

ENERGISING OUR CELLS

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Foreword

Traditional Western medicine dropped us and the sooner we realize it, the better. I strolled the hospital corridors for 40 years and I am still searching for the 'keys.' I learned if we don't worry about our health, no-one else will be bothered. I believe most medical conditions can be addressed by asking a few simple questions:

- Do you take all the required mineral, good fats, the essential minerals and vitamins?
- Is your Water energized with the added benefit of Molecular Hydrogen?
- Do you produce enough enzymes to tackle the many fibrous tissues caused by inflammation?
- Are your cells energized by a very affordable Pulsed Electromagnetic Therapy?

If your answer is yes – then I feel you will never need the expensive complex pharmaceutical products. Hopefully this book will open your eyes to many relatively unknown treatments. I wish to be your trusted partner assisting you on your journey, helping to absorb the information to help you meet your health targets, to assist and to maintain your own health. Health care ought to be cheap and every person should have an easy access of information to sustain their wellbeing.

You will soon notice my English is not that brilliant. I was born Dutch and spent my youth and early career in South Africa. I went to an Afrikaans school, spoke Dutch at home and I went to an English Church. I travelled extensively, and many times I tell people I was born in a suitcase. I started working as a doctor in Namibia, on the border of Angola, and was caught in a real war zone. Having to deal with landmine injuries isn't pretty.

I was fortunate to meet a kind Jewish doctor from Germany who changed my view regarding medicine. He taught me acupuncture and the results amazed me. I used it extensively on the underprivileged patients in Africa who could not afford antibiotics. Acupuncture helps pain relief, and it proved to be an excellent anti-inflammatory.

At the turn of the century, I immigrated to the United Kingdom. Here, I was fortunate in meeting Professor Sydney Bush, who taught me the importance of Vitamin C and its effect on our circulation. He had made several discoveries, involving Vitamin C treatment. Obviously, we don't need expensive X-Ray angiography, generating a shocking 700 new cancers every year in the UK's NHS. We can study the arteries of our bodies by merely looking at the arteries at the back of your eye via retinoscopy. I did experience many frustrating situations, but I think the saddest of them is to notice the young people's health deteriorating due to their 'no-care' attitude to the dangerous chemicals we face

today. 90% of the food at our groceries stores are refined and unhealthy – making you think why a quarter of our population is burdened by the metabolic syndrome.

Mental health today is vital, and we need to address this issue – as stress is the greatest cause of diseases. Personally I deal with this issue in a somewhat debateable way. I believe we need a hand from heaven to 'lift' us from our troubled world. True peace is attainable, if only we are willing to eat from the true bread of Life who is Christ. Each day we age, but having faith in Him, makes a part of us younger even if we age.

Let's face it our healthcare system is profit based. It's a sick business.

Once you open the door of your favourite GP, it will take him a few seconds to pick up his script pad and start writing.

They are taught to diagnose disease and give drugs, telling people they have high cholesterol, high blood pressure or Diabetes and it's all genetic and there is nothing they can do except take drugs. In other words. They are just all victims. Most patients just like the sound of those words, because then they don't have to take any responsibility for their health.

I am sickened by all of this and keep my distance, avoiding any medication.

Just seeing the ridiculous pharmaceutical commercials in our medical journals should be evidence enough of our twisted system.

Our Healthcare Industry is in a total mess – too expensive to maintain:

- It thrives on the pain and the suffering of human beings.
- It is the largest and fastest, in fact, the only, growing sector of our economy
- It benefits the pharmaceutical industry
- It is directly proportioned to your aches and pains,
- They start packing poison into your body since your birth.
- They poison our water and food

Think before taking a bite of your burger, or having a sip of that Cola.

Listen to what the experts says:

Dr Russell L. Blaylock, MD: - Neurosurgeon 'Major pharmaceutical companies are spending huge amount of money to influence what is taught in our schools. Pharmaceutical giants give large donations to major medical schools. They also financially support academic research projects that endorse their drugs, establish lucrative contracts with medical school professors for minor projects, and supply medical schools with learning material, conferences, and even lecturers. The brainwashing continues even after medical school. One study found that the top seven pharmaceutical giants earned more money than the top seven auto companies, top seven oil companies. And top seven airline companies (combined).'

Dr. Allan Greenberg, MD: 'As a retired physician, I can honestly say that unless you are in a serious accident, your best chance of living to a ripe old age is to avoid doctors and hospitals and learn nutrition, herbal medicine and other forms of natural medicine unless you are fortunate enough to have a naturopathic physician available. Almost all drugs are toxic and are designed only to treat symptoms and not to cure anyone. Vaccines are highly dangerous, have never been adequately studied or proven to be effective, and have a poor risk/reward ratio. Most surgery is unnecessary and most textbooks of medicine are inaccurate and deceptive. Almost every disease is said to be idiopathic (without known cause) or genetic – although this is untrue. In short, our main stream medical system is hopelessly inept and/or corrupt. The treatment of cancer and degenerative diseases is a national scandal. The sooner you learn this, the better off you will be.'

Dr. Charles E. Page, MD: 'The cause of most disease is in the poisonous drugs physicians superstitiously give in order to effect a cure.'

O.W. Holmes, (Prof. of Med. Harvard University): 'If all the medicine in the world were thrown into the sea, it would be bad for the fish and good for humanity.'

Dr Robert Henderson, MD: 'Every drug increases and complicates the patient's condition.'

Dr Henry Lindlahr, MD: 'The greatest part of all chronic disease is created by the suppression of acute disease by drug poisoning.'

Dr William Osler, MD: 'The person who takes medicine must recover twice, once from the disease and once from the medicine.'

Dr L.F. Kebler, MD: 'Why would a patient swallow a poison because he is ill, or take that which would make a well man sick.'

Carl C. Pfeiffer, MD, PhD: 'For every drug that benefits a patient, there is a natural substance that can achieve the same effect.'

Dr Robert E. Willner MD, PhD: 'My opinion, however, is that they (herbs) are superior 95% of the time to any pharmaceutical drug!'

Dr Rath MD: 'The pharmaceutical 'business with disease' is the largest deception and fraud business in human history. The product 'health' promised by drug companies is not delivered to millions of patients. Instead, the 'products' most often delivered are the opposite: new diseases and frequently, death.'

Dr Guylaine Lanctot, MD 'The medical establishment works closely with the drug multinationals whose main objective is profits, and whose worst nightmare would be an epidemic of good health. Lots of drugs MUST be sold. In order to achieve this, anything goes: lies, fraud, and kickbacks. Doctors are the principal salespeople of the drug companies. They are rewarded with research grants, gifts, and lavish perks. The principal buyers are the public – from infants to the elderly – who MUST be thoroughly medicated and vaccinated...at any cost! Why do the authorities forbid alternative medicine? Because they are serving the industry, and the industry cannot make money with herbs, vitamins, and homeopathy. They cannot patent natural remedies. That is why they push synthetics. They control medicine, and that is why they are able to tell medical schools what they can and cannot teach.'

Professor Albert Schatz, PhD 'Fluoridation ... it is the greatest fraud that has ever been perpetrated and it has been perpetrated on more people than any other fraud has.'

Dr. Charles Gordon Heyd. 'I am appalled at the prospect of using water as a vehicle for drugs. Fluoride is a corrosive poison that will produce serious effects on a long range basis. Any attempt to use water this way is deplorable.'

Dr. Henry G. Bieler MD 'As a practicing physician for over fifty years, I have reached three basic conclusions as to the cause and cure of disease. This book is about those conclusions.' 'The 1st is that the primary cause of disease is not germs. Rather, I believe that disease is caused by a toxemia which results in cellular impairment and breakdown, thus paving the way for the multiplication and onslaught of germs.' 'My 2nd conclusion is that in almost all cases the use of drugs in treating patients is harmful. Drugs often cause serious side effects, and sometimes even create new diseases. The dubious benefits they afford the patient are at best temporary. Yet the number of drugs on the market increases geometrically every year as each chemical firm develops its own variation of the compounds. The physician is indeed rare who can be completely aware of the potential danger from the side effects of all of these drugs.' 'My 3rd conclusion is that disease can be cured through the proper use of correct foods. This Statement may sound deceptively simple, but I have arrived at it only after intensive study of a highly complex subject: colloid and endocrine chemistry.' 'My conclusions are based on experimental and observational results, gathered through years of successfully treating patients. Occasionally I have resorted to the use of drugs in emergency situations, but those times have been rare. Instead, I have sought to prescribe for my patients' illnesses antidotes which Nature has placed at their disposal.'

It's estimated that all our 10-13 trillion of our body's cells get turned over every 100 days. Since air, water and food are the only things that enter our bodies, we literally are what we eat, drink and breathe! Our body needs regular Maintenance like doing regular exercises. It is essential to keep your internal organs and musculoskeletal system in a tip-top condition.

Foreword

The 7 things we LACK most

- Energy - PEMF
- Molecular Hydrogen
- Iodine
- Magnesium
- Boron
- Vitamin D3 and Osteoporosis
- Sulphur

The 7 Dirty toxins we need to AVOID most

- Fluoride
- GMO Foods
- Aspartame
- Beauty Products
- Vaccination
- Sugar/Fructose
- Trans-fats

Oxidative Medicine and more vital minerals

- Ozone
- Chlorine Dioxide
- Chromium and Vanadium
- Copper
- Colloidal Silver
- Selenium
- Silicon
- Zinc

Natures healing compounds

- Astaxanthin
- Bentonite clay
- Black Cumin Seed
- Cannabinoids
- Cholesterol
- Coconut oil
- Curcumin
- Diatomaceous Earth
- DMSO
- Food Enzymes and Fermentation
- Fulvic Acid
- Phytoplankton & Superoxide Dismutase (SOD)
- Vitamin C

The other specially designed foods/goods to make you ill

- Wheat
- Calcium deposits
- Fish Oil
- Iron overload
- Chemtrails and Morgellons

How to avoid chronic inflammation

WHERE DO I START? – WHAT DO WE LACK MOST?

To my knowledge, I will summarize the 7 things we lack most

1. ENERGY

PEMF – Pulsed Electro Magnetic Therapy

Nothing happens in the body without an electromagnetic exchange. Our body do crave energy and it begs for electromagnetic exchange to activate our cells. Once our cells lack the vital exchange of ions, then the cells become sick, depleted of energy. As a result there is not enough ATP, and the voltage of your cells drops and people who are sick have low voltages. With any injury, our cells are stressed, and the body creates a low power electrical signal to heal itself, to prompt the body's natural ability to repair any damaged tissue like a sprained ankle. Many factors can disrupt the signals, to 'slow down' the healing process, causing pain, inflammation and loss of function. PEMF therapy mimics these natural signals, it activates the normal healing process stimulating the growth and the repair of tissue. It rids the body of excessive fluids, promoting lymph drainage.

The first clear evidence of us needing PEMF, was discovered after the first human orbited the Earth. The Russian Yuri Gagarin went into space in the early 1960s and orbited our planet once, to return very ill. When he returned they learned he experienced symptoms of depression, diminished metabolism, reduced perception, bone tissue loss, and even muscle tissue deterioration. Yuri was outside the earth's gravitational force for merely 108 minutes. It is easy to see what prolonged PEMF deprivation could do to us. After Yuri's illnesses, research confirmed if we are deprived of the essential gravitational force of the earth, we will die. PEMF is vital known as 'the fifth element.' Along with food, water, oxygen and sleep, the body needs PEMF to survive. Zero field studies and many experiments on earth have proven that we need the earth's magnetic energy to survive. No matter where you go on earth, you will always get some amount of the earth magnetic energy, unless you go into space or enter a Faraday cage to partially block the earth's magnetic field.

The history of PEMF

- Over 5,000 studies have been published worldwide over the last 40 years demonstrating PEMF therapy's effectiveness healing 'soft-tissue wounds; suppressing inflammatory responses at the cell membrane level to alleviate pain, and increasing range of motion.
- The principals of Pulsed Electro-Magnetic Field (PEMF) therapy were first described by Nicola Tesla in 1898. Since the brain itself is an electromagnetic organ, stimulation with electromagnetic energy appears to be beneficial. Electricity is the currency of the brain.
- In 1956 two Japanese scientists discovered the so called piezo-electric effect of bones. By measuring the voltage between two electrodes attached over a mechanically bent bone, they proved that electrical properties exist inside bones.
- Todorov published the first book on modern electromagnetic field therapy in 1982 in Bulgaria. This work summarized clinical observations using magnetic fields to treat 2700 patients with 33 different pathologies.
- It was approved by the FDA for healing of non-union fractures in 1979 and in 2006 for the treatment of depression and anxiety. Pulsed Electromagnetic Fields are generated with an electrical device.

- Having healthy cells is not a passive process. Active, regular tuning-up of our cells is possible and essential to slow the aging process and reduce the risk of cell dysfunction. We are, after all, only as healthy as our cells. If unnoticeable cell dysfunction is not corrected, it can lead to diseases.

Benefits of PEMF therapy

- Cellular pH alkalinity increases dramatically allowing for better oxygen uptake and suppression of harmful toxins and infection.
- Cell viscosity shifts on the order of 16 fold, allowing liquids to flow into cell gates, and your lymph starts to flow.
- Increases the cells ability to absorb nutrients.
- Red blood cells separates in minutes in response to restored electrical charge (taking a positive charge and repel each other) which allows more surface area to transport oxygen.
- Increases the cellular level of oxygen absorption up to 200%
- Metabolism is improved. Nitric oxide is produced which enlarges blood vessels and increases delivery of oxygen.
- Relaxing of the vascular system with reduction of blood pressure by 20-30% within minutes of treatment.
- Electroporation increases allowing greater passage of solvent (H²O) to dissolve and excrete toxins, and allow greater uptake of supplements, medicines and herbs.
- Sodium potassium exchange is restored, reducing pain and increasing wound healing and bone mending up to 30%.
- Bones heal in 2/3 of the normal time and the body's ability to absorb calcium is increased. Osteopenia and osteoporosis are greatly improved with PEMF. Bone density and muscle mass are increased. Research has shown a reversal of bone loss by approximately 1% per month.
- Immune system is strengthened as it activates macrophages which are cells in the immune system that engulf pathogens.
- PEMF repairs damaged and diseased tissue, repairs torn tendons and fractured bones. Pain swelling, inflammation, and irritation are reduced while endorphins, serotonin and the body's natural healing processes are stimulated. Nerves regenerate. Range of motion is increased.
- Acts as an Anti-inflammatory, by reducing the enzymes up to 75%
- One of the most exciting aspects of PEMF is its impact on stem cells. Research is emerging which shows it has a positive effect on the body's ability to release its own stem cells and growth factors.

Previous studies have suggested that reduced blood flow to the prostate gland and inflammation contribute to the development of Benign Prostatic Hypertrophy (BPH). We know that PEMF has positive effects on similar conditions, so we thought it might also heal BPH or even better to prevent BPH from developing

PEMF devices

The first PEMF device was called a 'lightning' machine for a reason! PEMF works because it charges up your cells with electricity. PEMF targets the low voltage areas of your body especially chronic pain or areas of low voltage in your body. That is, places where the cells are low on energy for any number of reasons as injury, fatigue, illness, etc. In Japan, the word fibromyalgia does not exist as it is known as a Magnetic Deficiency Syndrome. So many modern lifestyle problems can be partially linked to not getting enough of the earth's healthy magnetism.

A PEMF machine sends extra electrical charge to those low energy areas using magnetic fields to transport them into the body.

It turns out that the intensity of the Earth's magnetic field is relatively weak between 0.3 Gauss at the equator, and 0.6 gauss at the poles. An MRI machine, for example, produces a truly high-intensity magnetic field up to 40,000 Gauss—and we know them to be safe when operated properly. PEMF systems, in contrast, tend to top out at about the 2,000 Gauss range.

The Earth primarily emits waves at a frequency range of 0 – 30 Hz, The earth is a living organism, and if there were a heartbeat to the earth it would be the Schumann resonance frequencies. Just as a tuning fork has resonant frequencies for sound, so the planet earth and the ionosphere surrounding it have resonance frequencies. The Primary Harmonics of the Schumann Resonance of the earth is the 1st Harmonic 7.83 Hz, 2nd Harmonic 14.07 Hz, 3rd Harmonic 20.25 Hz, 4th Harmonic 26.41 Hz and the 5th Harmonic 32.45 Hz

Can you guess which frequencies agree with our human body to promote optimal health?

Just remember that the Earth primarily emits this frequency range, our brains run and operate both day and night in this frequency range and our cells and tissues resonate to these frequencies and most amazingly, we actually emit from our hands these very same frequencies.

In my opinion the high energy devices are the most effective, providing 2400 to 21000 Gauss of Energy. The part that makes the machine so effective is not so much the power as it is the speed of the pulse. The pulse can deliver electromagnetic energy in 100 nanoseconds, penetrating the cell barrier to provide the body instantly with usable energy. This makes dramatic improvement possible in the shortest possible time. Most of the other known PEMF units pulsates at about 10 milliseconds per pulse. (10,000,000 nanoseconds) As a result the high energy devices relieves pain in one treatment of 60 seconds on average while most other devices relieve pain in 30 minutes to an hour, at best.

We cannot be overdosed by the PEMF, as electromagnetic energy is a natural thing found all around us. Using it stimulates the cell metabolism, which causes the cells to release toxins for elimination by the immune system. It is good to drink a large glass of water after treatment to help the body to flush any toxins that may have been released.

The high energy PEMF machines makes a loud 'pop' sound during treatment because of an internal 'spark' process used to generate the magnetic field. You immediately experience the pain relieving treatment. High Power PEMF is also known for improving mood, killing bacteria and strengthening the immune system. Low Power devices do have a positive result and they tend to be more for mood enhancement, insomnia relief and for depression rather than for pain management. They have good long term results.

Another important aspect of the PEMF is to determine how fast each pulse enters the body. This is important because the faster the pulse enters the body, the more energy the cell will receive. That's because the cell can only absorb electricity that moves fast enough to penetrate its cell wall! So, the faster the pulse, the more benefit you receive. High Power devices pulse faster than lower Power ones. You can tell by the treatment time it takes before you feel results! All you need to remember is this – the faster the pulse enters the cells, the shorter the amount of time you need to treat before you feel powerful results!

Evidence?

The best evidence that your cells are being recharged after exposing them to PEMF therapy is by viewing your blood under a microscope. The blood is taken before and after treatment with PEMF and viewed under the dark field microscopy. Red blood cells in a non-optimal body condition, are usually clustered together (Rouleaux formation), restricting their surface area for optimal oxygen and nutrient delivery. Immediate after the therapy, the difference is obvious when the red blood cells are de-clustered. The benefits are obvious. De-clustered blood cells are more fluid, allowing them to deliver nutrients and oxygen more effectively, restoring cells optimal efficacy. The result can be felt immediately by the person after using the full body PEMF therapy.

Its effects can also be compared on thermo-images, comparing the body temperature before and after exposing them to PEMF treatment. It causes a temperature increase by at least 1-2 Celsius after 8 minutes of treatment, demonstrating the effectiveness of improving blood circulation.

PEMF and the future

Finally our world realizes life is totally dependent on the 5th element, the 'unseen' or the magnetic field that surrounds us. Since the earth's magnetic field declined so rapidly, we can bring it back into our lives.

The PEMF ensures us of the most advanced form of **exercise** known to man because it works on a cellular level and it produces the same effect and benefit as hard physical exercise, but without the stress and strain on our muscles and bones. Because the Earth's magnetic field has become so weak, even elite athletes, marathon runners or people doing workout at the gym, are not getting all the benefits they can get painlessly. The good news is the PEMF encourages the cells to heal and as a bonus they help us to rid our bodies of all the toxins. None of us operate efficiently.

With illness, our cells are too acidic and do not have enough energy called ATP. When you restore the magnetic field up to what it should be, you excite the dormant cells, and it improves even glaucoma and macular degeneration making your eyes younger - you start to see things and your vision is more

acute. * The results of 30 patients with macular degeneration and glaucoma were presented at the 81st international Conference of Light and Vision on May 4, 2013 in St. Petes Beach, FL

It will ensure a healthier life as your chronic back pain improves, and your kidneys starts functioning properly. It benefits autistic children and eye contact is possible within three minutes. There are so many illnesses and we're suffering. So many illnesses plaque us like cancer, obesity, diabetes, osteoporosis, premature aging, headaches, infections, poor sleep and erratic moods, but all of that can be tied to a **deficiency in electrons**.

You can possibly cancel your knee replacement or shoulder surgery, and they can actually regenerate because it's been known for 50 years that if you had access to a PEMF, you could heal a broken bone that hadn't healed for 2 years; when the surgeons has no other choice then to amputate a leg or arm, PEMF may be the last option. PEMF needs to be part of our treatment package.

Now, with the extra benefit of magnetically induced cell exercise, our cells will start to take in the vitamin C that we swallow and the magnesium, and the essential minerals we know our cells need. Not only will it absorb the minerals, but the cells will also have the energy to do the essential **housecleaning**.

What is housecleaning? In a cell we call it autophagy. It's 'auto' for self and 'phagy' for cleaning.

Autophagy means that I can make anybody operate at a higher level because now, the cells have the energy flush the toxins from your body. It's long been known that cells accumulate toxins and we have no exhaust system to flush them out quickly. The accumulated toxins or the free radical form like a kind of trash heap inside the cell. In most instances, cells diligently sweep away this debris. If not, the cells are choked with trash and they malfunction or die. Faulty autophagy mechanisms contribute to the development of a range of diseases, including diabetes, muscular dystrophy, Alzheimer's and cancer. The slowing of autophagy as we reach middle age is also believed to play a role in aging. We need the housecleaning and that is the reason why after exercise we are pretty stiff the next day. With this kind of exercise, (PEMF) you will easier flush the toxins from your body.

Now we have the knowledge to apply this unique form of PEMF exercise to your body painlessly even if you're in a wheelchair or in a hospital bed with a broken back. We can exercise your body painlessly.

Few years ago they approved PEMF for treating **depression** after nothing else worked. One study reported that severely depressed patients who were taking pharmaceutical drugs for treatment and underwent brain evaluation with MRI machines, actually ended up experiencing dramatic improvement in their depression from the MRI machine itself. Though MRI machines are not intended to treat depression and anxiety, the machines use PEMF to analyze the body, and thus it produced surprising outcomes.

Many of those involved probably are unaware that these PEMF devices are similar to the PAPIMI device used in Greece for years for treating **cancer**. And now the FDA has approved the new NovoTTF (for tumour treating fields), that uses an electrical field to disrupt the division of cancer cells in the brain, and is being developed for use in patients with glioblastoma, although only after standard treatments fail. Even so, this is a major breakthrough! For the first time a cancer treatment that does

not help to kill you. PEMF generates micro electric currents and magnetic fields throughout the body, so it will do more than this newly approved treatment.

Your heart will pump better as the **viscosity of your blood** will improve. Your heart could pump something as thick as ketchup, but PEMF can change the viscosity of your blood to the same thickness as wine, so the heart is working less and you're getting more flow into and out of every cell in your body.

Locally, any injury, causes local or regional tissue oedema. Tissue oedema constrains the flow of blood, leading to increased viscosity in the area of the oedema. Systemically, when there is increased inflammation, there is an increase in fibrinogen, C-reactive protein, clumping of platelets and increased protein in the vascular and extravascular space. All of these can decrease the flow of blood, leading to increased viscosity. Improving viscosity is important since increased viscosity will often lead to poor delivery of nutrition, hormones and other natural biological chemicals to tissues locally, especially at the capillary level. In addition, increased viscosity tends to aggravate any pre-existing inflammation and increases the probability of developing clots or thrombosis in blood vessels. Clots or thrombosis can lead to major changes in circulation, not the least of which are stroke, heart attacks and pulmonary embolism, among others. Part of the problem is the red blood cells, tend to stick together when they are not fully charged. PEMF will fully charge the red blood cells so they will repel each other allowing much more surface area for the transport of oxygen. The PEMF alkalizes your blood and once the cells are more alkaline, oxygen actually leaves the hemoglobin and goes into that heart cell or that brain cell that's been causing you not to have much memory or that's been giving you no energy.

PEMF relaxes the vascular system within minutes, and definitely it increases the blood flow to your eyes and throat. We have proven that we can heal wounds much faster so that people don't take months to heal from a bad injury. Sometimes we can do it in days, but always at least a 30% increase in efficiency of healing.

We do know that you could take all of the calcium you want. Swallowing calcium is not the answer to making your **bones** strong. It's really more tied to vitamin K2, vitamin D and magnesium, but with the PEMF you will help reverse osteoporosis and you will help get rid of osteoarthritis.

PEMF causes **electroporation**. The membrane of every cell will open momentarily to allow the nutrients to enter the cells, and the toxins to escape. It assist an inflamed liver, massaging their cells. The massage causes a cellular opening of the cell walls, and the results can last from three to five days, and repeated PEMF therapy often provides substantial relief.

Drugs don't work because they challenge the already damaged liver, and make a bad problem worse. This explains why conventional therapies have such poor results. Anti-inflammatory drugs do not benefit a liver inflammation.

The electroporation allows nutrients to enter your cell to enable it to work and it includes the pumping heart, the kidneys or any other organ.

Part of the electroporation is tied to what we call the sodium potassium exchange. Swollen feet needs to push the sodium out of the cells, and the potassium needs to enter it. Then the cells will become alkaline, which means they will take up the oxygen and start to work, but it also needs the essential minerals we talked about so often. If our feet are swollen it is compared to a sub optimal battery that's 90% discharged. We don't absorb all the available energy from the earth's crust, we are not full charged and we ought to have a fully charged battery.

We knew in 1961 that Dr. Otto Warburg received a Nobel Prize for his work in cancer. He told everybody cancer only starts in cells that have become anaerobic. The reason they are anaerobic is they don't have the energy spark a normal metabolism, so they've gone into a basic, fermentative, unhealthy metabolism. He said it's because they're toxic.

2. MOLECULAR HYDROGEN

HYDROGEN (H₂) A DRINK TO BETTER HEALTH

Hydrogen is the smallest, most abundant and mobile element in the Universe! Molecular hydrogen has a promising future, as it proved to be safe, simple and inexpensive. Without a doubt, it is the most powerful antioxidant and very selective. This therapy will become the architect of ALL health maintenance, disease prevention and to treat our most common maladies.

Our interest in Hydrogen (Molecular Hydrogen) was sparked in 2007, when Japanese researchers discovered the selective oxidation of hydrogen, to benefit the therapeutic effect on various diseases and injuries. Since then, there are hundreds of peer-reviewed papers reporting the positive effects of hydrogen to combat most human diseases.

While the people in the West debate whether hydrogen water is for real or quackery, the people in Japan embraced this technology. Hydrogen energizes our water (70% of our body) to make our body function properly.

Our health and wellness is not supported by our PSA level, cholesterol, blood pressure, the ORAC score or the pH value of our water – No the most important number is the number 1 on the table of periodic elements, 'Hydrogen.' To be more specific diatomic molecular hydrogen. That highly active and tiny hydrogen makes the difference.

Now some chemistry:

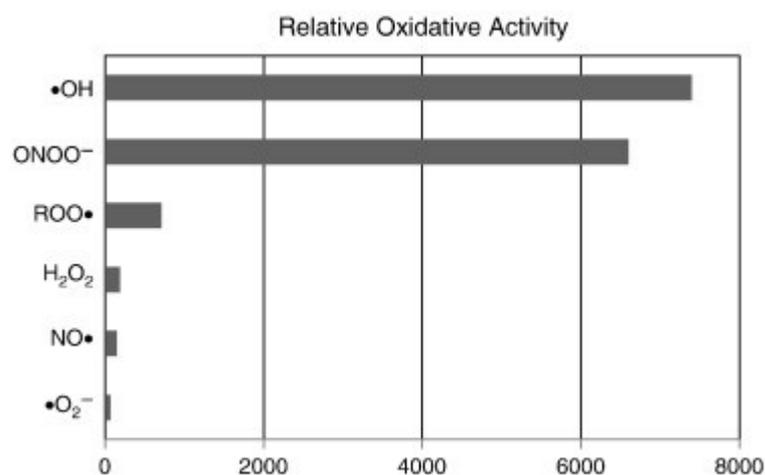
Hydrogen rich water contains active hydrogen ions that act as powerful antioxidants in your body. Our body absorbs the H₂ and randomly convert it to two hydrogen anions, (H₂ = H⁻ + H⁻) more commonly termed as active hydrogen. Its mission is to remove the damaging oxygen radical.

What is a free radical

They are oxygen (O) containing molecules with an impaired electron. They are everywhere. Free radicals ricochet through our body and kill healthy cells. If they are not neutralised quickly, they cause oxidative stress and your cells and DNA are vulnerable; it ages you. The damaging Oxygen is also known as Reactive Oxygen Species (ROS) which are notorious for destroying our DNA. It is the leading cause of all diseases such as cancer, stroke, rheumatism, high-blood pressure, aging, arteriosclerosis, etc.

Hydrogen is the master antioxidant because it scavenges the toxic radical. The most damaging are

- hydroxyl radical, (OH⁻) the strongest of all the radicals – is changed to water (H₂O)
- and the equally potent oxidant peroxyxynitrite (ONOO⁻) is absorbed by the hydrogen.



Due to its small size, Hydrogen diffuses rapidly into our nucleus and the mitochondria. (The powerhouses of our cells) It also crosses the blood-brain barrier, although most antioxidant compounds cannot do this. Once the molecular hydrogen (H₂) is absorbed through the small intestines or our airways, it will seek the hydroxyl free radicals creating a water molecule in our cells (2OH⁻ + H₂ → 2H₂O). It changes the damaging OH⁻ radical

into water. Its mission is; cellular hydration, detoxification, and increased energy.

HEALTH PROBLEMS that may be beneficially affected by hydrogen therapy include, to name a few, atherosclerosis, ischemia-reperfusion injury (as occurs in heart attacks and strokes), diabetes, stress-

induced cognitive impairments, Parkinson's disease (as shown in animal models), and various aspects of the metabolic syndrome (e.g., insulin sensitivity, glucose tolerance, and endothelial function).

In a nutshell:

- Hydrogen- becomes an anti-oxidant, reducing damages in the body, thus also ultimately reducing your immune system workload. Thus it helps auto-immune disease.
- Hydrogen- literally fuels the ATP engine that powers every cell in the body. More fuel means more work can be done, less food needs to be eaten, and less food further reduces the oxidative load the body has to deal with.
- Less Radiation the Demon of our modern living. The damages caused by radiation is largely due to the hydroxyl (OH-) radical, and hydrogen targets them the most. Our gastrointestinal tract is one of the most susceptible organs to radiation, and the common misnomer of irritable bowel disease, could easily be 'radiation induced injury.' For example, studies done on the mice, found that plasma SOD (superoxide dismutase) and GSH (glutathione) concentrations were significantly higher at 12 hours after irradiation in the hydrogen treated group as compared to the control.
- Hydrogen boost our body's defences by increasing the production of our natural antioxidants such as glutathione, superoxide dismutase, (SOD) and catalase.

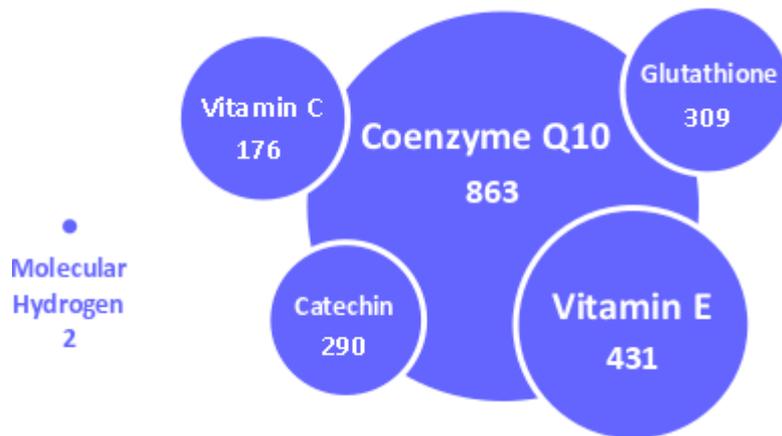
Why do we have free radical?

- They are the by-products whenever energy is generated by our mitochondria.
- The food we eat is a source of free radicals.
- 2-5% of the oxygen we breathe is converted to free radicals. The more oxygen we breathe, the more radicals we produce. It's especially true in athletes or people with a more active lifestyle.
- Smoking, exposure to ultraviolet rays, air pollution and don't forget - psychological stress.

We are like a motor engine not running efficiently. We can boost our engine (body) by giving it Hydrogen. Our motor vehicles consumption can improve by up to 35%, making use of a simple HHO cell, generating hydrogen. Makes you think.

Hydrogen can easily slice through any cellular membrane, as if they didn't exist. They enter the mitochondria and the nucleus of cells, cross the blood-brain barrier, and exert their positive effects in tissues and organs throughout the body.

Therefore, it's not surprising that benefits of H₂ therapy have been demonstrated in animal models and/or human studies in a wide range of conditions, to treat challenging traumatic brain and spinal cord injuries, Parkinson's, Alzheimer's, strokes, heart attacks, vascular disease, diabetes, liver and kidney disorders, autoimmune conditions, and lung problems. Many antioxidant supplements will not prevent cancer, myocardial infarction and atherosclerosis, as they are too big. The larger sized antioxidants has limited therapeutic success and they are not selectively taken up by the mitochondria. Since H₂ reduces the OH- radical, and it does not affect either Oxygen or hydrogen peroxide, we propose that the adverse effects of H₂ are very small compared to other antioxidants.

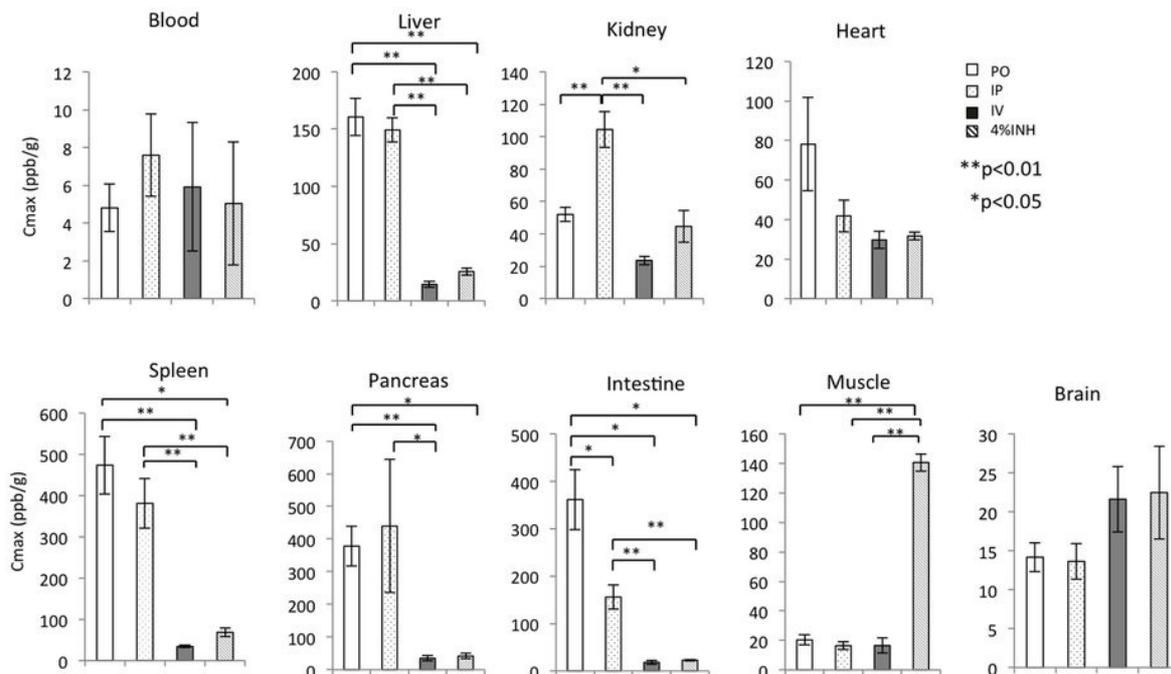


Comparing the Hydrogen atom to the other common, rather large Antioxidants.

There are several methods to ingest or consume H₂

- inhaling hydrogen gas,
- drinking H₂-dissolved water (hydrogen water),
- taking a hydrogen bath when you visit Japan,
- injecting H₂-dissolved saline (hydrogen saline) into a vein,
- dropping hydrogen rich saline solution onto the eye,

Hydrogen gas inhalation as a disease remedy, received great interest.¹ Hydrogen gas is colourless, odourless, tasteless and a highly combustible diatomic gas. Hydrogen gas is flammable only at temperature higher than 527°C. Hydrogen has no cytotoxicity even at high concentration.² Furthermore, safety standards have been established for high concentrations of hydrogen gas for inhalation since high pressure hydrogen gas is used in deep diving gas mixes to prevent decompression sickness and arterial gas thrombi.²



Comparison of the Cmax (peak) of the hydrogen concentrations in the arterial blood and tissues of the liver, kidneys, heart, spleen, pancreas, intestines, muscles and brain after the oral, intraperitoneal, intravenous administration of 5 ppm of hydrogen super-rich water / hydrogen super-

rich saline and 4% hydrogen gas inhalation. In all experiments, the data were analysed for more than three rats per group and expressed as the mean \pm SEM (* p < 0.05; ** p <0.01).

<http://www.nature.com/articles/srep05485/figures/5>

In the above table, 4% Hydrogen gas is inhaled and it competes with the super saturated Hydrogen solution of 5 PPM, and also intra venous Hydrogen. http://7ppm-suisosui.jp/yakurisayou_en.html The highest possible PPM we can achieve via our filters is 1.6 PPM, but most are in the region of 0,6 PPM – even the very expensive Kangen machine. H2Blue Hydrogen Test Kit measures the real amount of hydrogen in the water, embarrassing many companies. <https://www.youtube.com/watch?v=BjcWZ5ebAh8> Hydrogen gas poses no risk of explosion in air and in pure oxygen when the concentrations of Hydrogen is less than 4.6 %, however, safety could be a concern and the desired concentration of H₂ must be monitored and maintained with an approved and commercially available tool.

Hydrogen Water Hydrogen is dissolvable in water. H₂ will rapidly penetrate glass or plastic walls while aluminium containers are able to retain hydrogen gas for a longer period of time. Since inhaled hydrogen gas acts rapidly, it is unsuitable to be administered continuously. In contrast, hydrogen water is portable and administered easily.⁴

Hydrogen water can be made by several methods:

- Hydrogen water can be generated by electrolysis (passing an electrical current through water), which splits H₂O into O₂ and H₂ and dissolves it in the water. Water ionizers derive their benefits from the molecular hydrogen. Kangen water is a good seller but expensive. The plates ought to be Titanium, as stainless steel plates accumulate chromium.

- But there's a more convenient, cheaper and effective way to make H₂ water. Metallic magnesium in water produces a chemical reaction that breaks the bonds in water molecules and yields molecular hydrogen. Ultrastream (Alkaway) has a system that uses no electricity and it has no corrosive electrodes. When the micronized elemental magnesium is dissolved in water, it generates molecular hydrogen.

- Another method is to simply drop a tablet in a bottle full of water, close it tightly and for wait 10–15 minutes as hydrogen micro-bubbles are generated and dissolve in the water. Presently it is in a more convenient capsular form, to be swallowed.

Hydrogen Bath. Hydrogen can easily penetrates the skin, to distribute throughout the body. Thus, taking a warm water bath with dissolved H₂ is a method of incorporating H₂ into the body.

Intra-venous Hydrogen. Even though oral administration is safe and convenient, H₂ in water tends to escape over time and some H₂ is lost in the stomach or intestine, making it difficult to control the concentration of H₂ administered. Administration of H₂ via an injectable hydrogen saline will cause greater concentrations within the blood,⁶ similarly to inhaled hydrogen.

Eye drops. Glaucoma of the eye was improved by dissolving H₂ in saline, to directly administer it to the ocular surface.⁷ When H₂ eye drops were continuously administered, the H₂ concentration increased in the vitreous body and the OH⁻ radical decreased during retinal ischemia-reperfusion. The maximum concentration of H₂ in the vitreous body reached approximately one third of the value observed on the ocular surface.⁷

More uses for Molecular Hydrogen

- Chronic physical stress enhances oxidative stress in the brain, and impaired learning and memory.⁸ Consumption of hydrogen water suppressed the increase in oxidative stress, and prevented cognitive impairment. Thus, continuous consumption of hydrogen water reduced oxidative stress in the brain. It helps stress-induced decline in learning and memory tasks.⁴

- In Parkinson's disease, mitochondrial dysfunction and the associated oxidative stress are major causes of dopaminergic cell loss in the substantia nigra.⁹ Hydrogen water prevented both the development and progression of nigrostriatal degeneration. Hydrogen water likely retards the development and progression of Parkinson's disease.¹⁰

- Atherosclerosis. Oxidative stress is involved.¹¹ It proved that the consumption of hydrogen water has potential to prevent arteriosclerosis more effectively than other antioxidants.¹²
- Metabolic Syndrome. It's common due to our body habitus, resulting in oxidative stress.¹³ Long-term drinking of hydrogen water significantly controlled fat breaking it down, despite no change in the consumption of food and water. Moreover, drinking hydrogen water decreased our levels of plasma glucose, insulin and triglyceride, the effect of which on hyperglycaemia was similar to diet restriction. It fights obesity, diabetes and the feared metabolic syndrome.¹⁴
- Hydrogen decreases the oxidative stress during brain injury.³
- Sepsis, a multiple organ dysfunction syndrome, is the leading cause of death in critically ill patients.¹⁵ Hydrogen gas inhalation significantly improved the survival rate and organ damage of septic mice.¹⁶
- Hydrogen protects us from the harmful effects of radiation, and it was proved in cultured mice cells.¹⁷ Cosmic radiation is known to induce DNA and lipid damage associated with increased oxidative stress and remains a major concern in space travel. H2 administration to astronauts by either inhalation or drinking hydrogen water may potentially prevent radiation-induced adverse events.¹⁸

The million dollar question: Is alkaline water better than plain water?

The health benefits of ingesting molecular hydrogen gas (H₂) for humans, surprised the scientific world in 2007, when a study appeared in Nature Medicine.³ Since that famous study, there has been over 600 peer reviewed studies in recent years and they have been published in trustworthy scientific and medical journals. To date, the benefits of ingesting H₂ has been found to be beneficial for every human organ, helpful in more than 150 specific human diseases

To date, the alkaline ionized water story has never received any support from either the scientific or the medical fraternity and deride the claims being made by the sellers of alkaline water ionizers. In fact, a properly maintained alkaline water ionizer do produce molecular hydrogen creating the health benefits. It is important to note that the benefits of molecular hydrogen were discovered earlier in the Kangen machines, but only in 2007 they can explain its effectiveness. The wheel keeps turning, and we need to embrace this new science, abandoning the alkaline myth and the micro-clustering of water.

Because alkaline water has a higher pH level than does plain tap water, proponents say that it can:

- Neutralize acid in your bloodstream
- Improved your digestion,
- Slow down the aging process,
- Boost your body's mineral content, preventing bone loss.

But such claims have not been properly tested in controlled scientific studies.

Trust your body it can easily maintains a healthy pH balance, unless you have a kidney or respiratory disease. Our bodies are made wonderful and it's adaptable. If we have an imbalance, we have ways to correct it. For example, if your blood becomes too acidic, you breathe more and the carbon dioxide will escape. When I worked at the Accident and Emergency department, I accused a stressed and healthy looking woman of hyperventilation. The reason she hyperventilated, was she had a major heart attack and she merely tried to correct her acid-base imbalance. I felt terrible and asked her to forgive me.

Extremes in either being too acidic or too alkaline, can cause problems. Your body wants something closer to neutral, and it has ways of achieve it.

Tyler LeBaron, is the founder of the molecular hydrogen foundation and is recognized as a respected authority in the study of molecular hydrogen. He tells his audiences that one teaspoon of baking soda mixed in a glass of water will neutralize more acid than 10,000 litres of pH 10 alkaline water. His explanation is that bicarbonates is a buffer and water is not. Our bodies naturally produce

bicarbonates to maintain homeostasis in the GI tract and blood. He refutes the idea of micro-clustered water. <http://www.molecularhydrogenfoundation.org/>

I believe the easiest and cheapest means to get the much needed Hydrogen into your body, is by using the electric free water filter – Ultrastream.

Is Hydrogen safe?

Hydrogen (H₂) is reported to have no cytotoxicity even at high concentrations. The safety of hydrogen for humans is demonstrated by its application in Hydrex, an exotic, breathing gas mixture of 49% hydrogen, 50% helium and 1% oxygen, which is used to prevent decompression sickness and nitrogen narcosis during very deep technical diving.²

BROWN'S GAS

When we separate distilled water via electrolysis, then HHO or Brown's gas is created. It has 2 parts hydrogen and 1 part oxygen, enough hydrogen to make a balloon disappear in the sky. Water has 2 Hydrogen atoms bound to 1 Oxygen atom. There are many names for this gas mix such as Brown's gas, and HHO. The wonderful thing about this gas is the by-products is water, and there is no risk to pollute the air with smog or fumes. It has multiple uses:

- **Breathing Brown's Gas.** I'm shocked how far the Orient is ahead of us by using Brown's gas at walking in clinic, like Taiwan. It's as easy as getting a cup of coffee. Brown's gas with enough air is not explosive and your lungs are 'designed' to get gasses into your blood stream, the most efficient delivery system to the body. If the gas is explosive, then it's a bad idea – but this mixture is non explosive. The volume of hydrogen falls below the lower ignition limit of 4% to make it safe. I Do Not recommend breathing Brown's Gas undiluted; if you do so, you do it at your own risk! I recommend the use two bubblers, similar to the oxygen humidifiers. It forces the water to flow through water twice before you breathe it. We need to constantly change the water in both bubblers, and preferably use filtered or deionized water - so you won't be inhaling chlorine and other gasses often found in tap water. If you use pure water and your electrolyser isn't producing foam in the exit pipe on top of your bubbler, there's no reason you couldn't drink the water or give it to your cats. Our bodies need the hydrogen and it's very hard to get! Hydrogen attaches itself to other atoms to make all kinds of different molecules. So our bodies have developed the ability to get hydrogen by splitting the molecules in our bowels – causing our constant winds. We can produce up to 1 litre per day! As we age and get sick, our bodies are less efficient to produce the much needed hydrogen! The bowels of most elderly people are distended due to constipation, lacking the ability to form hydrogen
- **Drinking Water.** Brown's gas) is bubbled through clean water, and the water absorbs the oxygen and hydrogen. We think there is an additional energy is added to the water, restructuring it. Drinking the enhanced water is to make us more alert like drinking a cup of coffee, without the side effects. Chlorinated water, coffee, carbonated and sweetened fluids are generally dehydrating. Most of the diseases known to mankind, including aging, can be prevented or mitigated by hydrating the body. It is super hydrating, far superior to regular water. Chlorine is a deadly poison and attempts are made to put in just enough to kill the microorganisms and not the person drinking it.
- **Muscle Relaxation; Pain Relief.** When Brown's Gas is applied to the skin, hydrogen and oxygen are absorbed which then flows (via blood) to muscles and joints that have problems due to dehydration, resulting in nearly instantaneous relief of pain caused from cramps and swelling. This relief continues for extended periods of time. Bagging a limb will be very helpful for arthritis and psoriasis.
- **Speed Healing of Wounds.** When Brown's Gas is applied to a wound, hydrogen and oxygen are absorbed which kills anaerobic microorganisms and assists cell regeneration.
- **Underwater Breathing Gas.** Brown's Gas is nontoxic and breathable. When used as an underwater breathing gas it allows divers to stay underwater longer and come up faster because the hy-

drogen does not cause the bends as much as nitrogen or helium. This would allow much more use of ocean resources.

Many more uses of Brown's Gas in everyday life

Did you know it is the world's most effective cutting torch.

Brown's Gas is made from water and returns to water as it burns...

The flame has no radiant heat. You can run your hand rapidly through the flame as you could a candle... If you did that with other welding torches, it's time for a hospital visit!

The flame adjusts itself to whatever it is focused on. An example is if it is directed to lighter materials as Aluminium, it has a minor reactions to heating under the gas. On the contrary if you direct it to dense materials like stones, bricks, or concrete, it become instantaneously white hot. It melts it quickly making your brickwork non porous.

Brown's Gas can cause tungsten to go from metal to vapour with no melting. You will hear small 'pop' an implosion but no explosion. You have the SAME implosion when you direct the torch to the nuclear rods – making it disappear in thin air. It requires a temperature found on the surface of the sun (5,900° Celsius) and yet your fingers may be less than an inch away without experiencing a burn from the flame.

It can create new industrial materials. Brown's Gas can both make and weld rubies together.

Brown's Gas can weld sapphires together. When Brown's Gas cooks rocks, it turns them into semiprecious material and as an example feldspar (30% of the earth's crust) can be turned into a transparent form of moonstone

It vastly increases recoverable mineral. In tests conducted by several mines, Brown's Gas treated ore allowed recovery of up to three times more mineral. Brown's Gas can be used to treat waste dumps of obsolete mines, recovering more mineral than the mine originally produced. Again, this application is worth billions of dollars.

Super-Efficient Room Heating. Generally, Brown's Gas is a poor way to space heat, because the flame radiates very little infrared (heat) energy. However; there is evidence that, using catalytic materials, a Brown's Gas heater can be constructed that radiates huge amounts of heat and does not require any room venting. The efficiencies stated are 400%. In other words, a 1000 watts input will produce 4000 watts of heat.

Surface Treatment of Materials. When a Brown's Gas flame is played over the surface of materials, there are effects that can be beneficial. Iron becomes rust resistant, and can be surface hardened to prevent wear. Brick and cement become corrosion and water proof. May be an answer to your houses dampening problems.

Neutralization of Radioactive Waste. It has now been officially proven (in Canada) that Brown's Gas can neutralize radioactive waste in seconds. This neutralization treatment can take place right at the nuclear reactor so there is no need to transport or store nuclear waste.

There are many different types of radioactive isotopes. When Brown's gas is used on Cobalt 60, it eliminated 96% of the radioactivity in under 10 minutes. Time can be increased to be more effective. Americium was reduced by 99% in under 5 minutes. Brown's Gas can diminish the radioactivity from the spent fuel rods from nuclear reactors with one or more burns to the point where it no longer threatens the Northern Hemisphere. The radioactive water can be neutralized by splitting it into hydrogen and oxygen and burning the resulting gases. It will certainly require the involvement of our governments to develop it properly.

The cost of nuclear waste disposal at a nuclear power plant with Brown's gas is less than 1 year's storage cost. It's affordable. It can clean the Fukushima crisis created by governments. Managing and storing nuclear waste is a huge industry with vested interests who did not want to lose lucrative management contracts for this life threatening waste by having the problem eliminated. The government uses these wastes to create new weapons, poisoning our lands and oceans culling our marine life. Governments demand more control and money when they make mistakes, and they make us to pay. They make stupid statements like:

'The problem is even bigger than we thought so we need more taxes and control of you and your family.' I am confident we can use the nuclear waste disasters as a springboard to create many opportunities for the gas.

<http://mythicspiral.blogspot.co.uk/2016/01/burning-water-fukushima-solution-part-2.html>

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3. IODINE

When hear of iodine, they think it's only good for the thyroid. Indeed our thyroid needs it badly, but it is also concentrated in the salivary glands, the lining of the stomach and the small intestine, the breasts and ovaries, the eyes, and the part of the brain where our cerebro-spinal fluid is produced.

Iodine is one of the most important minerals - your body requires it for healthy cellular and metabolic functioning. Dr. David Brownstein wrote a book: Iodine: 'Why You Need It and Why You Can't Live Without It.' He says iodine is the most misunderstood nutrient. After 12 years of practicing medicine, I can say that it is impossible to achieve your optimal health if you do not have adequate iodine levels. I have yet to see any item that is more important for promoting health than iodine.' If Dr. Brownstein is right, and I agree that iodine deficiency is a major problem - our diminished intakes will spark many major health problems.

Deficiency of iodine in any tissue can weaken our immune system. Some symptoms of iodine deficiency are brain fog, nodules in the skin, joints like with arthritis, fibrosis and fibroids, fibromyalgia, and chronic fatigue. Did you know that well over 90% of people are iodine deficient? Our exposure to bromine, chloride, and fluorine is to blame for the alarming deficiency today. We are suffering and our thyroid too. People just associate iodine with the thyroid gland, but really, iodine is consumed by every single cell in our body. It's important to get the right type and the proper type of iodine into your cells.

The iodine in your body is battered by endocrine disruptors – meaning our much needed iodine are swapped by a 'look alike.'

The chemicals, the toxic metals, the pesticides, the plastics, are all endocrine disruptors. Your thyroid is an endocrine gland and it needs the iodine. Today our thyroid gland is plastered by the many 'look alikes' due to all the polluting chemicals. Yes the chlorine in the water and the bromide in our bread, has a major effect on the thyroid gland and many other organs in our body.

The history of IODINE

So, how was iodine developed or how was it discovered?

- It was actually discovered in 1811. It was discovered by a scientist who experimented burning seaweed into ash. So, it hasn't even been around that long.
- In 1829, there was a French physician, Dr. Lugol, who created Lugol's solution. Anybody who knows about iodine is familiar with Lugol's solution. He bonded the iodine to a potassium molecule, making it water-soluble and actually it unlocked its antiseptic qualities, making it more stable. Lugol's solution is potassium iodide.
- Around 1860, there was a Swiss physician that found that iodine could be used to treat goitre. A goitre is nothing more than a cyst that grows on your thyroid gland.
- In 1924, iodized salt became available in the U.S. as a means to treat goitre. Because they found that there was so many goitres along that western belt of America, they did a study. They took a group of girls and gave them potassium iodide and they took another group of girls and didn't give them anything. The ones they gave the iodine to, the goitres went away. So, that was a great discovery, even though it was refined salt. I believe in using a Celtic salt or Himalayan crystal salt, contains all of the minerals and the nutrients, everything you need on a daily basis with trace amounts of iodine.
- In the 1960's iodine was added to bakery products as an anti-caking agent. 1 slice of bread contained the RDA for iodine
- In the 1980's, bromine was substituted for iodine due to misinformation about iodine. Later due to prevalent heart disease, they thought salt was the main cause of heart disease. So, at that point, they recommend people don't eat salt. And to this day, they still recommend less salt. That causes an iodine deficiency. Today many salts don't even have the added iodine. That raises the question if we have enough iodine in our salt? The purpose of iodization of salt was to prevent goitre and cretinism and was never meant for optimal iodine requirements by the human body. We need to ingest at least 5mg of iodine in order to control fibrocystic breast disease. In this particular it equals to 68 grams of salt.
- In 1997 Dr. Ghent reported that he noticed that iodine benefitted fibrocystic breast disease.

IODINE triggers some cells to die.

Iodine plays a crucial role in the body's elimination system by inducing apoptosis, or what is called programmed cell death. This is vital because this function is vital to growth and development, destroying the cells that are a threat to us, like cancer cells and cells infected with viruses. If we lack iodine, then the cancer cells will think they are immortal. Iodine makes them die.

The World Health Organization says that iodine deficiency is the largest single cause of mental retardation. Iodine also detoxifies the body by removing mercury, fluorides, chlorides, and bromides.

What is the recommended dosage of IODINE?

The RDA for iodine is around 150 mcg but according to Dr. David Brownstein, we should be getting far more than the government recommended dose. Dr. Brownstein and other researchers recommend doses ranging from 6-50 mg/day for most people. Some researchers recommend high doses, like 50 to 100mg a day, to replenish the body's iodine and remove any microbes that have built up over the years because of the body's weakened immune system due to all toxins in our environment. Given that iodine has no side effects like pharmaceuticals, and there is no development of resistance against it, it's hard to argue against taking high dosages.

How long does it take to reap the benefits?

While it can take many months to clear out toxins or to help something like ovarian cysts, ***the beneficial effects on the brain and energy levels are much faster.*** People who take iodine in sufficient amounts report that they have a greater sense of well-being, increased energy, and a lifting of brain fog and sharper mental abilities.

Japan 60 million mainland Japanese consume a daily average of 13.8 mg of elemental iodine in the form of seaweed, and they are one of the healthiest nations based on overall well-being and cancer statistics. The Japanese consume 100 times the recommended RDA! They have the lowest incidence of breast cancer in the world.

Iodine Therapy is extremely safe. However, rarely a person could react to very high doses of iodine with hyperthyroid symptoms such as anxiety, high pulse rate, high blood pressure, sensitivity or bulging eye and vision disturbances. A high iodine intake can sometimes normalize an overactive thyroid and its symptoms, but if they develop or increase instead, then avoid iodine remedies. When we increase the dose of iodine supplements to over 50 mg daily for a long period of time, watch for possible over-active thyroid function.

You can monitor your thyroid function by checking your temperature before getting up in the morning with Basal Temperature Test. Measure your temperature by mouth. It will not be inaccurate though if you have a sinus infection or cold. Women before menopause measure in the first half of the cycle before ovulation and best in the first week after the start of a new period. The temperature should be 36.5 degrees C. (97.6 degrees F) or higher, otherwise the thyroid is likely to be under-active. As Iodine therapy continues, the temperature will move into the normal zone.

Ideally, everyone should be tested for iodine deficiency with the IODINE LOADING URINE TEST. If you want to get pregnant, it would be a good idea to get tested firstly. If you experience extreme fatigue and just can't lose weight, the iodine test could give us a clue. Any woman who is at risk for breast cancer surely would want to know if she is deficient. If she has had breast lumps, ovarian or uterine fibroids, then iodine could dramatically help. Men are also at risk and they can develop prostate problems. A person with Diabetes should also consider the test. Anyone who has reoccurring Candida could overcome this with Iodine therapy as indicated in a deficiency from the test.

The proper way to do the test is by taking a large dose of Iodine/Iodide (50 mg) and then collecting your urine for 24 hours. If most of the iodine shows up in your urine, (90% or more), that indicates that you have all of the iodine that you need. If less shows up in your urine, then that is an indication that you are in a deficient state and your body needs more iodine. Doing this test is especially important if you already have some sort of thyroid issues. You do not want to just start taking iodine without knowing that there is a need for it first.

Once a person is sufficient in iodine from taking a supplement, the dose to maintain sufficiency is 12.5 mg iodine/iodide daily. The thyroid likes the iodide form while the reproductive tissues like the iodine form. Iodoral is a tablet form of the original Lugol's Solution. 2 drops of Lugol's solution equals 1 tablet of Iodoral. Lugol's solution is difficult to continually take due to its unpleasant taste. It is suggested to start with ½ tablet Iodoral daily (6.25 mg) for a few weeks first. Expect to release mucus from your respiratory tract and maybe from the bowels. Weigh yourself to monitor your weight, especially if you are very thin as Iodine can stimulate the metabolism. Go slow in dosing. The average Japanese woman consumes Iodine equivalent to 1 tablet Iodoral (12.5 mg Iodine) daily. It is suggested to work up to 12.5 mg. It promotes the excretion of toxic minerals, such as lead, mercury, and cadmium as well as the toxic halogens fluoride, chlorine and bromide.

The **RDA** for Iodine or really dumb advise is

Adult male	150 mcg/day (0.15mg/day)
Adult female	150 mcg/day
Pregnancy	220 mcg/day
Lactation	290 mcg/day

The RDA doses of iodine are ineffective in preventing oxidative DNA damage and have no anti-cancer effect in the body.

An estimated 95% of individuals are deficient in iodine! Iodine deficiency is one of the underlying causes for the high rate of cancer (particularly breast, lung, prostate and ovary) as well as the high rate of autoimmune disorders.

The different forms of IODINE

Lugol's Solution is the historical norm and has been used safely and successfully all over the world since the 1800's. The Japanese high intake of Iodine, their seafood-based diet is estimated at 12-13mg of iodine per day. That is equal to about 2 drops of Lugol's Iodine Solution at 5% iodine. Its tableted form is Iodoral 12.5 mg.

Now, Nascent Iodine is formed by processing the iodine through an electrical field, which makes a form of iodine that is more reactive and absorbable in the body. ***The best form of supplemental iodine is 'nascent iodine' or what is also referred to as atomic iodine.*** It has superior absorption because of its molecular structure.

Since this mineral is so valuable in so many energetically active tissues, the more reactive form expands the territory of where it can be quickly used. If a body is iodine-deficient, then using this form permits a more rapid normalizing in many tissues in the body. During this time the body recognizes this atom as the same nascent iodine it produces in the thyroid in order to make the T3 and T4 hormones. The atomic iodine is perhaps the least toxic and least irritating of all the iodine formulas available. Both glycerine and alcohol may be used as a base for nascent iodine, but glycerine offers more health promoting benefits I prefer it for obviously iodine-deficient patients for the first critical few weeks. Then Lugol's becomes preferred.

The downside here is that nascent iodine is shorter-acting, requiring several doses per day, and when levels are normalized the dosing must decrease because of possible irritations or sensitivity issues with an excess. It takes a little more attention from a clinical viewpoint to be safe long-term. Many people who take iodine report that they have a greater sense of well-being, increased energy, and a lifting of brain fog. They feel warmer in colder environments, need somewhat less sleep, enjoy improved skin complexion, and have more regular bowel movements. The most obvious answer is that iodine is a trace mineral used to synthesize hormones and is a mineral that is very important to how hormones function at the hormone receptor sites.

The concern about radiation poisoning in our toxic modern environment has been amplified since the Fukushima disaster. The radioactive isotope of iodine is a common pollutant from nuclear reactors, and Iodine 131 is also used in allopathic medicine to kill off overactive thyroid tissue. Supplemental iodine that is not radioactive is a first-aid defence from radioactive fallout, because it will make a healthy thyroid tissue less 'thirsty' for iodine and hence less likely to take up any

radioactive iodine. For this purpose, I would like the Lugol's or its tableted recipe, Iodoral because the elimination of excess is easier for the body, and it stays active in the system a bit longer.

Transdermally. Dr. Tullio Simoncini who is a former Italian physician says every tumour of the skin can be completely removed with Iodine Tincture 7%, brushed many times (10-20) once a day. When the crust is formed, don't take it away, but treat the area continuously and wait until it falls without any other intervention except the Iodine tincture. When the crust falls down the third time, the patient is healed. For epitheliomas, basalomas and melanomas, the treatment to choose is 7% iodine solution, as it is capable of precipitating the proteins of the body of the fungus and destroying them completely in a short time. If the lesions are fairly small, they must be painted with the solution 10-20-30 times twice a day for five days and then once for another ten days so that they become very dark. When the eschar is formed and it is higher than the epidermic plane, it is necessary to continue to paint under and above it, even if at first a strong pain is sensed. It is appropriate to highlight that the same type of therapy can be applied to psoriasis or to any known fungi afflictions.

Sources of IODINE include most sea foods, (ocean fish, but not fresh water fish, shellfish, especially oysters), iodized salt, unrefined sea salt, kelp and other seaweeds, fish broth, butter, pineapple, artichokes, asparagus, dark green vegetables and eggs. Eating fish won't give you iodine in mg amounts. To get 13.8 mg iodine, you would have to eat 10-20 lbs of fish per day.

What blocks the IODINE uptake?

Certain vegetables, such as cabbage and spinach, can block iodine absorption when eaten raw and are called goitrogens.

Foods and drugs that block thyroid function are turnips, cabbage, mustard, cassava root, soybeans, the skin of peanuts and millet. Another is bromide commonly found in baked goods such breads etc. Prescription drugs that are known to depress thyroid function include lithium bromide, tricyclic and monoamine oxidase inhibitors, anti-depressants, dopamine and adenosine. Environmental contaminants include dioxins and PCBs that can also inhibit thyroid function. But the more common is fluoride in drinking and bathing water as well as fluoride in toothpaste. Did you know that most antidepressants and antipsychotics out there are fluoride compounds? I mean, fluoride is coming at us from every single direction. Beta blockers, birth control pills, oestrogen mimickers, antidepressants are those you want to look at. If you're on any of those things, mostly, for sure, you're blocking your iodine uptake.

Where is the IODINE stored in the body?

- In total, the human body can hold 1,500 mg of iodine
- Your thyroid can hold a maximum of 50 mg of iodine
- 20 percent of the iodine in your body is held in your skin (if your skin is depleted of iodine, you will not be able to sweat)
- 32 percent of your body's iodine stores are in your muscles (if muscles are depleted, pain and other fibromyalgia symptoms can develop)

It proves Iodine is needed much more than just for the prevention of goitre!

How do I know I am IODINE deficient?

- Number one, you might start feeling little nodules on your thyroid. That might be the beginning signs of a goitre forming. Research work has shown that iodine deficiency in the thyroid presents as a thyroid goitre (enlargement of the thyroid). In those areas of the world where iodine deficiency is very high, such as in Switzerland and in certain areas of Asia and Africa, there are also higher incidents of thyroid cancer.
- Mental imbalances. If you have brain fog, if you're starting to feel depressed for no reason at all. All of a sudden, you go from being calm to having anxiety, panic attacks. Insomnia, if you're having problems sleeping at night. Depression.

- You have hypothyroidism or you've been diagnosed with hypothyroidism.
- Fatigue. Fatigue is one of the biggest things of iodine deficiency. Usually around 2 or 3 o'clock in the afternoon. Weakness. You might be starting to become weak.
- Dry skin. 20% of all iodine in the human body is stored in the skin, specifically in the sweat glands. Lack of iodine in the sweat glands manifests as dry skin with a decreased ability to sweat. Improve your **skin** complexion with nascent iodine in a glycerin-based solution
- Hair loss, if you're starting to see hair loss, could also be a sign of iodine deficiency.
- Fibrocystic breasts
- Iodine is concentrated in the ovaries, and Russian studies proved the greater the iodine deficiency, the more ovarian cysts a woman produces. In its extreme form, this condition is known as polycystic ovarian disease.
- Immune system problems. If you feel like you're getting sick a lot and you're not getting better.
- Slow metabolism, having a hard time losing weight. If you're just trying different things and you can't seem to lose weight, most likely, you might have an iodine deficiency.
- Cold hands, cold feet, low body temperature. If you're always cold, that's another sign. Puffiness around the eyes is another sign. A tongue, when your tongue feels like it's too big for your mouth and you have a problem talking, that's another sign of iodine deficiency.
- Iodine can also be concentrated in the gastric lining, and the lack of iodine in the stomach manifests as achlorhydria (lack of digestive acid production). Iodine is used by the stomach cells, also known as parietal cells, to concentrate chloride which is necessary to produce hydrochloric acid (digestive acid). With the prolonged presence of achlorhydria, there is a much higher incidence of stomach cancer.
- Iodine is concentrated in the lachrymal glands of the eye, and a lack of iodine can cause dry eyes. Iodine can also be concentrated in the parotid and submandibular glands of the mouth, and iodine deficiency here can result in a dry mouth.

Can IODINE be used while a woman is pregnant?

There is abundant scientific and medical literature demonstrating that hypothyroidism during pregnancy can result in miscarriage, abnormal foetal growth, perinatal morbidity, and neonatal death. Of particular note, it is essential to recognize that early brain development begins around the 15th week of gestation and it relies on our thyroxin supply, hence iodine status of the mother. Indeed maternal hypothyroidism and iodine insufficiency can produce foetal brain damage, cretinism, and a decreased intelligence quotient. Cretinism, a severe neuropathology caused by iodine deficiency, is marked by gross mental retardation along with varying degrees of shortness of stature, autism, and spasticity. It is well documented that iodine deficiency is the leading cause of mental retardation in the world.

Because of decreased iodine retention, preterm infants, in whom renal function is not fully developed, requires twice the daily intake of iodine for normal infants. To decrease these risks, the WHO in 2001 suggested an increased iodine intake for infants and an increased iodine content in infant formula. *World Health Organization and Food and Agriculture Organization Vitamin and Mineral Requirements in Human Nutrition, 2nd ed. 2004. Online document at:

http://whqlibdoc.who.int/publications/2004/9241546123_chap16.pdf Accessed April 1, 2007.

Lack of iodine in early pregnancy will lead to children with ADHD. The IQ of a child is set between age 2-3 years. Therefore, it is essential to keep giving nursing mothers iodine until the child is weaned! And mothers need two to three times the amount of iodine during pregnancy. And this is a huge problem. So, if you know somebody that's pregnant or even trying to get pregnant, I highly recommend that you put them on a good form of iodine, because it affects the fetal brain development and it affects emotional health and many other things.

Iodine is very crucial in the first three years of life from the development of the foetus inside the womb until two years after birth. In the development of a child's IQ, I feel that it would be very

advantageous for the mother to supplement her diet during pregnancy and, if she is nursing the child, for the first two years after pregnancy.

Why is IODINE so important ?

- It helps to raise the pH of the body, thus an alkalinizing agent. When we eat raw, good foods, then our bodies become alkaline. In an alkaline environment you're able to fight disease better.
- Necessary for the production of thyroid hormones
- Necessary for the production of all the hormones of the body (adrenals, ovaries, testicles, etc.)
- Responsible for the formation of the normal architecture of the glandular tissue, e.g. breast, thyroid, ovary, & prostate

What does it do?

The Nobel laureate Dr. Albert Szent Györgi (1893 – 1986), the physician who discovered vitamin C, wrote: 'When I was a medical student, iodine in the form of KI was the universal medicine. Nobody knew what it did, but it did something and did something good. We students used to sum up the situation in this little rhyme: If ye don't know where, what, and why prescribe ye then K (Potassium) and I (iodine).' Thus it is vital.

- Anti-cancerous
- Kills bacteria, parasites, fungi and viruses. Bleach is a well-known germ killer. But you cannot take bleach internally because it is too caustic and destructive. However, iodine can be taken internally without the biological destruction of bleach, but with the same sort of germicidal properties. This is why surgeons wash with iodine substances, and skin is cleansed with iodine preparations before surgery. It kills germ without damaging skin. Iodine has been known to be used by white blood cells (leukocytes) to kill bacteria for nearly 50 years. * Klebanoff SJ. Iodination of bacteria: a bactericidal mechanism. J Exp Med. 1967 Dec 1;126(6):1063-78. Available from: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=4964565 Leukocytes use their peroxidase enzyme, combined with hydrogen peroxide and iodine to kill bacteria. This is a normal function of iodine in the body. Iodine kills ALL single-celled organisms like viruses, bacteria, and fungi and these microorganisms do not develop resistance to iodine. Even at dilutions of 1/170,000 iodine is a bactericide and stops infection. Our immune system secretes iodine to kill pathogenic microorganisms as its first line of defence. * Donki JG, Chakradhar MV. Clinical study of efficacy of magnascent iodine (nascent iodine) as therapeutic and chemoprophylaxis agent in tropical malaria. International scientific exchange. Bangkok, Thailand; 2012. Available from: <http://www.magnascent.com/MalariaFindings.aspx>
- Iodine is good for food allergies - Iodine is necessary to make stomach acid along with zinc, and vitamin B1. If we don't have enough stomach acid, we don't break down proteins into its component amino acids and our body will attack those undigested proteins, creating an inflammatory situation. Iodine will help prevent food allergies
- Detoxifying agent
- Mucolytic agent Iodine clears out excess mucus. By keeping the mucus membranes healthy, iodine greatly helps to overcome autoimmune diseases

What does IODINE treat

- Thyroid Disorders (hypo, autoimmune, and cancer)
- Ovarian Cysts
- Fibrocystic Breast Disease
- Diabetes -Iodine is a co-factor for insulin, so it makes it function better.
- ADD/ADHD, Asthma, Atherosclerosis, Cancer, COPD, Excess Mucus Production, Haemorrhoids, Headaches, Hypertension,
- Infections, Keloids, Liver Diseases, Parotid Duct Stones, Sebaceous Cysts (Acne)
- One of the things I like using iodine for is the fact that it helps detoxify toxic metals. It makes water more soluble. It helps eliminate toxic metals like mercury, lead and then, of course, it also helps decalcify the pineal of fluoride and it also helps detoxify other metals and detoxify the

built-up fluoride and bromide from the thyroid gland. About 12.5 to 50 milligrams of iodine will increase the urinary excretion of lead and mercury. And usually, that happens even within 24 hours. But when you're pulling metals out of the body, you want to make sure that you're very hydrated. And even when you do take iodine, initially, you might even go through a healing crisis like a headache and fatigue. Slowly your body will eliminate all those toxins.

Why are people deficient in IODINE?

- Stigma of using salt. Hypertensive patients are encouraged to decrease their salt intake and less than 50% of the households use iodized salt.
- Chemical exposures or Goitrogens. They are the halogens or bromine, chlorine and fluoride. Goitrogens competitively inhibit iodine binding as well as decrease iodine uptake.
- Declining mineral levels
- Soil erosion, poor farming techniques, etc.
- Modern Diet
- Radioactive iodine use in medicine

The World Health Organization (WHO) has established that the mean urine iodine concentration should exceed 10 µg/dL, and should be less than 5 µg/dL in no more than 20% percent of a population. Sadly though the United States has demonstrated clearly that we are failing to meet the minimal standards of the WHO, as discovered by The National Health and Nutrition Examination Surveys (NHANES). It was determined via the NHANES I (1971–1974) and NHANES III (1988–1994), Americans' median urine iodine concentration decreased by 50%, while a low urine excretory level of iodine of less than 5 µg/dL increased 4.5 fold in this same period. Monitoring of high-risk groups showed that 6.7% of pregnant women and 14.9% of women of childbearing age had a urine excretory level of less than 5 µg/dL of iodine. Furthermore, it was demonstrated by the NHANES IV: 2001–2002 no improvement in iodine levels have occurred since NHANES III. The proportion of the U.S. population with moderate to severe iodine deficiency (<50 ug/L in urine) has increased over 600% in the last 30 years! * Blackburn GL. National Health and Nutrition Examination Survey: Where nutrition meets medicine for the benefit of health. Am J Clin Nutr 2003;78:197–198.

IODINE and your breast

Breast tissue is a huge sponge for iodine and it is concentrated in the breasts. Research done in 1993, recommends that women take 3 – 4 mg a day to promote healthy breasts. Dr. Guy Abraham, a former professor of obstetrics and gynaecology at UCLA Medical School, mounted The Iodine Research Project in 1997 after he read the Ghent paper on iodine for fibrocystic disease. * Can J Surg. 1993 Oct;36(5):453-60.

Dr. Ghent showed that iodine supplementation works quite well to reverse and resolve fibrocystic breast disease. Dr. Abraham engaged two physicians, Dr. Jorge Flechas and Dr. David Brownstein. They tested 4,000 people of which 95% were deficient in iodine according to their standards that is compared to the Japanese 13 mg daily dose of iodine.

Women with large breasts need more iodine than women with smaller breasts or than in the breasts of men. It has been proven that iodine deficiency can lead to fibrocystic breast disease and/or ovarian cysts. Iodine can similarly reduce uterine fibroids and one of the first conventional medical treatments for severe fibroids was to paint the uterus with iodine. So all reproductive disorders in addition to thyroid cancer or nodules on the thyroid are affected by iodine deficiency. They can be prostate cancer, breast cancer, uterine cancer, ovarian cancer, and testicular cancer.

Any iodine deficiency is going to cause a cystic disease somewhere. The iodine is absorbed by every cell in our body, but usually more in the reproductive organs. Fibrocystic breast disease (painful breasts with nodules and cysts and often more symptomatic prior to menstrual periods) is rife and 93% of American women have this condition, and the longer this disease exists, the higher the potential risk for development of breast cancer. The breasts take up a tremendous amount of iodine, including the uterus and all the glandular systems. Iodine is vital for our immune system because the

white blood cells need iodine to fight infection. So, Iodine is not only associated with the thyroid, but with every single cell in our body. We are all familiar with metabolism, and if it slows down, we are really going to have a hard time to lose weight, burning our fat.

Iodine deficiency induces the earliest form of malignant changes in the breast, namely dysplasia. It makes existing cancer more aggressive, increasing the size of breast tumours. Thus Iodine is not toxic to normal cells but it IS toxic to cancer cells! Daily intake of iodine/iodide at 50-100 mg would decrease the oxidative burden and DNA damage. Such an effect would be anti-carcinogenic in every organ of the human body.

We can learn from the average JAPAN woman who consumes up to 100 times more iodine per day than our Western counterpart, who promotes a meagre RDA of 0.138 mg per day.

- Japanese have lower rates of breast, endometrial and ovarian cancers
- Japanese have a significantly lower rate of fibrocystic breast disease
- Japanese women have longer menstrual cycles than Western women
- Japanese women have lower circulating oestrogen levels as compared to Western populations

IODINE and your ovaries

Polycystic Ovary Syndrome is mainly the malnourishment of Iodine causing the ovaries to become cystic, swollen and eventually unable to regulate the synthesis of their hormones leading to imbalances and infertility. The Russian discovered that the greater the iodine deficiency, the greater the number of cysts in the ovaries. Since 1928 it has been known that the ovaries have the second-highest concentration of iodine in a woman's body. Of course the highest concentration of Iodine is in the thyroid. When they're deficient, cysts form. So, basically, if there's no iodine in the thyroid; if it's saturated with fluoride, you're not taking iodine in through the body. Then, cysts form in the ovaries and especially around your menstrual cycles. If your breasts are cyclically tender, then it's a sign that you have iodine deficiency.

IODINE and FIBROMYALGIA

Fibromyalgia was first described by William Balfour, a surgeon at the University of Edinburgh, in 1816. It is of interest to note that health care practitioners in China have no recorded incidence of Fibromyalgia, nor does it appear in third world health clinics as predominantly as it does in Western nation.

Dr St Amand who is an endocrinologist describes the tender nodules in our muscles as the 'lumps and bumps of fibromyalgia'.

Is it possible that the lack of iodine in the muscle may cause fibromyalgia just as lack of iodine in the breast causes fibrocystic breast disease?

Fibromyalgia is far more common in middle-aged women (between the ages of 30 and 50 years) than in men.

Chronic fatigue syndrome is associated with the condition.

Fibromyalgia is caused by deficiencies of substances needed in ATP synthesis.

Until now the role of iodine in ATP synthesis and in normal functions of striated muscles is unknown.

Striated muscles contain 32% of the total body iodine in iodine sufficient individuals.

Many other conditions and diseases seem to be correlated with fibromyalgia and they are:

- Fibrocystic breast disease
- Hypothyroidism
- Hypoglycemia
- Adrenal failure
- Depression
- Irritable Bowel Syndrome
- Fungal infections
- Chronic Fatigue Syndrome

Many or perhaps all of these conditions are also 'correlated' with iodine deficiency!

Dr Flechas protocol for fibromyalgia

100 mg Iodoral (4 tablets twice a day)

Vitamin B2 and B3

Vitamin C 3000 mg

Magnesium (I prefer Epsom salt in my bath)

Selenium 200 mcg - Selenium is needed to convert T4 to T3. So, it's important that you supplement or get enough selenium in your food. Or if not, if you are taking an iodine supplement to supplement with selenium.

*I will add systemic enzymes like serrapeptase and PEMF

The IODINE project

Dr. Abraham collectively calls his work the 'Iodine Project'. The articles were originally published in the magazine 'The Original Internist' (<http://www.clintpublications.com/>), a non-peer reviewed journal circulating primarily to chiropractors.

The Iodine Project can be summarized as following:

Over 4,000 patients tested and 95.6% have tested low via urine or serum (blood) testing

- High dose iodine helps conditions such fibrocystic breast disease, therefore these doses are physiologically required.
- The Japanese consume much more iodine than Americans and have lower rates of thyroid disease and breast cancer.
- Iodine status can be determined by 24 hour urine iodine levels following a 50 mg oral dose. Those excreting a smaller fraction of the dose may have retained more iodine therefore their bodies needed it. You are expected to excrete 45 mg of the Iodine, and if less is excreted, then you are deficient in Iodine. Some severely deficient patients retained all the Iodine.
- Adult humans need 12,5 – 50 mg of iodine for good health.

Iodine overdose is not a real phenomenon and the 'Wolff-Chaikoff' effect is a delusional concept. The Wolff–Chaikoff effect lasts several days (around 10 days), after which it is followed by an 'escape phenomenon', which is described by resumption of normal organification of iodine and normal thyroid peroxidase function. 'The Wolff–Chaikoff effect can be used as a treatment principle against hyperthyroidism (especially thyroid storm) by infusion of a large amount of iodine to suppress the thyroid gland. Iodide was used to treat hyperthyroidism before antithyroid drugs such as propylthiouracil and methimazole were developed. Should signs of hyperthyroidism occur in patients who are taking thyroid hormone replacement therapy as well as taking iodine supplementation, the physician should first recommend an adjustment in the thyroid hormone therapy rather than in the iodine supplementation. This adjustment in therapy is recommended because iodine is required not only by the thyroid but is required for the proper functioning of many other tissues. The presence of pre-existing thyroid nodules or goitre does not preclude the patient from iodine supplementation therapy.

The current academic views on iodine are distorted by international foreign powers in order to make us more reliant on medication.

Bromides is a common endocrine disruptor. What makes it so dangerous is that it competes for the same receptors that are used to capture iodine. Because bromide is also a halogen, it competes for with the Iodine, especially when Iodine levels are low.

This will inhibit thyroid hormone production resulting in a low thyroid state.

Bromine readily unites with many elements and has a bleaching action; when spilled on the skin it produces painful sores. It presents a serious health hazard, and maximum safety precautions should be taken when handling it.

Bromine can be found in a number of places in your everyday world, including:

- Pesticides - Bromide-containing pesticides, like methyl bromide and ethylene dibromide, for soil fumigation in intensive horticulture and for postharvest treatment; a fumigant for termites and other pests. It could be sprayed on Strawberries.
- Plastics, like those used to make computers and car upholstery.
- Bakery goods and some flours often contain a 'dough conditioner' called potassium bromate
- Soft drinks in the form of brominated vegetable oils.
- Medications, such as Atrovent Inhaler, Atrovent Nasal Spray, Pro-Banthine (for ulcers), and anaesthetic medication.
- Fire retardants (common one is polybromo diphenyl ethers or PBDEs) used in fabrics, carpets, upholstery, and mattresses
- Bromine-based hot tub and swimming pool treatments

Aside from its effects on your endocrine glands, bromine is toxic. Bromide builds up in your central nervous system and results in many problems. It is a central nervous system depressant and can trigger a number of psychological symptoms, such as acute paranoia and other psychotic symptoms. In fact, in an audio interview, physician Jorge Flechas reported that, between 1920 and 1960, at least 20 percent of all hospital admissions for 'acute paranoid schizophrenia' were a result of ingesting bromine-containing products.

In addition to psychiatric problems, bromine toxicity can manifest as the following:

- Skin rashes and severe acne
- Loss of appetite and abdominal pain
- Fatigue
- Metallic taste
- Cardiac arrhythmias

The ban on bromines has not prevented them from sneaking into your foods and personal care products.

You probably are not aware of this, but nearly every time you eat bread in a restaurant or consume a hamburger or hotdog bun you are consuming bromide, as it is commonly used in flours.

The use of potassium bromate as an additive to commercial breads and baked goods has been a huge contributor to bromide overload in Western cultures. Luckily Potassium bromate has been banned in many countries including the United Kingdom in 1990 and Canada in 1994.

Potassium bromate is also found in some toothpastes and mouthwashes, where it's added as an antiseptic and astringent. It has been found to cause bleeding and inflammation of gum in people using these products.

Sodium bromate can also be found in personal care products, such as permanent waves, hair dyes, and textile dyes. Benzalkonium is used as a preservative in some cosmetics.

Finally, bromine and chlorine were the most common toxic elements reportedly found in automobiles according to the blog of David Brownstein, MD (March 2007). They showed up in the seats, armrests, door trim, shift knobs and other areas of the car.

4. MAGNESIUM

Magnesium has to be one of my all-time favourite minerals because it has beneficial effects all over the body. Think of it as your chill pill because it makes you relax from your head down to your toes. Magnesium is important for a good mood, first and foremost, but most people don't realize it's also necessary for stabilizing blood pressure. Without enough magnesium, your blood pressure rises. You need the mineral to keep your heart beating in perfect rhythm and to keep your pancreas functioning optimally.

Deficiencies of magnesium can lead to cardiac and blood sugar issues. Western societies are short on magnesium in part as a result of soil depletion and the processing of food. I believe this is one reason why we are seeing so much heart disease, depression, and diabetes. I feel that magnesium is so

important that without enough of it in your system, you will suffer more diseases in your lifetime and die sooner than if you had normal, healthy levels. Seriously, it's that important.

Magnesium deficiency can cause muscle weakness, tremor, and spasm. Your heart is a muscle. If you get a spasm or tremor in your heart, you're in trouble.

In fact, magnesium deficiency can cause arrhythmias such as atrial fibrillation, irregular contraction, and rapid heart rate. Some studies show that magnesium also benefits people with asthma by preventing bronchospasm. Magnesium is so protective of the brain that when you run low, you are more prone to migraines, insomnia, anxiety, phobias, brain fog, depression, and suicidal thoughts. A deficiency of this mighty mineral could result in more frequent headaches, migraines, fasciculation (twitching), muscle pain, fibromyalgia, poor nail growth, and asthma. And if that's not bad enough, you could also develop leg cramps, tenderness all over your body, a weak heart, high blood pressure, and thicker, stickier blood. Since magnesium is married to calcium and used to build bone, a magnesium deficiency could cause bone brittleness (osteoporosis), a condition more likely to occur in women. In fact, women have a particularly hard time of it when they run low on magnesium. In addition to osteoporosis, we see a lot more emotional instability and PMS symptoms such as tearfulness, cramps, mood swings, and irritability—even panic attacks.

Kids need magnesium for healthy brain function. Studies have shown that low magnesium can cause attention deficit problems. In fact, medical researchers have known about this effect for quite some time. One study done way back in 1997 found that 95 percent of kids with ADHD (attention-deficit/hyperactivity disorder) were deficient in magnesium. In 1987, another trial included 75 magnesium-deficient children with ADHD who were randomly assigned to receive either magnesium along with their standard treatment or just their standard treatment alone for 6 months. Those who received magnesium showed a significant improvement in personality and behaviour, while the control group exhibited worsening behaviour over the study period. This explains why many natural supplements for ADHD contain magnesium. The mineral helps relax the brain and allow more focus.

Magnesium is involved in over 300 enzymatic processes, including energy production. A deficiency has been linked to conditions many common ailments that inflict us.

Magnesium is particularly important when it comes to ensuring the health of the heart and bones. About 99% of the body's magnesium stores are found in the bones and tissues and heart tissue is particularly rich in this important mineral. About half of the body's magnesium stores can be found in bones, so it is clearly a very important mineral as far as osteoporosis prevention is concerned. Only 1% of the body's magnesium is actually present in the blood so a standard blood analysis is a very poor way of determining overall magnesium status.

Dr. Norman Shealy's, M.D., Ph.D. is an American neurosurgeon and a pioneer in pain medicine says, 'Every known illness is associated with a magnesium deficiency,' and that, magnesium is the most critical mineral required for electrical stability of every cell in the body. A magnesium deficiency may be responsible for more diseases than any other nutrient. When I worked in South Africa, there was a known Physician who refused to see patients if they did not finish a course of Magnesium tablets. He used to prescribe Slow Mag 4 tablets at night.

Magnesium Deficiency can trigger the following conditions:

Brain tissue

- Anxiety and Panic attacks - Magnesium (Mg) normally keeps adrenal stress hormones under control.
- Depression-Serotonin, which elevates moods, is dependent on Mg. A Mg-deficient brain is also more susceptible to allergens, foreign substances that can cause symptoms similar to mental illness.
- Insomnia- Sleep-regulating melatonin production is disturbed without sufficient Mg.

- Migraine - A few studies suggest that taking magnesium supplements may help prevent migraine headaches. In addition, a few clinical studies suggest that magnesium supplements may shorten the duration of a migraine and reduce the amount of medication needed. People who have migraine headaches tend to have lower levels of magnesium compared to those with tension headaches or no headaches at all.
- Nerve problems- Mg alleviates peripheral nerve disturbances throughout the whole body, such as migraines, muscle contractions, gastrointestinal spasms, and calf, foot and toe cramps. It is also used in treating central nervous symptoms of vertigo and confusion.

Respiratory

- Asthma - Several studies show that intravenous (IV) magnesium and magnesium inhaled through a nebulizer can help treat acute attacks of asthma in children 6 - 18 years of age, as well as adults. But there is no evidence that taking oral magnesium helps control asthma symptoms. Low levels of magnesium may increase risk of developing asthma. A population based clinical study of more than 2,500 children 11 - 19 years of age found that low dietary magnesium intake may be associated with risk of asthma. The same was found in a group of more than 2,600 adults 18 - 70 years of age.

Gastro intestinal

- Bowel disease - Mg deficiency slows down the bowel causing constipation, which could lead to toxicity and malabsorption of nutrients, as well as colitis.
- Liver Disease leading to liver failure - Mg deficiency commonly occurs during liver transplantation.

Cardio Vascular & Blood

- Blood clots - Mg has an important role to play in preventing blood clots and keeping the blood thin-much like aspirin but without the side effects.
- Heart - In one study of women, higher dietary intakes of magnesium were associated with a lower risk of sudden cardiac death. Magnesium helps maintain a normal heart rhythm and is sometimes given intravenously (IV) in the hospital to reduce the chance of atrial fibrillation and cardiac arrhythmia (irregular heartbeat). New research even finds that if you get enough magnesium you have a lower risk of dying from any cause. The study followed 4,203 people over ten years, and found that the rate of death from all causes was 10 times higher for people getting the least magnesium. And the rate of death from heart problems was more than 50% higher for those with low magnesium.
- Hypertension- With insufficient Mg, spasm of blood vessels and high cholesterol occur, both of which lead to blood pressure problems.

Endocrine

- Diabetes - Mg enhances insulin secretion, facilitating sugar metabolism. Without Mg insulin is not able to transfer glucose into cells. Glucose and insulin build up in the blood causing various types of tissue damage.
- Hypoglycemia - Mg keeps insulin under control; without Mg episodes of low blood sugar can result.

Bones and Musculoskeletal

- Musculoskeletal conditions - Fibrositis, fibromyalgia, muscle spasms, eye twitches, cramps and chronic neck and back pain may be caused by Mg deficiency and can be relieved with Mg supplements.
- Osteoporosis - Use of calcium with Vitamin D to enhance calcium absorption without a balancing amount of Mg causes further Mg deficiency, which triggers a cascade of events leading to bone loss.

Multiple

- Cystitis - Bladder spasms are worsened by Mg deficiency.
- Detoxification- Without sufficient magnesium the body struggles to make and utilize protein and enzymes. It is also unable to properly methylate and detoxify and/or process and utilize anti-

oxidants like vitamin C and E. It is crucial for the removal of toxic substances and heavy metals such as aluminium and lead.

- Fatigue- Mg-deficient patients commonly experience fatigue because dozens of enzyme systems are under-functioning. An early symptom of Mg deficiency is frequently fatigue.
- Kidney Disease - Mg deficiency contributes to atherosclerotic kidney failure. Mg deficiency creates abnormal lipid levels and worsening blood sugar control in kidney transplant patients.
- Obstetrics and Gynaecology- Mg prevents Premenstrual Syndrome; prevents dysmenorrhea (cramping pain during menses); is important in the treatment of infertility; and alleviates premature contractions, preeclampsia, and eclampsia in pregnancy. Intravenous Mg is given in obstetrical wards for pregnancy-induced hypertension and to lessen the risk of cerebral palsy and Sudden Infant Death Syndrome (SIDS). Mg should be a required supplement for pregnant mothers.
- Raynaud's Syndrome- Mg helps relax the spastic blood vessels that cause pain and numbness of the fingers.
- Tooth decay- Mg deficiency causes an unhealthy balance of phosphorus and calcium in saliva, which damages teeth. Material excerpted from Dean, Carolyn. *The Miracle of Magnesium* (2003 Ballantine Books: New York, NY), 2003. pp. 5-7.

Why Are We Magnesium Deficient?

There are several reasons why we are so deficient in magnesium these days. Our soil is depleted of nutrients, we eat a diet high in processed foods with very little nutritional value, we live stressful lives (stress burns up magnesium), we starve ourselves on restricted diets and we don't eat enough foods rich in magnesium. We also consume foods that drain magnesium from our bodies. Alcohol for example, lowers magnesium availability to our cells. Drinking fluoridated water and beverages are also harmful because fluoride binds to magnesium in the body.

Six Ways To Get More Magnesium into your body

- Foods - Consume foods rich in magnesium like kelp, halibut, mackerel, cocoa, wheat germ, leafy greens, nuts and seeds. It can be difficult to eat enough of these foods to ensure you are getting adequate amounts of magnesium.
- Supplements - also help you consume more magnesium. Some supplements can have a laxative side effect. If you are sensitive to magnesium supplements it is best to take magnesium transdermally. Eating foods rich in magnesium will help increase your daily intake of magnesium. It is also wise to apply magnesium transdermally (through the skin) as it is one of the easiest ways our bodies absorb magnesium. Toss The Processed Salt. Salt itself isn't bad. We naturally crave salty foods. In fact, when your blood is at its healthiest, it's slightly salty. Unfortunately, the salt you find in most foods today isn't even close to what Mother Nature intended. It's bleached and refined. When they're done making it into the white stuff that goes into packaged foods and your salt shaker it's like franken-salt, with residual chemicals from the processing. Try to avoid the foods that have the most processed salt. Bottled salad dressing, cured meats (beef jerky, salami), processed cheese, salt-covered snack foods and pickled foods (like olives and dill pickles). Instead, look for sea salt. It's unrefined, and has all the minerals and co-factors nature meant salt to have, like potassium and magnesium. Magnesium used to be in your drinking water but water with high mineral content – hard water – fell out of favour because most people don't like the taste.
- Magnesium oil - can be rubbed or sprayed on your skin. Some people find that it leaves their skin feeling a little itchy and dry. If you don't like the feeling of the magnesium oil you can spray it on your skin and leave it on for 30 minutes. After 30 minutes you can shower off the oil. I personally love using magnesium oil on my skin and have not had any issue with itching or drying skin.

- Magnesium Lotion or Body Butter - Another option is magnesium lotion or body butter. Many people prefer magnesium lotion over magnesium oil. Apply magnesium lotion daily or as needed. It's easy to make your own magnesium body butter and lotions at home.
- Swim in the ocean - Ocean water is rich in magnesium. If you live near a beach, take a swim in the ocean and absorb the magnesium.
- Epsom Salt Baths - Take an Epsom salt bath or magnesium flake bath 2-3 times a week or daily if you can. I suggest 2 cups of Epsom salts for baths and 1 cup of Epsom salts in foot baths. Make sure to use a chlorine bath ball to filter chlorine from your bath. If you don't have a chlorine filter you can add bentonite clay into your bath water. The bentonite clay will help to absorb a lot of the chlorine in the water.

5. **BORON or Borax**

Yes Boron is a forbidden for a great reason. BORON is a mineral and a vital activator, causing many other functions to happen within our body. Boron deficiency causes the cell walls to become very weak and fragile, not properly transferring the essential nutrients. Boron blends with all the other minerals to sustain cell growth and health!

Boron is one of the main minerals used in the bone building process.

Boron, vitamin D and oestrogen improves the absorption of calcium. Boron also helps with the metabolism within the bone. If it functions properly, osteoporosis is not a major factor to a person's health. Once osteoporosis sets in, Boron can play a major role in helping the body to replace lost calcium.

- Boron also assists in preventing arthritis and tooth decay.
- Boron is one of the minerals necessary for building and repairing joint cartilage.
- Boron is essential in maintaining the correct levels of calcium, magnesium and phosphorus in the body.
- Boron helps to regulate hormones, especially oestrogen and testosterone.
- Boron also helps maintain brain function and memory capabilities.
- Boron deficiency can cause cell walls to become very weak and fragile, rendering the cells incapable of properly transferring nutrients into them. ...Boron is a very important part of a long chain that intertwines all the minerals necessary for individual cell growth and health!
- Boron is essential for ALL life in plants as well as animals. Boron is essential for the integrity and function of cell walls and the way signals are transmitted across cellular membranes.

Once Boron is ingested it reacts with hydrochloric acid in the stomach to form Boric acid, ingested Boron compounds are rapidly and nearly completely excreted with the urine.

Chemical fertilizers inhibit the uptake of Boron from the soil. An organic apple grown in rich soil may have 20 mg Boron, but if grown with fertilizer it may have only 1 mg of Boron. The average intake of Boron in developed countries is only 1-2 mg of Boron per day.

BORON DEFICIENCY SYMPTOMS

Boron is a crucial mineral with the highest concentration in the parathyroid glands, the bones, joints and the dental enamel. It is essential for healthy bone and joint function, it is responsible for regulating the absorption and metabolism of calcium, magnesium and phosphorus.

Some symptoms of Boron deficiency are arthritis, brittle bones, carpal tunnel syndrome, degenerative joint disease, hormonal imbalance, loss of libido, memory loss, muscle pain, osteoporosis, receding gum, and weak joint cartilage.

Boron deficiency causes greatly increased amounts of calcium and magnesium to be lost with the urine.

Boron deficiency causes the parathyroid to become overactive and stressed which causes the glands to release too much parathyroid hormone. Excess parathyroid hormones raise the blood level of calcium by releasing calcium from the bones, joints and teeth into the blood stream. This then leads to osteoarthritis and other forms of arthritis, such as rheumatoid arthritis, juvenile arthritis, spondylitis, gout, lupus, osteoporosis, pyorrhoea and tooth decay.

With advancing age high blood levels of calcium lead to calcification of soft tissues causing muscle contractions and stiffness; calcification of the eyes, endocrine glands, especially the pineal gland and the ovaries. Arteriosclerosis, kidney stones, and calcification of the kidneys ultimately leading to kidney failure. When the intracellular calcium levels get too high the cells will die!

Bone analysis has shown that arthritic joints and nearby bones have only half the Boron content of healthy joints. Equally, synovial fluid that lubricates joints and provides nutrients to the cartilage is Boron deficient in arthritic joints.

A world void of Arthritis and Osteoporosis, will collapse our current

HEALTH EFFECTS OF BORON

- A Boron supplement will reduce the daily loss of calcium by nearly 50%. As this calcium is withdrawn mainly from your bones and teeth, Boron deficiency may be the most important factor in causing arthritis, osteoporosis and tooth decay today.

- Boron affects the metabolism of steroid hormones, and especially the sex hormones.

Supplementing with Boron increases low testosterone levels in men and oestrogen levels in menopausal women. Boron also has an important role in converting vitamin D to its active form, thus increasing the calcium uptake and deposition into the bones and teeth rather than causing soft tissue to calcify. Also other beneficial effects have been reported such as improvement of heart disease, vision, psoriasis, balance, memory and cognition.

- A German cancer researcher by the name of Dr. Paul-Gerhard Seeger has shown that cancer commonly starts with the deterioration of cell membranes. Since Boron is essential for cell membranes and Boron deficiency is widespread, this may be an important cause for the initiation of tumour growth. Boron compounds have anti-tumour properties and are 'potent anti-osteoporotic, anti-inflammatory, hypolipaemic, anti-coagulant and anti-neoplastic agents.'¹

RESEARCH ON BORON

In the 1960's a soil and plant scientist by the name of Rex Newnham, Ph.D., D.O., N.D, developed arthritis. He tried conventional drugs but they did not help so he looked for answers studying the chemistry of plants. He realized that plants in the area in which he lived were mineral deficient. Knowing that Boron aids calcium metabolism in plants he decided to try supplementing with Borax. You may find it unimaginable that Borax, the humble insecticide and laundry detergent seems to be the missing link! Dr. Newnham took 30 mg of Borax per day and in three weeks ALL pain, swelling and stiffness had disappeared! Borax is chemically the same as Boron, mined mostly from dried salt lakes. There is no 'food-grade' Borax available or necessary as all Borax is the same and 'natural', it is usually mined in California or Turkey. Borax has antiseptic, antifungal, and antiviral properties but only mild antibacterial action. When you send a urine sample to the laboratory, then you will find it is dissolved with Byron. It is an antiseptic, must not an antibiotic.

Ingredients: A NATURAL MINERAL.

Most of Dr. Rex Newnham's later research was devoted to the relationship between soil Boron levels and arthritis. He published several scientific papers on Borax and arthritis. One was a double-blind trial in the mid 1980's at the Royal Melbourne Hospital which showed that 70% of those who completed the trial were greatly improved. There were no negative side-effects reported, some participants reported that their heart ailments had also improved, and there was better general health and more energy.² His great mistake was to tell the public.

He told public health and medical school authorities about his discovery but they were more concerned about loss of their own profits and ended up instigating a government law that Boron be declared a poison in any concentration. This resulted in Dr. Newnham being fined and threatened and Borax becoming unavailable in the country in which he lived. Before the national ban, many people with arthritis who heard of Dr. Newnham's discovery were delighted as they began supplementing with Borax and saw vast improvement. Others were afraid to take something that was being sold to kill cockroaches and ants.

SOIL BORON LEVELS

Dr. Rex Newnham's research found that the traditional sugarcane islands, due to long-term heavy use of fertilizers, have very low soil Boron levels. Jamaica has the lowest level of soil Boron and the arthritis rates of the population are 70%, he noted that even most of their dogs were limping. The Mauritius islands off the southeast coast of Africa have very low Boron levels and 50% of the populations suffers with arthritis. The daily Boron intake in these countries is less than 1 mg/day. An interesting comparison is between India and the native Fijians. The Indians are estimated to have an arthritis rate of 40% and eat much rice grown with fertilizer while the native Fijians with an estimated arthritis rate of 10% and eat mainly starchy root vegetables grown without fertilizer. The US, England, Australia and New Zealand generally have average soil-Boron levels with an estimated intake of 1 to 2 mg of Boron and arthritis rates of approximately 20%.

Israel has some of the best soil in the world and a very high Boron content, with an estimated daily Boron intake of 5 to 8 mg. An independent survey in 1978-1980 at Kaplan Hospital showed arthritis for the whole country to be less than 1%.

Carnarvon in Western Australia has high Boron levels both in the soil and water, and the arthritis rate is only 1%.

It is similar to a place named Ngawha Springs in New Zealand which has very high Boron levels in the spa water and is acclaimed as a curative for arthritis. A hotel in Ngawha has a collection of wheelchairs and crutches that were left behind by people who no longer needed them when they left to go home after their stay there. Incidentally ALL SPAS reputedly curing arthritis have very high Borax levels.

You may have read about green lipped mussel extract from New Zealand that is claimed to relieve arthritis pain and other symptoms. These mussels were gathered from a volcanic island with vents under the sea. The NZ mussels have absorbed Boron from the sea; that is the secret to their healing properties. Mussels gathered from other areas do not have the same effect because they lack Boron. After boron supplementation bones were much harder than normal. With additional boron bone fractures heal in about half the normal time in both man and animal. Horses and dogs with broken legs, or even a broken pelvis, have fully recovered.

SUPPLEMENTING WITH BORAX

Dr. Newnham's research proved that after Borax supplementation an individual's bones were much harder and stronger. With additional Boron, bone fractures healed in half the normal time in both man and animal. Horses and dogs with broken legs, and even a broken pelvis, fully recovered. A young girl, aged 9 months, with juvenile arthritis was supplemented with Boron and she was essentially 'cured' by Dr. Newnham in 2 weeks.

Rex Newnham's research indicates that generally people are healed from their arthritis pain, swelling and stiffness in approximately 1 to 3 months.

He also stated that many patients with arthritis commonly experienced a Herxheimer reaction, which is an early aggravation of symptoms with increased pain for a short period of time (you may feel worse before you feel better). It is commonly due to toxins being released by killed Candida and mycoplasma. This is very common with antimicrobial therapy, and borax definitely is an exceptionally good and strong fungicide. Dr. Newnham regarded Herxheimer as a good prognostic sign indicating that the body was healing.

It has been estimated that 55% of Americans over the age of 50 have osteoporosis and of these approximately 80% are women. Worldwide 1 in 3 women and 1 in 12 men over the age of 50 have osteoporosis, and this is responsible for millions of fractures each year. In scientific studies Rats with osteoporosis were given a Boron supplement for 30 days with the result that their bone quality was then comparable with that of the healthy control group and of a group supplemented with estradiol.³ The beneficial effect of Boron on bones seems to be due to two interrelated effects: a higher Boron content of the bones which makes them harder, and a normalization of sex hormones which stimulates the growth of new bone. Low oestrogen levels after menopause are thought to be the main reason why so many older women develop osteoporosis. In men testosterone levels decline more gradually which seems to be reflected in their later onset of osteoporosis as a group. Research has now shown that Boron supplementation in postmenopausal women doubles the blood level of the most active form of oestrogen, 17-beta estradiol, to the level found in much younger women. Equally, the blood levels of testosterone more than doubled.⁴ Boron appears to BALANCE the levels of sex hormones. With Conventional Synthetic Hormone Replacement Therapy there is a higher risk of breast or endometrial cancer which is NOT known to happen with hormones produced by the body as with Boron supplementation or with Bio-Identical Hormone Replacement Therapy. Breast cancer is related to calcifications in the breast. Tests have shown that it is important to normalize the calcium-magnesium metabolism and cellular membrane functions within the body in order to reduce the risks of breast cancer.

A recent study in younger men (29 – 50 years) showed that the level of free testosterone had risen by 33% after a daily supplementation borax for one week.⁵ This may be of special interest for bodybuilders. Research with Boron has shown that elevated testosterone levels are beneficial by shrinking prostate tumours and PSA levels, PSA being a marker for both tumours and inflammation in the prostate gland.

Significantly improved memory and cognition in both sexes of elderly individuals may be partly due to increased levels of sex hormones and to improved membrane functions of the brain cells.⁶

CANDIDA AND FLUORIDE

Being such an excellent fungicide it is not surprising that Borax is being successfully used to treat Candida overgrowth. In normal healthy conditions Candida exists as harmless oval yeast cells. When challenged, chains of elongated cells called pseudohyphae develop, and finally strongly invasive long, narrow and tube-like filaments called hyphae. These damage the intestinal wall, and cause inflammation and Leaky Gut Syndrome. Pseudohyphae and hyphae can be seen in the blood of individuals with cancer and autoimmune diseases. Candida can also form tough layers of biofilm. This same study shows that Borax inhibits the formation of biofilms and also the transformation of harmless yeast cells into invasive hyphal form. Other articles have shown that this process, commonly initiated by antibiotics, is a basic cause of most of our modern diseases, and this makes Borax and Boron primary health remedies. Boron is also used to remove accumulated fluoride and heavy metals from the body.⁷

Fluoride not only causes bones and joints to deteriorate, but also the pineal gland to calcify and the thyroid gland to become underactive. Borax reacts with fluoride ions to form Boron fluorides which are then excreted in the urine. While in good health and especially in younger years a calcium – magnesium ratio of 2:1 is normal and beneficial. But with increasing age, Boron deficiency and resulting disease conditions we REQUIRE progressively less calcium but more magnesium.

Boron is an important regulator of cell membrane functions, especially in regard to movements of calcium and magnesium. In Boron deficiency an excessive amount of calcium moves into the cell while magnesium is unable to move inside to displace the calcium. This is the condition of old age; and all of the symptoms of boron-deficiency diseases leading up to it.

For Boron to be fully effective in reversing tissue calcification ample magnesium is required. Sources strongly doubt whether calcium supplements are needed or even beneficial, even in case of osteoporosis. Tests show that most individuals have plenty of calcium (stored in their soft tissues

where it does not belong), and supplementing Boron and Magnesium redeposit this misplaced calcium directly into bones. Note - Research has shown that the medical focus on high calcium supplemental intake accelerates aging, making us a walking coral reef.'

Long-standing severe calcification build-up cannot be redistributed in a short time while on Boron supplementation. Increased calcium levels affect your hips and shoulders like a frozen shoulder. Tendency to severe cramping and pain, problems with the blood circulation, or nerve transmission. High calcium levels is a medical emergency causing severe abdominal pain and your kidneys will suffer. There will be a healing crisis when we do take Boron, but they can be minimized by increasing boron levels gradually. Whenever you experience an unpleasant effect reduce or temporarily stop boron intake until the problem subsides. Greatly increased your fluid intake to flush your kidneys.

DOSAGE AND SIGNS OF OVERDOSE

Signs of taking too much Borax are not being hungry, nausea, vomiting, lethargy, dermatitis and diarrhoea. If you stop taking it for a day or so all of these symptoms will go away. The antidote for Boron toxicity is to consume extra B2.

- We can supplement Boron with an Ionic liquid mineral, very similar in structure to Colloidal Silver. Dosage 1 tablespoon twice a day, equalling 3 mg. of Boron per day. Many people taking this, experience no gastrointestinal issues. It is 98% absorbable, and 7000 times smaller than red blood cells. Ionic Boron does not build up in the body, and it never reaches toxic levels. Therefore feel free to find the amount that works best for you.

- Dosing with pure Borax, which is also an Ionic form of Boron when taken into the body: Dissolve a teaspoonful (5-6 grams) of Borax in 1 litre of filtered water. Pour a small amount of boiling water in the litre jar first and stir to dissolve; then fill the jar with cold, filtered water. That is your concentrated solution, keep it out of reach of small children. The standard dose is 5 ml of concentrate. It has 25 to 30 mg of Borax and provides approximately 3 mg of Boron. Borax contains about 11% boron by weight. If you have no specific health problems or for maintenance you may consume with 1 or 2 teaspoons daily. If you have a health problem increase the intake to 5 to 15 ml per day space-out for several months or longer until you feel that your problem has sufficiently improved.

- I put 1 tablespoon of Borax in my bath once a week. Ngawha Springs in New Zealand, has a very high Boron levels in the spa water and is acclaimed as a curative for arthritis.

MSM like Wikipedia dislikes Boron for an unknown reason. They demonize Borax for unproven toxicity. Simple table salt is many times more dangerous than Borax! Do you ever notice a caution statement on a box of Table Salt? Borax is a clean and natural product and is not harmful when taken in small quantities. Remember that there is no 'food-grade' Borax available or necessary because all Borax is the same and 'natural'. Never buy the 'new Borax substitute.' It is spoiled by added perfumes and anti-caking compounds.

- One large gelatine capsule filled with borax or boric acid was inserted intra-vaginally at bedtime for several nights for up to 2 weeks. ¹² It worked even in cases of drug-resistant Candida and against all the tested pathogenic bacteria. Borax, due to its alkalinity, was more effective than boric acid. A scientific review in 2011 concluded: 'Boric acid is a safe, alternative, economic option for women with recurrent and chronic symptoms of vaginitis when conventional treatment fails.' ¹³ I believe it is so much better than drugs and why not use it as a first option. Another study from Turkey ¹⁴ shows the protective effect of boric acid on food contaminated with mycotoxins, especially fungal aflatoxins.

- Food preservative due to the strong antifungal action of boric acid

- In a Chinese study borax was used to treat 31 patients with skeletal fluorosis. The amount was gradually increased from 300 to 1100 mg/day during a three month period, with one week off each month. The treatment was effective with 50 to 80% improvement.

How to use Borax externally

Saturate water with borax crystals (i.e. keep adding them to water until no more dissolve). Apply the borax solution to the problem areas on the skin, and surrounding hair.

Some people have found this borax remedy is more effective by adding 1% hydrogen peroxide to the above solution.

Apply the solution to the skin, and leave it on without rinsing. It tends to cause drying, so you may want to add aloe vera, jojoba oil or lavender oil later.

Daily uses

- **Cleaner** - Mixing just 2 tablespoons of Borax with 2 cups of hot water makes a wonderful all-purpose cleaner. Just mix the solution together in a spray bottle and use it to clean kitchens and bathrooms or just anywhere you need a little extra boost for your cleaning. This is a very inexpensive cleaner, when compared to other all-purpose cleaners on the market, and the Borax is great for getting really stubborn stains off. You can use it to remove crayon and pencil marks from your walls – test a spot first to make sure that the paint doesn't come off. It makes a great degreaser for stoves and countertops and your bathtub will really sparkle when you clean it with Borax
- **Toilet Bowl Cleaner** - Pour 1 cup of borax into the toilet bowl at night before you go to sleep. The next morning clean out the toilet bowl with a brush. The borax will loosen all the grime build-up.
- **Pests** - Borax is toxic to insects, parasites, protozoa and bacteria. It is effective against moulds and fungi, internally and externally.^{18,19} Borax is very effective at keeping cockroaches, ants, water bugs and a few other household pests at bay. You just have to mix equal parts of borax with regular sugar. The sugar helps to draw the bugs in and the borax takes them away – permanently. Take care that you do not leave this out where pets or small children can reach it. Keep the bug treatment somewhere that pets cannot reach. Good places are under stoves, refrigerators or sinks. These are areas that are normally infested the most anyway so they are good places to begin treating your home for pests. I find mixing a little honey with borax will solve your ant problem. Borax also works well on mice. You just have to sprinkle it in areas where you think mice may be hiding and it will work wonders to get rid of those bothersome pests. You can also sprinkle it on carpet and vacuum to remove fleas or sprinkle on your mattress to rid your bed of bed bugs.
- **Preserving Flowers** - Borax will naturally remove moisture from flowers and leaves which will help them to prevent wilting. You can mix one part dry white sand with two parts Borax or mix one part Borax with two parts corn meal. Either method works well. You will need to cut your flowers and place them in a box that contains the mixture you prefer. Make sure that the entire flower is sprinkled with the mixture and then simply seal the box with tape and leave it sealed for at least seven days. Your flowers will dry out and you can then do whatever you want with them. Remember to strain out any moisture from your mixture and keep it for later use. Note that cut flowers from florists normally have a special water solution to preserve them and this method may not work on them.
- **Floor Cleaner** - 1 teaspoon of dish detergent mixed with 1/3 cup of Borax, 1 tablespoon of ammonia and a gallon of hot water makes a wonderful floor cleaner. The Borax will help to get stubborn stains from the floor and you can use it on tile, linoleum or hardwood flooring. Scuff marks from the kids' shoes will come up easily due to the scrubbing power of Borax. Note that if you are not really a fan of ammonia, you can use lemon juice instead if you want. It gives a much better aroma and still helps you to get your floors sparkling clean. Just spray on your floors or add to your mop bucket and mop away. The mixture of cleaners along with the cleaning power of Borax will remove virtually any stain from your floors, even if they've been there for a while.
- **Remove Rust** - Mixing 1 cup of Borax with 2 cups of warm water and 1 tablespoon of lemon juice works wonders on rust. If you have old pots and pans that are rusted, you can add this solution, which should be like a paste, and let them sit for about 15 minutes. Rinse and then just scrub the rust away. This works well on things other than dishes, too. You can use it to

remove rust from appliances and virtually anything metal. Imagine the work that you can do to old patio furniture. Just remove the rust and paint. If you find that the rust is a bit stubborn, leave a second coating on to sit for another 15 to 20 minutes and it should lift right off with a scrubbing sponge.

Linens - Just like it was intended, Borax is still a great laundry booster. Just add about ½ cup to your laundry to see clothes that are cleaner and stain-free. It leaves clothes smelling better with no fake scent. Borax offers a natural scent, sort of like drying your clothes outside. If you have really stubborn laundry stains like coffee, grass or even something that you can't identify, you can use Borax as a pre-treatment for stains. Just mix ½ cup of borax with a cup of warm water and allow the clothing to soak for about half an hour before laundering. Borax will help soften your hard water and is really effective at removing hard water stains from clothing and from your washing machine. It is safe for fabrics and can even be used to wash the most fragile delicates in your dresser

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6. VITAMIN D3 AND YOUR BONES

CALCIUM needs MAGNESIUM, VITAMIN D3 and BORON to function properly

Adequate levels of magnesium are essential for the absorption and metabolism of calcium and vitamin D. Magnesium converts vitamin D into its active form so that it can aid calcium absorption. Magnesium also stimulates the hormone calcitonin, which helps to preserve bone structure and draws calcium out of the blood and soft tissues back into the bones, lowering the likelihood of osteoporosis, some forms of arthritis, heart attack and kidney stones.

Robert Thompson, M.D. wrote a book on this subject called 'The Calcium Lie,' which explains that bone is comprised of at least a dozen minerals, and the exclusive focus on calcium supplementation is likely to worsen bone density and actually increase your risk for osteoporosis. Overconsumption of calcium creates other mineral deficiencies and imbalances that will increase your risk of heart disease, kidney stones, gallstones, osteoarthritis, hypothyroidism, obesity and type 2 diabetes—and the latest study certainly lends credibility to his theory.

So, if your calcium supplement is being turned into 'little rocks' that are being deposited in your soft tissues and arteries, you can begin to understand how this could be increasing your risk for a heart attack or stroke.

This is particularly important for postmenopausal women, because hormone balance is necessary for proper calcium signalling—directing your body to deposit calcium into your bones. When hormones

fall out of balance, this signalling causes calcium to slowly exit your bones and become deposited in your arteries instead.

This is why your risk for heart disease can jump substantially with the onset of menopause—some say by as much as 360 percent.

There is simply no good evidence that calcium supplementation is achieving its goal of reducing fractures, but there is abundant evidence it's wreaking havoc on people's health. The calcium must be in a bioavailable form, and must be balanced out with vitamins D and K and important trace minerals, and part of a total nutritional plan.

It's more likely your body can use calcium correctly if it's plant-derived calcium. Good sources include raw milk from pasture-raised cows (who eat the plants), leafy green vegetables. It's worth mentioning that the studies done about calcium from dairy products are all done with pasteurized dairy, rather than raw dairy products that have more of their nutrients intact, and this muddies the results of these studies.

You also need sources of silica and magnesium, which some researchers say is actually enzymatically transmuted by your body into the kind of calcium your bones can use. This theory was first put forth by French scientist Louis Kevran, a Nobel Prize nominee who spent years studying how silica and calcium are related.

Good sources of silica are cucumbers, bell peppers, tomatoes, and a number of herbs including horsetail, nettles, oat straw, alfalfa, and raw cacao, which is also extremely rich in highly bioavailable magnesium.

Dr. Thompson recommends the use of natural unprocessed salt as a far better alternative to calcium supplements because it provides the trace minerals you simply cannot get from food grown in today's mineral-depleted soils.

More approaches to ensure strong bones

- Optimize your vitamin D either from natural sunlight or an oral supplement. Check your blood levels regularly.
- Vitamin K2 prevents coronary calcification and is required to bind calcium into the matrix of your bone, and without it, vitamin D may actually encourage heart disease. Nearly everyone has been found to be deficient in Vitamin K2. Vitamin K2 has been shown to extend your lifespan (Rotterdam Study) and reduce your risk for heart attack (Prospect Study). Optimize your vitamin K through a combination of dietary sources (leafy green vegetables, fermented foods like natto, raw milk cheeses, etc.) and a K2 supplement, if needed.
- Consume a variety of fresh, local organic whole foods, including vegetables, fruits, nuts, seeds, organic meats and eggs, and raw organic unpasteurized dairy. The more foods you consume raw, the better nourished you will be. Minimize sugar and refined grains. Avoid low fat diets, which are known to impair calcium absorption.
- Consider a high-quality omega-3 fatty acid supplement
- Make sure you do weight-bearing exercise, which has profound benefits to both your skeletal and cardiovascular systems. My favorite is the Peak Fitness system.
- Handle the stress in our life since it has a significant impact on your physical and mental well-being.

Remember there are 14 classes of **drugs groups** that exhaust your magnesium reservoir.

- Acid Blockers
- Antacids
- Antibiotics (a few examples)
- Antiviral Agents
- Blood Pressure Drugs
- Central Nervous System (CNS) Stimulants
- Cholesterol Agents

- Corticosteroids
- Hormone Replacement Therapy / Oral Contraceptives
- Immunosuppressants
- Nonsteroidal Aromatase Inhibitors for breast cancer
- Osteoporosis
- SERMs (Selective Estrogen Receptor Modulators—used for breast cancer)
- Sulfonamides
- Miscellaneous. Alcohol, High-sugar diet, (glucose, fructose, sucrose) Malabsorption of any sort, Mineral oil

VITAMIN D

Much research has been done on vitamin D levels and their impact on health; optimal levels have been correlated with a reduced risk of developing numerous conditions.

- Vitamin D increases intestinal absorption of calcium from 10-15 percent to 30-40 percent, and phosphorus from 50-60 percent to 80 percent.
- Twenty-two studies suggest women with higher vitamin levels will have a lower risk of developing cancer (especially reproductive cancers).
- Depression and vitamin D are linked due to the numerous vitamin D receptors located on the brain and theories that vitamin D increases the activity of serotonin.
- Low vitamin D levels increase the risk for pre-eclampsia by 3-4 times and can increase the risk of a C-section by 300%.

*VitaminDCouncil.org.

Vitamin D, the sunshine vitamin, has received a lot of attention recently. The major function of vitamin D in vertebrates is maintenance of calcium homeostasis, but vitamin D insufficiency has also been linked to an increased risk of hypertension, autoimmune diseases, diabetes, and cancer. Therefore, there is a growing awareness about vitamin D as a requirement for optimal health. Vitamin D₃ is synthesized in the skin by a photochemical conversion of provitamin D₃, but the necessary rays are only emitted all year round in places that lie below a 35° latitude. Unfortunately, very few food sources naturally contain vitamin D and the general population as a result fails to meet the requirements. Fish have the highest natural content of vitamin D expected to derive from an accumulation in the food chain originating from microalgae.

Vitamin D deficiency is now recognized as a global pandemic. The major cause for vitamin D deficiency is the lack of appreciation that sun exposure has been and continues to be the major source of vitamin D for children and adults of all ages.

Vitamin D plays a crucial role in the development and maintenance of a healthy skeleton throughout life.

Many people mistakenly believe they aren't at risk because they consume vitamin-D-fortified foods (such as milk). Not only are these fortified foods inflammatory, processed, chemical filled and destructive to the body, but they actually contain very little vitamin D. For example, the vitamin D in one cup of milk (whole, reduced fat or vitamin D fortified) is 125 IU. Fortified breakfast cereal (2 cups) contains 500 IU. Even a natural food known for having vitamin D, such as salmon, contains only 500 IU per 3-ounce portion. One of the best natural sources of vitamin D is cod liver oil, with 1,400 IU in 1 tablespoon. There are very few foods that actually have therapeutic levels of vitamin D naturally to support your health needs.

Despite its name, vitamin D is not a regular vitamin. It's actually a steroid hormone that you are designed to obtain primarily through sun exposure, not via your diet.

Just How Widespread Is Vitamin D Deficiency?

Before the year 2000, very few doctors ever considered the possibility that you might be vitamin D deficient. But as the technology to measure vitamin D became inexpensive and widely available, more and more studies were done, and it became increasingly clear that vitamin D deficiency was absolutely rampant.

The National Health and Nutrition Examination Survey found that 50 percent of children aged 1 to 5 years, and 70 percent of children between the ages of 6 and 11, are deficient or insufficient in vitamin D

Researchers such as Dr. Holick estimate that 50 percent of the general population is at risk of vitamin D deficiency and insufficiency

Researchers have also noted that vitamin D deficiency is prevalent in adults of all ages who always wear sun protection (which blocks vitamin D production) or limit their outdoor activities. It's estimated that over 95 percent of US senior citizens may be deficient in vitamin D, not only because they tend to spend a lot of time indoors but also because they produce less in response to sun exposure (a person over the age of 70 produces about 30 percent less vitamin D than a younger person with the same sun exposure).

Signs You May Be Vitamin D Deficient

The only way to know for sure if you're vitamin D deficient is via blood testing. However, there are some signs and symptoms to be aware of as well. If any of the following apply to you, you should get your vitamin D levels tested sooner rather than later. It is more common in:

- Darker skin people. African Americans are at greater risk of vitamin D deficiency, because if you have dark skin, you may need as much as 10 times more sun exposure to produce the same amount of vitamin D as a person with pale skin! As Dr. Holick explained, your skin pigment acts as a natural sunscreen, so the more pigment you have, the more time you'll need to spend in the sun to make adequate amounts of vitamin D.
- Feeling 'blue.' Serotonin, the brain hormone associated with mood elevation, rises with exposure to bright light and falls with decreased sun exposure. In 2006, scientists evaluated the effects of vitamin D on the mental health of 80 elderly patients and found those with the lowest levels of vitamin D were 11 times more prone to be depressed than those who received healthy doses.³
- You're 50 years - As mentioned, as you get older your skin doesn't make as much vitamin D in response to sun exposure. At the same time, your kidneys become less efficient at converting vitamin D into the form used by your body and older adults tend to spend more time indoors (i.e. getting even less sun exposure and therefore vitamin D).
- You're obese (or have a higher muscle mass) - Vitamin D is a fat-soluble, hormone-like vitamin, which means body fat acts as a 'sink' by collecting it. If you're overweight or obese, you're therefore likely going to need more vitamin D than a slimmer person -- and the same holds true for people with higher body weights due to muscle mass.
- Your Bones Ache - According to Dr. Holick, many who see their doctor for aches and pains, especially in combination with fatigue, end up being misdiagnosed as having fibromyalgia or chronic fatigue syndrome. 'Many of these symptoms are classic signs of vitamin D deficiency osteomalacia, which is different from the vitamin D deficiency that causes osteoporosis in adults,' he says. 'What's happening is that the vitamin D deficiency causes a defect in putting calcium into the collagen matrix into your skeleton. As a result, you have throbbing, aching bone pain.'
- Head Sweating - According to Dr. Holick, one of the first, classic signs of vitamin D deficiency is a sweaty head. In fact, physicians used to ask new mothers about head sweating in their newborns for this very reason. Excessive sweating in newborns due to neuromuscular irritability is still described as a common, early symptom of vitamin D deficiency.
- You Have Gut Trouble - Remember, vitamin D is a fat-soluble vitamin, which means if you have a gastrointestinal condition that affects your ability to absorb fat, you may have lower absorption of fat-soluble vitamins like vitamin D as well. This includes gut conditions like Crohn's, celiac and non-celiac gluten sensitivity, and inflammatory bowel disease.

Optimizing your Vitamin D level

Researchers have pointed out that increasing levels of vitamin D3 among the general population could prevent chronic diseases that claim nearly one million lives throughout the world each year. Incidence of several types of cancer could also be slashed in half. As mentioned by Dr. Holick, one of the Nurses' Health Studies showed that nurses who had the highest blood levels of 25-hydroxyvitamin D, averaging about 50 ng/ml, reduced their risk of developing breast cancer by as much as 50 percent. Similarly, a Canadian study done by Dr. Knight showed that women who reported having the most sun exposure as a teenager and young adult had almost a 70 percent reduced risk of developing breast cancer. Dr. Holick noted:

'Studies have shown that if you improve your vitamin D status, it reduces risk of colorectal cancer, prostate cancer, and a whole host of other deadly cancers by 30 to 50 percent. You're correct. Cancer is a big deal. You need to realize that vitamin D is playing a very important role in helping to maintain cell growth and to help fight cancer when a cancer cell is developing in your body.'

Vitamin D also fights infections, including colds and the flu, as it regulates the expression of genes that influence your immune system to attack and destroy bacteria and viruses. In this interview above, Dr. Holick expounds on these and many other health benefits of vitamin D. For instance, optimizing your vitamin D levels can help protect against:

- Cardiovascular disease. Vitamin D is very important for reducing hypertension, atherosclerotic heart disease, heart attack, and stroke. According to Dr. Holick, one study showed that vitamin D deficiency increased the risk of heart attack by 50 percent. What's worse, if you have a heart attack and you're vitamin D deficient, your risk of dying from that heart attack creeps up to nearly 100 percent!
- Autoimmune diseases. Vitamin D is a potent immune modulator, making it very important for the prevention of autoimmune diseases, like multiple sclerosis and inflammatory bowel disease.
- Infections, including influenza. It also helps you fight infections of all kinds. A study done in Japan, for example, showed that schoolchildren taking 1,200 units of vitamin D per day during winter reduced their risk of getting influenza A infection by about 40 percent. I believe it's far more prudent, safer, less expensive, and most importantly, far more effective to optimize your vitamin D levels than to get vaccinated against the flu.
- DNA repair and metabolic processes. One of Dr. Holick's studies showed that healthy volunteers taking 2,000 IUs of vitamin D per day for a few months up-regulated 291 different genes that control up to 80 different metabolic processes, from improving DNA repair to having effect on autoxidation (oxidation that occurs in the presence of oxygen and/or UV radiation, which has implications for aging and cancer, for example), boosting your immune system and many other biological processes.

How Much Vitamin D Do You Need for Optimal Health?

When it comes to vitamin D, you don't want to be in the 'average' or 'normal' range, you want to be in the 'optimal' range. The reason for this is that as the years have gone by, researchers have progressively moved that range upward. At present, based on the evaluation of healthy populations that get plenty of natural sun exposure, the optimal range for general health appears to be somewhere between 50 and 70 ng/ml. As for how to optimize your vitamin D levels, I firmly believe that appropriate sun exposure is the best way.

If you can't get enough sunshine for whatever reason, then a safe tanning bed would be your next best option. Most tanning equipment uses magnetic ballasts to generate light. These magnetic ballasts are well-known sources of EMFs that can contribute to cancer. If you hear a loud buzzing noise while in a tanning bed, it has a magnetic ballast system. I strongly recommend you avoid these types of beds and restrict your use of tanning beds to those that use electronic ballasts.

If your circumstances don't allow you to access the sun or a safe tanning bed, then you really only have one option if you want to raise your vitamin D, and that is to take a vitamin D supplement. As a

general guideline, research by GrassrootsHealth suggests that adults need about 8,000 IUs per day to achieve a serum level of 40 ng/ml.

How do you know if your vitamin D level is in the right range?

The most important factor is having your vitamin D serum level tested every six months, as people vary widely in their response to ultraviolet exposure or oral D3 supplementation. The test is called 25(OH)D, also called 25-hydroxyvitamin D, and you can have it done by virtually any physician. Knowing your vitamin D levels is one of the most important tests you can take, so please, if you haven't checked your levels before, do it now -- I cannot stress the importance of this enough.

Vitamin D levels – 25 Hydroxy D

Level	nmol/L	ng/mL
Deficient	<125	<50
Optimal	125- 175	50 - 70
Excess	>250	>100

Remember, more than 75 percent of the world's population is vitamin D deficient and most don't know it! This is very serious as Vitamin D is essential for a healthy immune system. Deficiency is associated with increased rates of cancer, multiple sclerosis, and even all-causes of death. Why has the epidemic occurred? We derive our vitamin D from sunlight. The body converts the light hitting our skin into Vitamin D. Some theories include increased pollution, increased use of sun screens, people spending more time indoors on their videogames and cell phones, and other ideas. Yet frequently I have patients who spend a lot of time outdoors, and even they also have vitamin D deficiency.

Enter the mysterious world of Chemtrails. What are these? Don't I mean contrails? Chemtrails are the patterns of lines that remain in the sky after a plane spray – releases chemicals of some sort. One can see patterns of lines, some parallel, some crisscrossing, that remain much longer in the sky than the normal contrail exhaust lines from jet planes. There is speculation that these chemtrails contain chemicals, biological agents, heavy metals, or who knows what. There are many reports of people noting that they become sick, especially with respiratory and eye problems, during chemtrail spraying. Reports of chemtrails come from many countries including most states in the United States and several countries in Europe. One theory I heard is that chemtrails were designed to reflect the sun's light in order to reduce the atmospheric temperature. Nobody knows for sure and no government is admitting to the program. Yet the sittings of these lines of white trails in the sky continue. When did Chemtrails begin? As far as we know, in 1998 or 1999, and possibly before that. What a coincidence! Chemtrails began a few years before we noticed the increasing epidemic of vitamin D deficiency. If there really is such a program as chemtrails (I personally have seen them many times over the skies), and if they contain particles that reflect sunlight, maybe the chemtrails are acting as a barrier so that we are receiving less sunlight and thus are becoming vitamin D deficient. After a while, on a sunny day, one sees the chemtrails gradually dissipate. The sun shines again. Perhaps, however, the tiny particles of whatever is sprayed by the chemtrail airplanes are enough to keep us from getting our necessary 'dose' of sunlight. My guess is this was not the intended consequence of the chemtrails program. However, it certainly would be a very dangerous one, if this theory is correct.

7. SULPHUR (MSM – Methylsulfonylmethane)

What is Sulphur?

MSM is not a medicine, drug or a food additive. It is a nutritional food supplement found in all foods, milk, fruits, meats and vegetables. MSM is a natural form of organic Sulphur found in all living organisms. Sulphur is the eighth most common element by mass in the human body, behind oxygen,

carbon, hydrogen, nitrogen, calcium, phosphorus and potassium. The two sulphur-containing amino acids, methionine and cysteine, play essential physiological roles throughout the body. However, sulphur has been consistently overlooked by those addressing the issues of nutritional deficiencies. In fact, the National Academy of Sciences has not even assigned a minimum daily requirement (MDR) for sulphur. One consequence of sulphur's limbo nutritional status is that it is omitted from the long list of supplements that are commonly artificially added to popular foods like cereal.

The body uses Sulphur to create new, good, healthy cells. Vitamins and amino acids work with Sulphur during this process. Imagine a nutrient more important to health than magnesium, zinc, iron, copper, sodium, iodine-and, for that matter, many vitamins. Assume that it has incredibly diverse roles, boosting resistance to disease, helping regulate blood sugar, preventing aches and pains, and even holding your skin and organs together. It's a nutrient so essential for life that you would die without it. But get this: it has been all but ignored by dieticians, physicians, and researchers. The nutrient is Sulphur, a yellow mineral referred to as brimstone in the Bible and used medicinally for thousands of years. Flip through most nutrition textbooks, and you'll discover that Sulphur is hardly ever mentioned, despite it being an abundant mineral, accounting for 1 percent of your weight.

Why SULPHUR?

Sulphur enables the transport of oxygen across cell membranes, and oxygen is necessary for healthy cellular regeneration in mammals. Plants, on the other hand, require carbon dioxide for cell regeneration, and plants can store Sulphur, while man cannot. Man eliminates carbon dioxide, and plants eliminate oxygen. Thus, the Sulphur cycle is symbiotic and vital for life as we know it.

When many health professionals are asked about Sulphur, they state as if reading from a cue card, 'We get all the Sulphur we need from the food we eat.' That was true until man decided to change the way we grow our food and what we feed our crops.

In 1920, Otto Warburg began his study of cancer in both plants and man, for which he received a Nobel Prize in 1931. He proved that cancer in man is anaerobic. Anaerobic, by definition, is cellular metabolism without oxygen. On the contrary 'Cancer' in plants is linked with too much intracellular oxygen, or aerobic metabolism. There is real symbiosis between mammals and plants. They love us for the Carbon Dioxide and we love them for the Oxygen and Sulphur. A study of the periodic table of elements proves that Sulphur, selenium, and tellurium are the only three oxygen transport minerals. Further study shows that chlorine and fluorine are detrimental to such oxygen transport, yet these elements have been added to make our teeth 'healthier' and our water 'more pure' or free from bacterial infestation. These elements are poisonous at higher concentrations, and they block the uptake of both oxygen and Sulphur. Drinking city tap water is discouraged for this plain reason.

The Study believes that a widespread deficiency in the mineral Sulphur may be responsible for the great increase in disease in the U.S.

Healthy cellular metabolism is the basis for cellular regeneration of all of our cells. That is the bottom line for the human body. Without intracellular oxygen, we begin to degenerate long before our biological clock runs out.

We began life as a single cell, and from that one cell we have made and regenerated all the cells of our body in a healthy manner, unless that regeneration is thwarted by the food we eat.

Why do we need SULPHUR?

Without proper levels of Sulphur, our bodies are unable to build good, healthy cells, and this leads to illness. Organic Sulphur forms 146 different chemical combinations. Sulphur will combine with all

metals except gold and platinum to form inorganic sulfides. Inorganic sulfides convert these hazardous toxic metals into non-hazardous, stable forms which are safely ushered out of the body. By bonding with all the toxic heavy metals, organic Sulphur can safely chelate and remove these toxic metals from our bodies. Sulphur, with an atomic number of 16, is known to bond with almost every other mineral. Sulphur has demonstrated its ability to detoxify heavy metals in conjunction with the transport of oxygen across the cell membrane, thus allowing regeneration. Sulphur is also the key player as a precursor for the utilization of amino acids, the body's building blocks. Of all of the amino acids, 70% of them are Sulphur based.

If SULPHUR is found in our food, why do we need to supplement with SULPHUR?

The reason is its volatile nature. Sulphur is quickly lost from food when it is processed, cooked and/or stored. The second you pick fruit or vegetables from the tree or vine, it begins rapidly losing Sulphur. Even in meats, Sulphur is not as abundant as it used to be. Today, animals are being fed with dried, stored grasses, hay and grains, deficient in Sulphur. When your body uses the Sulphur molecule to produce a new cell, it is consumed in the process, and the Sulphur is lost forever. We need to continuously replenish the body's supply of Sulphur to produce new, good, healthy cells. A conventional diet does not supply the minimum requirement of Sulphur. It is absent in synthetic food additives, or absent once man touches it. At best eat raw food. With today's modern diet of cooked and otherwise processed and diluted foods, most - if not all - diets of civilized man are deficient in this critically important ingredient.

How safe is SULPHUR?

Sulphur is as safe as drinking pure water. Because of its inert nature, Sulphur is non-allergenic, non-pyretic, and has no interfering or undesirable pharmacological effects. It can even be used as a safe blood diluent. You cannot overdose with Sulphur. The body will use what it needs, and after 12 hours, will flush any excess amounts out of the body. Sulphur will flush what the body does not retain semipermanently every 12 hours, and because it is a free radical and foreign protein scavenger, Sulphur cleans the blood stream, so allergies to food and pollens go away in about 3 or 4 days. To maintain good, healthy cells, take Sulphur in the morning and the evening.

Why do we need Sulphur in our Diets?

Sulphur plays many roles in the body, including the stimulation of the growth of healthy skin, hair and nails. It is needed by the body for healthy, connective tissues and joint function, proper enzyme activity and hormone balance, along with the proper function of the immune system. Unfortunately, our food today is grown in soil that is deficient in trace minerals and Sulphur that our bodies need to build our immunity and repair our bodies. Since the 1950s, commercial farmers have used petroleum-based fertilizers that deplete the Sulphur found in our soils. In 1954, chemical fertilizers were mandated by our government. Fertilizers such as ammonium nitrates and sulfates, which lack bioavailability, appear to have broken the Sulphur cycle. This appears to have contributed to the decline of our health, wealth, mental acuity, and quality of life. Finland, alarmed over the increasing disease rate of its population, took a hard look at chemical fertilizers and banned all of them, fearing the levels of cadmium. They were not aware of the Sulphur connection or Krebs cycle. Since doing so, they have become a leading supplier of 'Bio-Friendly' or completely organic foods in Europe.

Because bio-available nutritional Sulphur plays such a major role in these healthy body functions and others, it was found that supplementation with Sulphur improves many health problems such as: allergies, asthma, emphysema, lung dysfunction, arthritis, headaches, skin problems, stomach problems, digestive tract problems, circulation, cell osmosis and absorption.

There is much confusion regarding allergy to sulpha-containing drugs. MSM or Sulphur is not a sulphite or a sulpha drug. It is a nutrient and a naturally occurring compound in the environment and in the human body. Sulpha-based drugs, also known as sulphonamides, do not occur naturally and are used as antibiotics. The sulpha molecule is much larger and can cause severe reactions in some individuals. Many people are sulphite sensitive, and most often, they are asthmatic adults and predominantly women. While many people are allergic to sulpha drugs, no similar reactions have ever been reported with MSM. A third sulphur-containing compound, known as sulphites, is a form of preservative that can cause allergic reactions in some individuals. The human body produces sulphites in its normal metabolism of sulphur containing amino acids. Sulphur compounds have been used for more than 300 years and are generally considered safe.

MSM does not contain sulphites and should not cause a reaction in sulphite-sensitive individuals.

Another reason for sulphur deficiency is due to the gut dysbiosis either from ingestion of prescription medication like birth control pills, antibiotics, antacids, and so on, and the proliferation of sulphate reducing microbes that make sulphur unavailable to the body, and metabolise sulphur into sulphites which are toxic to the body. Sulphate-reducing bacteria (SRB) colonize the guts of about 50% of humans. It causes havoc to the pipe buried beneath the soil, making them corrode. In autistic children, severe deficiency of sulphate is found 95% of the time due to an overgrowth of these sulphate-reducing microbes.

Yes 85% of our body's immune system can be found in the gut. Not many people know that an adult on average carries 2 kg of bacteria in the gut. There are more cells in that microbial mass than there are cells in an entire human body. It is a highly organised micro-world, where certain species of bacteria have to predominate to keep us healthy physically and mentally. Their role in our health is so monumental that we simply cannot afford to ignore them.

How does SULPHUR function?

Sulphur makes cell walls permeable, allowing water and nutrients to freely flow into cells and allowing wastes and toxins to properly flow out. Amino acids, which are all Sulphur -bonders, are the building blocks of the body. Each one plays a major role in the production of hormones and enzymes, which regulate the body's activities. Sulphur and vitamin C are used together in the body to build healthy new cells. Sulphur provides the flexible bond between amino acids in proteins. Without Sulphur, the new cell is not permeable, and osmosis is hampered. These cells lose their flexibility as seen by scar tissue, wrinkles, varicose veins, hardened arteries or damaged lung tissues (emphysema).

What Dosage of SULPHUR (MSM) should I take?

Good health practices involve replacing essential substances that our bodies naturally use up or lose through illness or abuse. If you are physically active and get sore muscles after such activity, try 1/2 teaspoon and you will notice a difference. Keep in mind that the body is much more abused by toxins and free-radicals in the metropolitan cities than in rural areas and may require more Sulphur to maintain optimum health. The level of disease your body is experiencing will also affect the amount of Sulphur needed to carry out daily function and proper repair of cells. Some people will take between 1-3 teaspoons depending on the level of energy and wellness they wish to obtain. You cannot overdose on Sulphur, so feel free to experiment. Expect general pain reduction, more energy, clearer thinking and increased sense of well-being. Many members with grey and white hair report

their hair darkening or returning to natural colour, and liver spots diminishing. Many who were interviewed, after several months or a year or so of taking organic Sulphur reported they decided to eliminate the barrage of expensive vitamins they had been taking. They were no longer required and they saved much money each month.

Benefits (Remember SULPHUR is derived from DMSO)

1. Skin.

Skin Conditions: The skin is the largest organ in the body, and it's like a huge kidney or lung. Sulphur is known as 'the beauty mineral,' and what we really are saying is that the skin is more beautiful if its cells are able to regenerate. The skin is the backup for the liver, and someone in liver distress shows it in the cells of their face and skin. When the internal filters are working well, the extracellular fluids are not polluted and the immune system is allowed to protect the body from infections, especially acne, psoriasis, rosacea (red skin splotches), liver spots, and disorders associated with Lupus Erythematosus have been greatly reduced or eliminated. With mild rosacea and acne, sometimes in as little as two weeks. Skin tone, colour, softness, pliability and appearance improve after 6 - 8 months of taking this organic Sulphur according to the established guidelines.

Scar tissue: It is the Sulphur in Aloe Vera leaves that soothes and repairs skin that has been cut, scraped, burned or damaged. The body then repairs the skin with the proper raw materials. Expect a gradual reduction of facial and body scars (after 2 - 3 years use). Burn victims often experience skin that is flat, purple and leathery. After only taking Sulphur for a few days, one may notice an increase in stamina and energy. Over time, an astonishing effect on the scarred skin is seen. The skin begins to turn pink and fill in. Damaged cells from trauma or chemical processes cannot regenerate unless the ability to transport of oxygen across the cell membrane is functioning. Oxygen is a large molecule, so nutrient uptake is also improved when the cell membrane becomes pliable and healthy. The purity of the Sulphur is an important factor. Participants' report that tattoos will noticeably fade after a year or so. The body 'interprets' the tattoo ink as a foreign toxin and will detox itself from it.

Wrinkles: Your skin will glow, and it will become smoother and suppler as your cells become healthier. Skin cells live about two or three weeks. Red blood cells live for about four months, while white blood cells live on average more than a year. Colon cells have it rough: They die off after about four days. Sperm cells have a life span of only about three days, while brain cells typically last an entire lifetime (neurons in the cerebral cortex, for example, are not replaced when they die, but it's only as healthy as what we put into it.) If our skin is deficient in Sulphur, old skin cells are replaced with new cells that are stiff and contribute to wrinkling.

Sulphur supplementation helps the body replace bad cells with good, healthy, elastic cells. Over time, wrinkles, brown and black spots, and skin tumours go away as new cells replace the bad. There is nothing you can put into your body that is better for your cells than this Sulphur. Remember, Sulphur is a food. You can even brush your teeth with Sulphur.

2. Allergic reactions

Sulphur has a broad and profound beneficial effect in ameliorating diverse allergic responses. Sulphur ameliorates allergic that exist in many different forms. Subjects find a direct correlation between concentration of Sulphur used and resistance to allergens. **Environmental Allergies:** Subjects with chronic to severe allergies to environmental materials such as house dust, pollen, wool, animal hair, feathers, and other diverse allergens report substantial to complete relief of their varying from 50 to 1000 mg. per day. Allergy symptoms ranged from respiratory congestion to inflammation, itching, mucous discharges, and general discomfort. Although Sulphur alone may not totally eliminate allergic responses, the majority of subjects report a significant reduction in concurrent anti-allergy medication required to keep their allergic symptoms to a minimum.

Individuals with asthma or hay fever typically report equivalent or better control of symptoms with one-quarter or less of the prior required level of medication.

Food and Drug Allergies: Individuals who manifest an allergic reaction to drugs such as aspirin, nonsteroidal anti-arthritis agents (Indocin, Motrin) and oral antibiotics, as well as those who are mildly to severely allergic to various foods such as cereals, shrimp, and other seafood, milk, etc., report either a lessened intolerance or a complete tolerance to these substances when ingesting 100 to 1000 mg. of Sulphur concurrently. Thus, a major application of Sulphur may be as a safeguard against allergic response to orally ingested drugs, foods, or beverages which are allergens or irritants to individuals sensitive to these substances.

Chemical Sensitivities: Extreme or complex chemical sensitivities, sometimes referred to as environmental illness—being allergic to or having a strong, sensitive reaction to many things like perfume, pets, soaps, many foods, spices, fabrics and lotions. Its onset is mysterious and often related to repeated, ongoing trauma and an often unconscious belief that the world is dangerous. Recovery is slow and gradual due to complex cell repair and immune system healing.

Respiratory system

Asthma, and Emphysema: Sulphur is also an anti-oxidant that detoxifies the body. Some people with more serious conditions stopped depending on the bottled oxygen they had been dragging around. Smoking does not cause emphysema. Horses and dogs get emphysema, and they don't smoke. Yes, smoking may contribute to the loss of alveoli and breathing capacity of the lung, but it is the deficiency in Sulphur that causes this condition. Remember that the body can repair itself if given the proper building blocks to perform the necessary repairs. Supplementation with Sulphur can reverse emphysema by supplying the proper nutrients needed to replace smoke-damaged cells with good, healthy cells.

3. Joints

Arthritis: All types of arthritis and ankylosing spondylitis, with long-term use of Organic Sulphur, report much less pain and dramatically increased mobility.

Firstly Sulphur is vital for producing collagen (the primary constituent of cartilage, joints and connective tissue) and therefore improves the integrity of cartilage and joints.

Secondly Sulphur has an analgesic or pain reducing activity. Sulphur reduces inflammation, one of the most common symptoms associated with gout and arthritis.

Thirdly Sulphur increases blood supply whilst reducing muscle spasms. Increasing blood supply allows for fresh oxygen to be supplied to the site of injury, resulting in a faster recovery process. Sulphur been reported to reduce the occurrence of, or to entirely eliminate, muscle cramps of the back and leg, both caused by inactivity and by intense use (as with runners and other athletes who experience cramps while competing). Sulphur been reported to reduce the occurrence of, or to entirely eliminate, muscle cramps of the back and leg, both caused by inactivity and by intense use (as with runners and other athletes who experience cramps while competing).

Also, it greatly reduces or eliminates pain from chronic arthritis. Many people with musculoskeletal system disorders, inflammation pains from other than arthritis, and other pains (such as migraine) have reported substantial and long-lasting relief while using Sulphur. Also, it greatly reduces or eliminates pain from chronic arthritis. Many people with musculoskeletal system disorders, inflammation pains from other than arthritis, and other pains (such as migraine) have reported substantial and long-lasting relief while using Sulphur. The use of Sulphur with ascorbic acid is particularly useful in correcting night leg cramps. Sulphur is capable of reducing in incidence of or entirely eliminating leg and back cramps, muscle spasms, and general soreness, particularly in

geriatric patients who experience cramps at night or after long periods of inactivity. It is also effective for athletes who experience severe leg cramps during their sports activity.

4. Cardio-vascular

Heart: Your heart has many specialized conductive fibres, which need prime Sulphur levels in your blood. Give it the 2 months test of ingesting organic Sulphur at a fairly high dose twice a day. It may change your ECG.

Hypertension: All study members, who participated over the long term, report high blood pressure returning to normal (over 100 cases), the breakdown of calcium plaque in the arteries, and on their own decision, eventually going off all related medication. Cholesterol was noticeably reduced, as was hardening of the arteries. When taking adequate supplementation of Sulphur, the body will function like it is supposed to, thus eliminating the concern for cholesterol content. Your body will regulate it naturally. When supplemented by Sulphur, one can enjoy again those foods he/she did, while cholesterol count remains normal.

It is estimated that humans obtain about ten percent of their Sulphur supply from drinking water. Remarkably, people who drink soft water have an increased risk of heart disease compared to people who drink hard water. Many possible reasons have been suggested for why this might be true, and just about every trace metal has been considered as a possibility. However, I believe that the real reason may simply be that hard water is more likely to contain Sulphur.

An article was published in 1960 when they induced arteriosclerosis in monkeys with high fat diet. Once they gave them Sulphur containing nutrients, it prevented the plaque build-up. Dr. Stephanie Seneff is a senior scientist and she conducted research for more than three decades. She maintains Sulphur deficiency is pervasive, and may be a contributing factor in, Obesity, Heart disease, Alzheimer's disease, Chronic fatigue and many more. She also believes conventional medicine is seriously confused about cholesterol, which is closely interrelated with sulphur. Furthermore, healthy cholesterol and sulphur levels are also highly dependent on your vitamin D levels. Here, she discusses the importance and the intricate relationships among these three factors. Through her research, she believes that the mechanism we call 'cardiovascular disease,' of which arterial plaque is a hallmark, is actually your body's way to compensate for not having enough cholesterol sulphate. Cholesterol sulphate supports platelet adhesion and may be one of the factors determining the prothrombotic potential of atherosclerotic lesions. Cholesterol sulphate is a highly amphipathic molecule, having both polar (water soluble) and nonpolar (not water-soluble) portions in its structure. It is present in a relatively high concentration in the epidermis of human skin, particularly in the granular layer. It needs the Sulphur to maintain its proper physiology.

5. Chemical

Toxin Removal and Chelation: One specific purpose of organic Sulphur, through the enhancement of amino acid production, is detoxification and chelation of toxins and heavy metals, i.e. individual cellular health. This is especially true for organ and brain detoxification. The cellular oxygen-nutrient transfer protocol and amino acid production associated with organic Sulphur are the basis for this natural, gentle detoxifying process. It appears to be safer, less intrusive, and less expensive than other chelation protocols. Sulphur helps drug withdrawal and repairs prednisone drug damage. Sulphur, like DMSO, enhances urinary taurine secretion produced by aromatic hydrocarbons in man and neutralizes the toxicity of anticholinesterases, thereby providing protection against insecticide exposure or ingestion.

6. Gastro intestinal

We need to summarize Intestinal dysfunction syndrome that is so common today. It is now believed to be contributing factors to many chronic diseases such as allergies, autoimmune and inflammatory disorders, or degenerative diseases. Our gastrointestinal tract having a surface area of about 200 to

300 Square meters, and certainly it is the largest interfaces between the human internal environment and the outside world. A number of factors can affect the delicate balance between transport of nutrients and exclusion of detrimental macromolecules, and lead to serious health problems.

Intestinal Dysbiosis

A frequent disorder of intestinal function is dysbiosis, i.e. the overgrowth of pathogenic bacteria in the intestine. Our GI micro flora plays critical roles in the digestion and absorption of nutrients, in the synthesis of vitamins (B and K groups) and fatty acids, in the detoxification of ingested chemicals, but also in the regulation of the immune system. Alterations in the composition of the gut micro flora may have serious consequences for the host health. Factors that can affect the micro flora include antibiotic use, stress, and diet.

Leaky Gut Syndrome

As discussed above, the healthy intestinal mucosa normally absorbs only small molecules that result from complete digestion: amino acids, simple sugars, fatty acids, vitamins, and minerals. Intestinal cells express specialized carrier proteins that transport nutrients through the intestinal wall and into the bloodstream. Bigger molecules will not be transported by these systems, and are normally kept within the gut due to the fact that the intestine mucosal cells are tightly packed together. Leaky Gut Syndrome (LGS) is a condition in which the ability of the intestinal wall to keep out large and undesirable molecules is reduced. Substances that are normally kept within the intestines are 'leaking' across the intestinal wall. This happens when the spaces between the cells of the intestinal wall become enlarged; toxins will then make their way to the bloodstream. Undigested, large molecules pass into the bloodstream. The immune system recognises these molecules as foreign and raises antibodies against them. As a result, affected patients will develop allergies to many types of foods, which actually initiates a vicious cycle, since allergies will cause gut inflammation that leads to more intestinal permeability. I did mention it is one of the side effects of GM foods.

Irritable Bowel Syndrome (IBS)

Among the pathologies that develop following intestinal dysbiosis and leaky gut, the most frequent is probably Irritable Bowel Syndrome (IBS). IBS is characterized by abdominal pain or discomfort along with signs of bowel dysfunction, most commonly diarrhoea and/or constipation. Current figures suggest that 10-20% of the population may suffer from the disease. IBS is believed to be the result of inappropriate and chronic activation of the mucosal immune system. The causes of this activation are not clear, the illness is most probably multifactorial.

In a healthy person, the small intestine usually is neutral in pH, the stomach is very acidic (pH 2.5) and the large intestine is usually around pH 6.5. When we're under stress, we get a huge acid dump into our gut, causing our small intestines to go from neutral to acidic. In the past several years, there has been a disturbing phenomenon of small intestinal bacterial overgrowth or intestinal dysbiosis that colonize the small intestine. The large intestines and not the small ones, is meant to be colonized by bacteria. These rod-shaped bacterial colonies are associated with damaging the lining of the small intestine, and in high enough amounts, produce enough acids that are related to neurological and cognitive symptoms known as 'leaky gut syndrome'. Those who suffer from coeliac disease, autism, and schizophrenia often share this common symptom of 'leaky gut syndrome'. What is surprising is that these rod-shaped bacteria never existed before in humans. When cells exist in a low pH or acidic environment, their ability to transport oxygen into the cells and remove toxins becomes impaired. The lack of oxygen creates cellular malfunction, and the result is disease such as cancer. There's a popular expression we've often used: 'what does your GUT tell you?' Did you realize that you have a second brain? 'All illness stems from the gut.' The reason there is no such thing as 'mental' illness is because we can't separate the brain from the rest of the body, especially not from our small intestines. Our brains are intricately intertwined with every organ system in the body, especially with the neurons or nerve cells in our gut. Did you know that we have more neurons

in our gut that in our brain? In fact 95% percent of the 'feel good' neurotransmitter serotonin manufactured in our body is not made in the brain, it's made in our small intestines, our gut. A 'healthy' person has approximately 4 pounds of beneficial probiotics comprised of beneficial bacteria, yeast and viruses that populate the gastrointestinal tract or gut. These non-human organisms are also called the 'microbiome' and hopefully provide a symbiotic relationship with our enterocytes or gut cells that line the small intestines by helping digest fibre and other nutrients into our body. It's important to have more of the beneficial gut flora because they work symbiotically with our enterocytes to produce vitamins (like B1, B2, B3, B5, B6), K2, enzymes, neurotransmitters, antibiotics, and so on. In other words, ideally we have our very own biochemical factory that synthesizes the substances our bodies need to help keep our immune system intact and our moods balanced. Unfortunately, the foods we eat, the air we breathe, and the types of personal hygiene products and pharmaceutical medications we've taken also affects the health of our microbiome. Most often, there's an imbalance that allows opportunistic flora to overwhelm the beneficial gut flora, thereby causing disease. When we are born, our gastrointestinal tract is sterile, and is primarily populated with the flora from our mother as we pass through the birth canal. In essence, we 'inherit' the health or imbalance of her gut flora. Diverticulosis is the condition where the large intestine gets sluggish, clogged and quits pulsing properly. The faeces stop moving properly, and nutrition is not passed through the intestine walls. Sulphur soothes the coating of the intestine with a Teflon-like coating, allowing faeces to pass easily through the intestine. Diverticulosis is a Sulphur and vitamin C deficiency.

Candidiasis: Candida is yeast that normally lives in the colon. If body pH is in check, Candida cannot live outside the colon. Women sometimes get Candida yeast infections. When the doctor prescribes an antibiotic, taking the antibiotic causes an imbalance in the body's pH and greatly reduces *Lactobacillus acidophilus*. This promotes spreading of Candida, resulting in an infection. Upon return to the doctor, more antibiotics are prescribed resulting in an ongoing cycle of infection. The infection spreads to the mouth evidenced by the white coating typically seen on the tongue – this is called thrush. It can even get into the brain. When this happens, the term for this infection is changed to epilepsy. In the blood, Candida will rob the nutrition and energy from the body, causing a so-called 'incurable disease', commonly called chronic fatigue. When the body burns energy it produces toxins. If toxins are not properly removed, the result is the 'incurable disease'. Sulphur can facilitate in the body's ability to combat this infection.

7. Central nervous system

Addictions and Food Cravings: Detoxification and reduction of addictions cravings and food cravings appears to be accelerated and reduced when people are maintaining abstinence from addictive substances and junk food. We have reports that the detoxifying phase of recovery is shorter and less intense.

ADD, ADHD, hyperactivity, depression, and mood swings are greatly relieved with the use of organic Sulphur. Organic Sulphur acts as a stabilizer or mood elevator and relaxes the nervous system. We have reports of people getting off antidepressants and Ritalin within as little as three days of starting to take Organic Sulphur R. Those who had been on antidepressants for a long time took a little longer. The ability of the body to produce its own glutathione appears to be the reason.

The ultimate source of Sulphur is volcanic rock, mainly basalt, spewed up from the earth's core during volcanic eruptions. The three principal suppliers of Sulphur (not MSM) to the Western nations are Greece, Italy and Japan. These three countries also enjoy low rates of heart disease and obesity and increased longevity. Hawaii's youth are faring less well than their parents, however, Hawaii ranks as the fifth from the bottom in obesity rates. The question of why Icelanders enjoy such remarkably low rates of depression, despite living at a northern latitude, where one would expect a high incidence of Seasonal Affective Disorder. She points out, furthermore, their excellent health record in other key areas: 'When compared to North Americans, they have almost half the death

rate from heart disease and diabetes, significantly less obesity, and a greater life expectancy. In fact, the average life span for Icelanders is amongst the longest in the world.'

In my view, the key to Icelanders' good health lies in the string of volcanoes that make up the backbone of the island. This means, of course, their soils today are highly enriched in Sulphur. The cabbage, beets and potatoes that are staples of the Icelandic diet are likely providing far more Sulphur to Icelanders than their counterparts in American.

8. Endocrine

Appears to help many specific body functions, such as increasing the body's ability to produce insulin. Diabetics are noticeably helped because bio-cellular organic Sulphur is essential for the management and production of insulin and Sulphur-based amino acids, which are necessary for the metabolism of carbohydrates.

9. Reproductive

Menstruation and Menopause: Over 90% of the women interviewed have reported fewer cramps, less PMS, and general reduction of discomfort during menstruation. Women experiencing menopause and peri-menopause may report life is noticeably more pleasant with fewer and much less intense symptoms. In over a dozen reports, including thyroid conditions, hormonal imbalances were gradually eliminated. In many cases all prescription medication was discontinued (at the member's own initiative). Sulphur is a mild diuretic, and is beneficial for PMS, cramps, nausea, and hot flashes.

10. Infectious

Hepatitis C: One person regenerated his liver to a healthy state after 25 years of Hepatitis C with only this specific Organic Sulphur (eighteen months of two table-spoons of organic Sulphur twice a day). Expect blood analyses may improve after about a year. Some Hepatitis C patients reported that the dark-skin of their legs started fading within two weeks. For Infection, especially chronic ones, Sulphur functions quickly throughout the system by increasing nutrient absorption which improves many digestive disorders such as constipation, heartburn, colitis. It is a natural antibiotic. Sulphur competes for binding receptor sites at the mucus membrane surface and therefore discourages infections such as candida and removes parasites such as round worms. The lining of the stomach and intestines too 'pliable or slippery' to sink their hooks into. *In vitro* and *in vivo* tests suggest that Sulphur has ameliorating or curing activity against a variety of medically important parasitic, microbial, and fungal problems of the intestinal and urogenital tracts. Sulphur is active against *Giardia lamblia* (traveler's diarrhoea), *Trichomonas vaginalis*, Nematodes, *Enterobius* and other intestinal worms, systemic infections by *Histoplasma capsulation*, *Coccidioides toxoplasm*, and other *in vitro* susceptible organisms.

Effective doses have been in the range of 750-1500 mg. per day. Sulphur may affect such infections by competing for binding or receptor sites at the mucous membrane surface presenting a blocking interface between host and parasite. Sulphur appears to augment immunological competence, which may also partly explain its effectiveness in treating parasitic infections.

11. Chemotherapy

Cancer is an anaerobic condition by definition. Study members who had cancer and used chemotherapy who took 30 grams of Sulphur during the chemotherapy had no side effects— there was less hair loss, nausea, or diarrhoea. There was, however, a surprisingly greater reduction of cancer cells counts, as reported by their oncologists. Lymphomas have been responding to Organic Sulphur both in decreased pain and decreased size of tumours. Some study members undergoing cancer treatment took 15 - 20 g organic Sulphur twice a day, and reported they had little or no nausea, diarrhoea, or hair loss during chemotherapy. There was also a surprisingly noticeable reduction of cancer cell counts as reported by their oncologists.

12. Foreign proteins

Sulphur is an anti-venom that can quickly bind foreign proteins resulting from snakebites, black widow bites, flea bites, bee stings and mosquito bites. People who take Sulphur have more alkaline blood and attract less mosquitos. Mosquitos seems to be attracted to people having not enough oxygen in their blood, making it more acidic. This has been proven. By alkalizing and oxygenate your blood, makes you much less of a target for biting insects. For Insect bites, Sulphur reacts with foreign protein (like venom & toxins injected by insects), by locking them up, neutralizing the poisons, which can then be harmlessly eliminated. For Sunburn, Sulphur contributes significant permeability and pliability to all tissues including the skin, it prevents blistering and promotes faster healing from sun or wind damage. Sulphur binds foreign proteins, anti-venom that neutralizes (rattle) snake bites, bee stings, mosquito and flea bites, brown recluse spider and black widow spider bites, and reduces drug hypersensitivity to non-steroid anti-arthritis drugs and oral antibiotics.

13. Glaucoma

It appears that there is regeneration of the cells of the 'drainage' system of the trabecular meshwork at the inner base of the iris. Subjects who suffer from increased intraocular pressure found that the drops they used to control their eye pressure often inhibited their ability to drive or read, where Sulphur has not demonstrated any such corneal disturbance. Sulphur softens leathery eye membranes, allowing nutrients to penetrate. It removes waste particle build-up (cataracts) and inside eye pressure (glaucoma), improves vision, muscle tone, red spots, damaged blood vessels for contact lens wearers (with Sulphur Eye Drops), and removes floaters.

14. Hair

Grey and white haired members have experienced a return to their natural colour hair. The natural colour that gradually returns to the nape of the neck indicates the regeneration of the pigment glands at the base of the hair follicle. Fingernails, toenails, and hair grow twice as fast. Users report a reduction in nail ridges and split hair ends. Excess Sulphur is flushed in 12 hours.

15. Teeth and gums

The power of oxygen may be best demonstrated in its ability to eradicate gum disease. Organic Sulphur, when used as an additive to toothpaste or tooth powder, appears to eliminate the plaque build-up on the teeth, but more importantly, it appears to regenerate the gums and 'tighten' previously loose teeth.

16. Obesity & Aging

Now comes the difficult question: why does Sulphur deficiency lead to obesity? The answer, like much of biology, is complicated, and part of what I theorize is guesswork. Sulphur is known as a healing mineral, and a Sulphur deficiency often leads to pain and inflammation associated with various muscle and skeletal disorders. Sulphur plays a role in many biological processes, one of which is metabolism. It is present in insulin, the essential hormone that promotes the utilization of sugar derived from carbohydrates for fuel in muscle and fat cells.

Cholesterol Sulphate is the link between obesity and the lack of Sun exposure.

Our skins produces huge amounts of cholesterol sulphate, which is both oil and water soluble and provides a healthy barrier against bacteria and other potentially disease-causing pathogens that might otherwise enter your body through your skin. And, due to its polarity, it can enter both fat cells and muscle cells with equal ease. Dr. Seneff proposes that, because of this, cholesterol sulphate may be able to protect fat and muscle cells from glucose and oxygen damage. She also argues when we are deficient in cholesterol sulphate, your muscle and fat cells become more prone to damage, which subsequently can lead to glucose intolerance; a condition where your muscles cannot process glucose as a fuel. As a result, your fat cells have to store more fat in order to supply fuel to your muscles, and excess fat accumulates as damage increases. Sulphur also plays an important role in

glucose metabolism. If sufficient amounts of Sulphur is available, it will act as a decoy to glucose, effectively diverting it to reduce the Sulphur rather than glycation and causing damage. This would have the beneficial effect of reducing inflammation, as sugar (glucose) is highly inflammatory and wreaks havoc in your body.

The glycation effect of the glucose triggers Advanced Glycation End products (or AGEs). A hot topic right now in the skin care world is 'glycation' – which is essentially the idea that carbs and refined sugar that you eat may attach to proteins such as collagen in your body and form new molecules called 'advanced glycation end' products, or AGEs. Too much sugar causes glucose molecules to attach to the proteins in collagen - the glue that holds skin together. As people age, proteins in the body can become damaged through the introduction of AGEs— one of the key factors in aging of the skin. These sticky brown compounds stiffen the otherwise elastic fibres in the skin, creating lines, blotches and wrinkles.

Like it or not, the more sugar you eat, whether processed or natural, the more AGEs are produced. Effects of the process at the cellular level of the skin's structure can result in wrinkling, loss of elasticity, stiffness, accelerated aging and compromised barrier function.

Other conditions that appear when microcirculation is damaged and cell turnover slows is a loss of volume in the face. It is already known that excess sugar can lead to a variety of health concerns like Diabetes, but what most forget is that too much sugar can also affect the skin. Eating too many carbohydrates and sugars can destroy the collagen in the skin. In fact, collagen is the most prevalent protein in the body. Once damaged, the once springy and resilient collagen and elastin become dry and brittle, leading to wrinkles and sagging. These aging effects start at about age 35 and increase rapidly after that, according to a study published in the British Journal of Dermatology.

One group that knows all too well sugar's ravaging effects: people with diabetes, who—because they can suffer from years of undetected high blood sugar—often show early signs of skin aging. 'Depending on how well their disease is controlled, diabetics can have up to 50 times the number of AGEs in their skin as those who don't have diabetes, says Karyn Grossman, MD.

When you eat foods with AGEs, they can gather in any number of tissues. The basic result is that your endothelium gets 'stiffer' and doesn't work efficiently.

AGEs block nitric oxide activity in the endothelium, keeping your blood vessels from relaxing and flowing freely. Stiff blood vessels that don't let blood flow freely are a major cause of high blood pressure and can lead to heart disease.

Processed foods aren't the only source of AGEs in today's world. A recent study looked at how well your blood vessels function before and after a meal containing AGEs. People who ate the high-AGE meal had their blood flow reduced by 62%. The ability of their larger vessels to dilate decreased by 36%.¹ AGEs don't only come from food. Pollutants like exhaust and smoke can cause AGEs to form too. And did you know that fructose undergoes glycation at about 10 times the rate as glucose? Now think about all those products that have high fructose corn syrup. Is it a surprise we're seeing skyrocketing rates of diabetes and other chronic inflammatory diseases?

Reference

1. Negrean M. 'Effects of low- and high-advanced glycation endproduct meals on macro- and microvascular endothelial function and oxidative stress in patients with type 2 diabetes mellitus.' *Am J Clin Nutr.* 2007 May;85(5):1236-43.

THE DIRTY TOXINS WE NEED TO AVOID

1.FLUORIDE

The official story on fluoride sounds wonderful: Our bodies need lots of water to perform properly, which is true. Drink the stuff, and you won't get cavities, we're told. It's a nice story, but there's a flipside to it — the side you've never been told. The fluoride dripped into our municipal water supplies isn't *naturally occurring fluoride* at all.

It's a combination of **hexafluorosilicic acid** and sodium **silicofluoride**. In a dry form it is known as Sodium fluorosilicate, before it is dumped into our water supply. These two chemicals are considered as highly toxic by the Environmental Protection Agency (EPA.) They're actually classified as hazardous waste and when packaged for transportation, they must be labelled as poison and handled by workers wearing industrial safety gear. It is toxic and has the ability to burn flesh to the bone, destroy eyes, and sear lungs so that victims drown in their own body fluid.

Slowly we accumulate loads of fluoride in our bodies. Even if our daily small daily doses are considered 'safe,' beware it soon accumulates to toxic levels.

When phosphate is mined as a fertilizer, toxic sodium fluoride is a nasty by-product and if it is dumped in our rivers, it kills our animals and plants. In order to stop this environmental destruction, they installed 'wet scrubbers' that captured the toxic fluoride chemicals, preventing them from being released into the environment. It needs to be dumped, but the 'Big Companies' managed to sell them, making a handsome profit. What are the economic advantages of that? Instead of paying money to dispose of toxic waste, money could now be made by selling fluoride to the water companies of the nation.

An unsuspected source of fluorides is pharmaceutical drugs. Around one-third of them are fluorinated. Fluoride is the most electronegative element and can substitute for hydrogen in medicinal compounds, making the compound stronger and more stable, acidic and lipophilic. These qualities increase the bioavailability of the drug and its ability to attach to binding sites on cellular receptors and enzymes. It makes psychotropic drugs more effective.

Fluorine is the most powerful oxidizing agent and the most electronegative chemical known. It is extremely toxic to mice and rats. If your toddler accidentally swallow more fluoride toothpaste than used for brushing, seek professional help or contact a poison control centre immediately. Children who swallow too much fluoride toothpaste can suffer acute poisoning, *even death*.

Fluoride has no nutritional value whatsoever. It is one of the most caustic of industrial chemicals.

Fluoride destroys our bodies

Once in the body, fluoride is a destroyer of human enzymes. It does this by changing their shapes. Enzymes trigger specific reactions in the body. One way they do this is by having the exact shape necessary, like a key in a lock. Fluoride changes the shape of the enzymes so they no longer fit. Once the proteins are changed, the body treats them as invaders, even though they beg to be reckoned. Austrian researchers proved in the 1970s that as little as 1 ppm fluoride concentration can disrupt DNA repair enzymes by 50%. When DNA can't repair damaged cells, we get old fast.

Fluoride prematurely ages the body, mainly by distortion of enzyme shape. Again, when enzymes get twisted out of shape, they can't do their jobs. This results in collagen breakdown, eczema, tissue damage, skin wrinkling, genetic damage, and immune suppression. Practically any disease you can name may then be caused. All systems of the body are dependent upon enzymes. When fluoride changes the enzymes, it can damage the:

- thyroid function
- immune system
- digestive system
- respiratory system
- blood circulation
- kidney function
- liver function

- brain function

The distorted enzymes are proteins, but now they have become foreign protein, which triggers autoimmune diseases, such as lupus, arthritis, asthma, and arteriosclerosis.

No wonder fluoride is highly damaging to the **thyroid gland** and research by Gorlitzer von Mundy in the 1930s, proved it when she used fluoride preparations to treat over-active thyroid illness. Their patients either drank fluoridated water, swallowed fluoride pills or were either bathed in fluoridated bath water; to end with a clogged thyroid.

The use of fluoride toothpaste in dental hygiene and the coating of teeth at the schools, do increase our levels of fluoride intake.

And even worse for the very young there is a major element of risk in baby formula made with fluoridated water, and they are even found their way into the 'anti colic' drops.

Our aging population is burdened with vast deposits of toxic fluoride.

Our immune system is very sensitive to fluoride. ¹ The distorted enzymes and proteins fools our body and our own immune proteins are not seen as part of us, thus our **immune system** targets them, known as an autoimmune disease. Autoimmune diseases is so common and they are generally known as Rheumatoid Arthritis, SLE, Asthma and Systemic Sclerosis to name a few.

There are two main types of **hypothyroidism**, the most common being an autoimmune disorder called Hashimoto's Disease, where your body attacks the thyroid, compromising its function. The other is thyroiditis, which is a chronic inflammation of the thyroid gland, which leaks hormones into the bloodstream, causing temporary hyperthyroidism, which damages the gland enough to eventually cause hypothyroidism. Common causes include immune system issues and iodine deficiency. Some alternative schools of thought believe that thyroid problems can result from emotional/energetic imbalances in the throat area.

The muscles, tendons, ligaments and bones are damage due to the enzymes toxic effect. Fluoride was used as an effective chemical to treat **osteoporosis** for many years. Its use would actually produce dramatic effects in changing the radiographic appearance of bones making them appear much denser, quicker than any of the other agents. The actual bone mass seemed to increase but it did not promote any mineralisation (depositing of calcium) resulting in poor bone quality and hence chances of fractures are higher. Fluoride seems to work on the X-ray picture thinking it increased the bone mass, but the flip-side of it is that it has a deadly side-effect — increasing the chances of bone fractures, especially of the hips. This toxic effect extends to the ameloblasts making tooth enamel, which is consequently weakened and then made brittle; and its visible appearance is, of course, dental fluorosis.

The enzyme poison hampers the DNA not to repair as it should, due to faulty chromosomes.

Fluorides are mutagenic, meaning, they can cause the uncontrolled proliferation of cells we call cancer. This applies to cancer anywhere in the body; but bones are particularly picked out. The incidence of osteosarcoma in a study reporting in 1991 showed an unbelievable 50% increase. A report in 1955 in the New England Journal of Medicine showed a 400% increase in cancer of the thyroid in San Francisco during the period their water was fluoridated.

My particular concern is the effect of fluorides on the **thyroid gland**. The thyroid gland produces hormones which control our metabolism - the rate at which we burn our fuel. Deficiency is relatively common. People become tired, cold, overweight, depressed, constipated; they suffer arthritis, hair loss, infertility, atherosclerosis and chronic illness. Sadly, it is poorly diagnosed and poorly managed by very many doctors in this country. What concerns me so deeply is that in concentrations as low as 1ppm, (fluoride) damages the thyroid system. Research by Galletti and Joyet, published in the prestigious Journal of Clinical Endocrinology and Metabolism showed that fluoride in the range of 2-5 mg. per day (what people now ingest in a fluoridated area) was enough to slow down thyroid function. Fluoride displaces Iodine in the body and competes for the receptor sites on the thyroid gland which respond to the thyroid stimulating hormone; so that less of this hormone reaches the thyroid gland and so less thyroid hormone is manufactured.

Professor Hume recently produced figures to show that 40% of pregnant women in the Tayside region of Scotland were deficient by at least half of the iodine required for a normal pregnancy.

Fluoride and Arteriosclerosis Healthy arteries are flexible and elastic, allowing efficient transfer of blood and nutrients from the heart to the rest of the body. Arteriosclerosis refers to a stiffening of the arteries, including loss of elasticity. This is a slow, progressive disease that may begin early in life from damage to the inner layer of the arteries. Numerous factors can cause or contribute to this damage, including high blood pressure, high cholesterol, diabetes and environmental factors (e.g. smoking).

Several studies have found that those chronically exposed to fluoride are at higher risk of suffering from arteriosclerosis. For example, the elastic properties of the ascending aorta were found to be impaired in patients with mild levels of fluoride toxicity. It has been suggested that fluoride-induced aorta-sclerosis, may accelerate sclerosis and calcification of conducting arteries, which in turn may further aggravate other aspects of fluoride toxicity.^{3, 4, 5, 6, 7}

Fluoridation of the nation's water supply will do little for our dental health; but it will have catastrophic effects on our general health. We must not subject our nation and children to this appalling risk. Once fluoride is added to our city water, millions of people are deliberately exposed to a hormone-altering agent. There is now a massive epidemic of low thyroid, low adrenal, and low functioning sex glands. Many people rightly complain, 'There must be something wrong with my hormones.'

How to rid our bodies from Fluoride.

- Purifying water by reverse osmosis (RO) or distillation in communities where water is fluoridated is a good start to slowing down your fluoride contamination. RO is considered by most to be 80 percent or so effective at removing fluorides from water. Boiling doesn't get rid of fluorides. It actually makes it more concentrated and permeates your food. But it's possible to distill fluoridated water to almost 100 percent free of fluorine. It's wise to add minerals back into distilled or RO water or it may chelate minerals out of your body, and most of us are mineral deficient already. Minerals are even more important for the body than vitamins, which need minerals to be effective. There are also trace mineral drops available in good health food stores. Even a pinch per pint of real unprocessed sea salt will help re-mineralize RO filtered or distilled waters.
- Magnesium is a very important mineral that many are lacking. Besides being so important in the metabolism and synthesis of nutrients within your cells, it also inhibits the absorption of fluoride into your cells!
- Calcium seems to help attract fluoride away from bones and teeth, allowing the body to eliminate it. So during any effort to detox fluoride, it is essential that you include a healthy supplemental dose of absorbent calcium/magnesium as part of the protocol.
- Vitamin D3
- Boron was studied in other parts of the world with pronounced success for fluoride detoxification. You can get boron from eating organic apples. Some use a mild solution of borax without additives (if it has a detergent odor it's impure) in distilled or fluoride free water. But I think it's best to get boron tablets sold as supplements. There are many from which to choose online. Some even come with magnesium and calcium included.
- Dry Saunas combined with exercise help release sodium fluoride stored in fatty tissues.
- Vitamin C in abundance is a helpful adjunct to fluoride detoxification.
- Chelating compounds such as bentonite clay, powdered zeolite, fulvic acid or diatomaceous earth

Halogens

Halogens compete with Iodine, and they are chlorine, bromine and fluorine. Many uninvited halogens do appear in our food, water, medications and environment as chlorides, bromides and

fluorides and they selectively attach to your iodine receptors, preventing iodine from working. Bromine has replaced iodine as a bleaching agent in breads and bake goods. Fluoride concentrations in toothpastes can be as high as 1500 parts per million.

Halogens and their relative atomic weights																		
																	F	Fluorine 18.99
																	Cl	Chlorine 35.45
																	Br	Bromine 79.90
																	I	Iodine 126.70
																	At	

Iodine intake immediately increases the excretion of bromide, fluoride, and some heavy metals including mercury and lead. Bromide and fluoride are not removed by any other chelator or detoxifying technique.

Dr. Kenezy Gyula Korhaz states that iodine chelates heavy metals such as mercury, lead, cadmium,

aluminium, and halogens such as fluoride and bromide, thus decreasing their iodine-inhibiting effects,² especially of the halogens. Iodine has the highest atomic weight of all the common halogens (126.9). Iodine is the only option when it comes to removing these toxic haloids from the thyroid and even the pineal gland where fluoride concentrates, especially when there is a deficiency of iodine in the body. The human pineal gland contains the highest concentration of fluoride in the body. Fluoride is associated with depressed pineal melatonin synthesis and this depression increases one's chance of cancer and insomnia.

The CDC ([Community Water Fluoridation](#)) boasted that water fluoridation as one of the 10 greatest health achievements of the 20th Century, but the government is calling for a reduction in the amount of fluoride it adds to public water supplies. Their reason is its negative effect on teeth when promotion of healthy teeth is the basic reason given for adding fluoride to the water.

An August 2006 Chinese study found that fluoride in drinking water damages children's liver and kidney functions. One of the strongest physiological effects of fluorides in drinking water (e.g. hydrofluorosilicic acid) is on the kidney, a point to consider in light of increased rates of kidney failure during recent decades.²

Kidney disease markedly increases an individual's susceptibility to fluoride toxicity. In healthy adults, the kidneys are able to excrete approximately 50% of an ingested dose of fluoride. However, in adults with kidney disease, the kidneys may excrete as little as 10-20%, and young children may only excrete 15% of an ingested dose—thus increasing the body burden of fluoride and increasing an individual's susceptibility to fluoride poisoning as renal osteodystrophy.

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2. GMO FOODS – Genetically Modified Organism

- Genetically modified organisms refer to food that is created by merging the DNA from one species with a different species. It never happens in nature.
- You cannot tell a GMO food by look or taste.

- The two main traits of GMO foods are herbicide tolerance and the ability to produce its own pesticide. This makes the plant toxic, and not just to insects.
- Nobody monitors human health impacts of GM foods.
- Children are particularly susceptible to the effects of GM food because of their fast-developing bodies, vulnerability to allergies, milk and nutritional problems and antibiotic resistant diseases.
- The safety of GMO foods is unproven and a growing body of research connects these foods with health concerns and environmental damage.
- Current GM foods include soybean, cotton, canola, sugar beets, corn, Hawaiian papaya, zucchini, yellow squash, potatoes, tomatoes, oils, golden rice and salmon. Avoid all food with these ingredients. Read the label.
- Unless it says, "Certified Organic Cane Sugar" on the label, it is probably sugar from modified sugar beets.

When we do enjoy the seemingly 'good natural looking fruit,' that kills any insect point-blank, they end up in our intestines. The roundup or the insecticide will not kill the plant, but believe me their 'sting' will hurt your intestines. GM foods (Genetically Modified Foods) are specially engineered in a lab, and poor 'Mother Nature' is left out of the equation. They are invented to create a new breed of foods (and other living things).

Our DNA is maliciously hacked in many ways, and one of the most insidious ways this is being done is via the agency of glyphosate, the active ingredient of Monsanto's nearly universally used herbicide, Roundup. Roundup was introduced in the 1970s and has been widely used in agriculture and horticulture for weed suppression, the world over. It has been used in over 160 countries. In the USA hundreds of millions of pounds of Roundup are applied in agriculture and horticulture on an annual basis. Globally, millions of tons of Roundup have been applied to the land. You virtually cannot get away from the stuff. It is in the air, water, soil and food chain.

Roundup is so prevalent that if you breathe air, drink water and juice, or eat food, you may well have Roundup and its active ingredient, glyphosate in your body. And that's problematic, because recent scientific research reveals that glyphosate so closely chemically mimics the essential amino acid, glycine, that our bodies do not differentiate between the two molecules and incorporate glyphosate into our biochemistry, interfering with brain function, causing chromosome damage, getting into the bone marrow, RNA and DNA, thus leading to unnatural genetic mutation in subsequent generations, because glyphosate is not a naturally occurring chemical and this disrupts our genetic biochemistry. And that constitutes a malicious, insidious, malevolent, damaging, biochemical hack of our genetic code.

I do not at all presume innocence on the part of Monsanto. They have many expert chemists, geneticists and biologists in their employ. If we know of this issue, then it is likely that they know at least that much, and probably a great deal more.

I am strongly inclined to suppose that Monsanto is involved in all out, a 40 year old chemical warfare against our planet's biosphere, destructively hacking the fundamental building block of all biological organisms, and your precious DNA molecule.

What's wrong with GM foods?

These crops can be found in upwards of 80% of the products in our grocery aisles. It is therefore impossible to analyse the safety of GMO technology without discussing the safety of the agricultural poisons that are the backbone of this technology.

The World Health Organization, for instance, recently designated glyphosate as a likely carcinogen. Numerous studies establish links between this toxin and mitochondrial dysfunction in humans. Mitochondria are the parts of our cells responsible for converting glucose into energy, and are involved in a range of other processes, such as cell signalling, cellular differentiation, and control of

the cell division cycle and cell growth. That's why glyphosate is associated with increased rates of cancer, Parkinson's, Alzheimer's, autism, and a host of other conditions.

Glyphosate is typically applied with other chemical additives, or adjuvants, which increase absorption and potency. The world's most used herbicide, Roundup®, combines glyphosate with a host of chemical adjuvants and a number of recent studies have clearly demonstrated that this combination is up to 125 times more damaging to human mitochondria than glyphosate alone. Another serious concern with glyphosate exposure is that it impairs the body's natural ability to remove toxins. Recent research has found that glyphosate inhibits the CYP450 enzyme, which is responsible for detoxifying foreign chemical compounds found in the body. Put another way, glyphosate actually enhances the damaging effects of other food-borne chemical residues and environmental toxins, according to one recent study, creating such conditions as gastrointestinal disorders, obesity, diabetes, heart disease, depression, autism, infertility, cancer, and Alzheimer's disease.

'Roundup® Ready' are the appropriate names given to soy and corn that was developed by Monsanto and it involves the pesticide Round Up. It is engineered right into the seeds before they are even planted. The theory they are trying to sell us - is that the use of Roundup®, will require less pesticides to be sprayed, but according to experts at Cornell University, this practice has ended up requiring a more intense use of pesticides, as the plants around the corn and soy developed greater resistance to the Roundup®.

It gets worse with GMO corn. When an insect eats GMO corn, their stomachs explode. At first, studies showed us that there was no impact on human health. Now studies reveal that tiny tears in the cells of human intestines occur when we eat GM food. The result is a rise in **leaky gut**, which leads to a rise in food allergies and autoimmune disorders.

This is terrifying stuff. The documentary 'Genetic Roulette' by Jeffrey Smith, one of the world's leading consumer advocates should make you sit up and take notice...and it will end the dispute to make you decide to never buy GMO food. They merely mention two of the 1000's of genetically modified foods being mixed into the ingredients in many foods today.

Messing With Mother Nature

The theory behind GMOs is simple. Scientists select specific genes from one organism and introduce them into another to confer a specific trait. This technology can be used to create new varieties of plants and animals more quickly than conventional methods, to create traits not possible through traditional, natural techniques.

The mad scientists behind GM foods would have you believe that their process is just like mixing red and yellow peppers' DNA to create an orange pepper, but it isn't. For example, genetic material from salmon can be injected into strawberries to make them more resistant to cold weather. That's messing with Mother Nature in a most unnatural way.

While marketers try to sell us on the concept of GMs as foods, making us believe they improve yields, are more nourishing for developing countries struggling with famine, and require less toxins to grow them, is far from truthful.

While chemical giants continue to promote these false ideas, there has been no independent proof to support their claims. There is, however, increasing concern among independent scientists about the safety of these crops and the resulting foods. The spread of pesticide resistant plants, the possible toxicity to natural habitats and the species that thrive there, and the impact on human health will persist as unanswered questions.

Who Benefits From GM Foods?

So why do these companies do this? Why take such risks with the collective health of humanity and the planet? GM crops and foods would allow chemical companies to have ultimate control over human life . . . the control of food. They have already changed the way commercial farmer's farm; this is just the next step to world domination, in the sense of food.

How Did We Get Here?

If you are fooled thinking it's just about corn and soybeans, here is the laundry list of crops now grown using GM technology: The Americans have the following foods on their table, and sadly to say, the world has no appetite for them:

Soy (94%), cotton (90%), canola (90%), sugar beets (95%), corn (88%), Hawaiian papaya (more than 50%), zucchini and yellow squash (over 24,000 acres)

Products derived from the above, including oils from all four, soy protein, soy lecithin, corn starch, corn syrup and high fructose corn syrup.

How can this be? How did these potentially disastrous organisms get into our food in such a high concentration? Public relations would have you believe that the FDA approved GM foods after rigorous testing and long-term studies. No. In fact, there are no safety testing requirements, according to their own website. The only testing done on GM foods is done by the companies themselves and they are meticulously premeditated to avoid problems. A world renowned scientist lost his job when he warned about GM foods. Dr Arpad Pusztai evoked worldwide media attention in August 1998, when he said in British TV that he would not eat genetically engineered food because of the insufficient testing procedures they have undergone. Dr Pusztai is a world renowned expert on food safety and he worked at UK's leading food safety research lab, the Rowett institute. His statement obviously threatened to damage the then ongoing multimillion PR campaign of the Biotech industry to create public confidence in GM foods. A few days after his public appearance he was suspended and gagged by the research institute where he worked.

The Obama administration was not kind to Mother Nature. In one week, his administration deregulated two very important crops that can affect our future: alfalfa and sugar beets. Deregulation of alfalfa, America's fourth largest crop and a prodigious pollinator, could spell disaster for natural crops. Used mainly in animal feed, GMO alfalfa would contaminate not only soil and crops, but the meat you eat as well. In January of 2011, this important crop was completely deregulated, meaning that there are no restrictions on the growing of GMO, Roundup Ready alfalfa by the chemical giants, and no labelling is required . . . so you, the consumer will have no idea. This deregulation also removed what are generally known as 'buffer zones,' specific spaces designed to prevent the contamination of organic alfalfa crops by GMO crops, making it virtually impossible to produce organic alfalfa. Indirectly, this means that it could become impossible to produce organic meat and dairy products since alfalfa is such a big part of their feed.

We do need GM Food Labelling

Tom Vilsack says that to regulate GMO crops would be 'burdensome' to business, but whose business? The deregulation of these crops and the resulting contamination puts an unreasonable burden on all those dedicated farmers and business people who work hard to produce and create organic foods. Don't be fooled. The biotechnology industry has declared war on the organic food industry and through shrewd lobbying has won a decisive victory . . . and will continue unopposed with the onslaught of genetically modified foods that are controlled by only a handful of multinational corporations.

Scientists who worked for the FDA came to the overwhelming consensus that GMOs were distinctly different from other crops and could lead to unpredictable and hard-to-detect toxins, allergens, new diseases, and nutritional problems. They urged their superiors to conduct longterm studies. They were ignored.

As a result, only one in four Americans knows that they have eaten or are eating GMO foods. The Campaign for Healthier Eating is committed to educating Americans about what is really in their food. One of the goals is to change the regulations so that GMO ingredients in food must be listed as such. The labelling is voluntary now.

What Can We Do To Foil This Nightmare

In 2003 Greenpeace produced a 13 page booklet listing hundreds of products to help shoppers try to avoid buying GM foods. Since then overwhelming public rejection has succeeded in forcing most of these products off supermarket shelves or the replacement of the GM components with non-GM foods.

However in recent months we have noticed a few GM products for sale in UK supermarkets. We want to develop a new list in order to help shoppers avoid these products and to help direct pressure on supermarkets to stop selling them.

If you find a product containing GM food for sale in the UK, please send the following information to <http://www.gmfreeze.org/actions/5/>

- The name of the product
- the GM ingredient(s) concerned
- the name and address of the shop where you found it
- the date you saw the item for sale
- a photograph of the label stating the GM content if at all possible
- what, if anything, the store manager has to say in response to any complaint you make

As long as some supermarkets say they are keeping an 'open mind' about GM food, we need to help them understand that their customers are still resolutely opposed.

Please take care when buying products imported from North America as we have noticed these are a source GM ingredients - when in doubt READ THE LABEL (and let us know if you find GM there).

With processed foods, there is no way to tell what GM Foods may be lurking in your food, well, food like substances. GMO ingredients are widespread and well-hidden. Genetically modified (GM) food is flooding into the UK through the back door with many consumers unaware that much of the meat and dairy products they eat may have been made from farm animals fed a diet containing GM crops. Campaigners are so alarmed that they are now calling for a mandatory labelling scheme to be introduced which would force manufacturers and retailers to identify products made from livestock fed on a GM diet.

Cash-strapped British farmers also face an unpleasant ultimatum in 2014 - accept GM or go organic. Unknown to many, about 30million tonnes of GM animal feed is thought to be imported into Europe each year to feed pigs, poultry, dairy and beef cattle, as well as farmed fish. The UK imports an estimated 140,000 tonnes of GM soya and as much as 300,000 tonnes of GM maize annually for use as animal feed.

Much of the soya and maize used is grown in South America, including Brazil, Argentina and Paraguay, where cultivation has been linked to serious environmental and human rights abuses. In the UK, foods containing GM material for human consumption are currently required by law to be labelled. However, human foods derived from GM fed animals - meat, fish, milk and dairy products - do not need to be labelled. This represents a worrying loophole which means consumers could inadvertently be eating GM products.

'It is a scandal that UK supermarkets refuse to give this information to their customers, and instead deliberately keep them in the dark, with, at best, information on their websites and confusing answers to people who call their helplines. We know that people want accurate labelling, and at the moment supermarkets are betraying their customers on this issue.' In America we have a webpage to inform us of the great conglomerates who steer their interest. www.carighttoknow.org Many people do not even know they exist. Many of those who do know they exist often have a misplaced trust in

the pseudoscience that has created these bizarre products. As I see it, one of our collective tasks is to educate our fellow citizens.

Scientists have grants to write, careers to fulfil, papers to publish, families to feed, they want to survive like anyone else, and they are human. But I fear that the system as it now exists is destroying critical inquiry, academic freedom, freedom of speech, and science itself. We need to learn from our mistakes.

The GMO seed won't solve any of our problems meaning it is likely to create more trouble than good. Why root the damn seed into Mother Earth? It sustained enough damage.

We humans are the only mammals that suffer from chronic ill health. One critic suggests it's because we are the only animals clever enough to manufacture our own food – and stupid enough to eat it.

3. ASPARTAME

Aspartame is being marketed around the world as a sugar substitute and is found in all diet soft drinks, such as Diet Coke and Diet Pepsi. It is also found in artificial sweeteners such as NutraSweet, Equal, and Spoonful; and it is used in many other products as a sugar replacement.

Aspartame is marketed as a diet product, but it is not a diet product at all. In fact, it will cause you to GAIN weight because it makes you crave carbohydrates.

Causing you to gain weight is only a very small part of what Aspartame does. Aspartame is a toxic chemical that changes the brain's chemistry. It can and does cause severe seizures. This chemical changes the dopamine level in the brain, and it is particularly deadly for anyone suffering from Parkinson's diseases.

Aspartame is extremely poisonous, and here is why. One of the toxic ingredients of Aspartame is wood alcohol. When the temperature of Aspartame exceeds 86 degrees F, the wood alcohol in the Aspartame is converted to formaldehyde, and then to formic acid, which in turn causes metabolic acidosis.

Formaldehyde is grouped in the same class of poisons as Cyanide and Arsenic – which are very deadly toxins. The only difference is... Formaldehyde kills quietly, and it takes a little longer. And, in the process of killing people, it causes all kinds of neurological problems.

There are 92 documented symptoms of Aspartame Poisoning leading to coma and death. The majority of these symptoms are neurological, because the Aspartame attacks and destroys the nervous system. Some of the symptoms of Aspartame Poisoning are covered below.

One of these symptoms is Lupus, which has become almost as rampant as Multiple Sclerosis, especially with Diet Coke and Diet Pepsi drinkers.

People who have aspartame poisoning often suffer from symptoms like breathlessness, elevated blood pressure, diarrhoea – that's always fun, right? – stomach pain, intense itching, and hives.

Aspartame is an intense sweetener, approximately 200 times sweeter than sugar, which has been used in soft drinks and other low-calorie or sugar-free foods throughout the world for more than 25 years. The aspartame issue is not new, and studies who are not funded by the aspartame industry do, indeed, show that aspartame is harmful to your health. Research as early as the 1960s has proven and documented that aspartame causes fetal deformities, that aspartame eats holes in brain tissue, and that aspartame caused the 1960 lab monkeys to all die of seizures. Publicly denying this information is valid proof that the manufacturers of aspartame are playing "games" with consumers, and manipulating the truth about aspartame's toxic effects on human health and a developing fetus is a serious matter. People usually think that aspartame is another sugar alternative approved by the FDA, and that it is safe, because if it is not so, it will not be on the market.

It insults the professionals who have been fighting this crusade for over 25 years as the slogan 'aspartame safety' is dangerously incorrect.

Suppressing the truth to the consumer about aspartame is dangerous as they are left to suffer its toxic effects with no medical support to make them better. People are waking up to the fact that aspartame is a root cause of many unresolved health issues that they, and their children, are suffering from.

I will try to list some of the important reasons that will hopefully stop you from consuming any product with aspartame or the like.

Fact 1 - Your body converts aspartame into formaldehyde.

Aspartame contains three unique compounds, and it is synergistically toxic chemical, meaning that the sum of the individual substances it contains is exponentially more toxic than just one by itself. Even isolated, phenylalanine, aspartic acid, and methanol – the three main compounds found in aspartame, are toxic in their own right. Free methanol is known to be extremely toxic. After the consumption it converts into formaldehyde, then into formic acid. Hopefully you know that methanol is not ethanol, which actually protects us against the poisoning effects of methanol.

Fact 2 – It causes obesity and metabolic syndrome

People accept artificial sweeteners as a healthier alternative to sugar, but not many know the truth – instead of helping people to lose weight, it proves the contrary as the sweeteners are the main cause for obesity and metabolic disorders, including diabetes. Moreover, many experiments have shown that even the smallest amount is dangerous, so it is best to avoid artificial sweeteners at all. In 2013, the journal *Appetite* published a study which found that aspartame is worse than regular sugar when it comes to promoting weight gain, and this is completely opposite of what consumers think when choosing a healthier sugar alternative!

Laboratory mice were fed proportional amounts of artificial sweeteners, which completely altered the composition of the digestive bacteria that helped their metabolism and made them obese. There are trillions of bacteria in every human's gut as well, each of them influencing overall health, and aspartame and the like may destroy the humans' ability to process other types of vital sugars. Elinav's study (researchers in Israel) also worked with young and healthy humans not previously ingesting artificial sweeteners, and it suggests this intake might even promote diabetes and many other ailments. Elinav, combined with the work of his colleagues, makes a compelling argument against ingesting chemicals simply because they offer zero calories to the consumer. In short artificial sweeteners used in diet drinks and other foods can disrupt healthy microbes that live in the gut, leading to higher blood sugar levels – an early sign of diabetes. The scientists ran tests on 400 people and found that those who consumed the most artificial sweeteners had different gut microbes than others, and on average were heavier and more glucose intolerant.

Fact 3 – It goes through the blood-brain barrier

Aspartame contains 40% aspartic acid. Never heard of it? It is a free-form amino acid, able to cross between the blood-brain tissues. When excess amount of this amino acid enters the body, the brain cells are overwhelmed with calcium. This results in neural cell damage or even cell death, which leads to serious brain damage. In the more severe cases, the exposure to aspartate (the other name of aspartic acid) can cause neurological conditions like Alzheimer's or epilepsy. It can also cause Multiple Sclerosis (MS) and dementia.

UK is poised to fall in line with World Health Organization recommendations to halve sugar intake to 5% of daily calories, a move expected to drive sales of diet drinks and low-calorie foods. In 2008, more than 6,000 products, consumed by over 100 million worldwide, contain aspartame that is an artificial sweetener. They are included in the following: Carbonated soft drinks, Chewable vitamins, Sugar-free cough drops, Table top sweeteners and a variety of Yogurts. We can expect them to soar.

People did report to the FDA, and there is a list with commonly associated symptoms due to aspartame consumption. There are many minor adverse reactions and life-threatening conditions.

Aspartame is the common denominator for over 92 different health symptoms at the root of modern disease. Dr. Janet Starr Hull.

So where do we begin? What are the common reported reactions to aspartame ingestion?

I will limit my discussion to an epidemiological survey which appeared in the Journal of Applied Nutrition. (Roberts 1988) 551 persons who reported their individual toxicity effects from aspartame ingestion were surveyed.

What follows is a listing of the adverse health effects. The number of people who experienced them and the total Percentage of people from the 551 persons.

Eye

- Decreased vision and/or other eye problems. 140 (25%)
- Painful eyes. 51 (9%)
- Decreased tears or trouble with contact lenses 46 (8%)
- Blindness (one or both eyes) 14 (3%)

Ear

- Tinnitus ("ringing," "buzzing") 73 (13%)
- Severe intolerance for noise. 47 (9%)
- Marked impairment of hearing. 25 (5%)

Neurologic

- Headaches 249 (45%)
- Dizziness, unsteadiness, or both 217 (39%)
- Confusion, memory loss, or both 157 (29%)
- Severe drowsiness and sleepiness 93 (17%)
- Paresthesia's like tingling or numbness of the limbs 82 (15%)
- Convulsions (grand mal epileptic attacks) 80 (15%)
- Petit mal attacks and "absences." 18 (3%)
- Severe slurring of speech. 64 (12%)
- Severe tremors. 51 (9%)
- Severe "hyperactivity" and "restless legs." 43 (8%)
- Atypical facial pain. 38 (7%)

Psychological-Psychiatric

- Severe depression. 139 (25%)
- Extreme irritability. 125 (23%)
- Severe anxiety attacks 105 (19%)
- Marked personality changes 88 (16%)
- Recent severe insomnia 76 (14%)
- Severe aggravation of phobias 41 (7%)

Chest

- Palpitations, tachycardia (rapid heart action), 88 (16%)
- Shortness of breath. 54 (10%)
- Atypical chest pain. 44 (8%)
- Hypertension 34 (6%)

Gastrointestinal

- Nausea 79 (14%)
- Diarrhoea 70 (13%)
- Associated gross blood in the stools (12)
- Abdominal pain 70 (13%)
- Pain on swallowing 28 (5%)

Skin and Allergies

- Severe itching without a rash 44 (8%)
- Severe lip and mouth reactions 29 (5%)
- Urticaria (hives) 25 (5%)
- Other eruptions 48 (9%)
- Aggravation of respiratory allergies 10 (2%)

Endocrine and Metabolic

- Problems with diabetes: loss of control; 60 (11%)
- Precipitation of clinical diabetes;
- Aggravation or simulation of diabetic complications
- Menstrual changes 45 (6%)
- Severe reduction or cessation of periods (22)
- Paradoxical weight gain 34 (5%)
- Marked weight loss 26 (6%)
- Marked thinning or loss of the hair 32 (6%)
- Aggravated hypoglycemia 25 (5%)

Other

- Frequency of voiding, dysuria 69 (13%)
- Excessive thirst 65 (12%)
- Severe joint pains 58 (11%)
- Flatulence 57 (10%)
- Fluid retention and leg swelling 20 (4%)
- Increased susceptibility to infection 7 (1%)

4. BEAUTY PRODUCTS AND THE NASTY OESTROGENS

There are some serious problems with the beauty business—and we need to educate women to get to know what's really behind the makeup they slather on their skin. We need to buy nontoxic products, as tons of beauty industries wishes to hide the true ingredients. You need a magnifying glass to find the harmful chemicals lurking inside of them. We need to take a fresh look at the cosmetics industry, and we should.

People spend fortunes on them and they have the right to know. Most are totally ignorant about the products they use. People are generally conscious when it comes to consuming— especially with regard to food. They try to eat sustainably, eating organic food. The inner surface of your gastrointestinal tract is as large as a small studio apartment, or between about 100 and 130 square feet, according to a new Swedish research team who used a special microscopic techniques to determine the size of the gastrointestinal tract, which is about 16 feet long in a normal adult, but it contains many folds and protrusions. So what about your skin?

The skin is the largest organ covering our body. If you were to tear off and spread out the average adult's skin, it would cover approximately 20 square feet. They both absorb chemicals and toxins.

An average woman absorbs almost 2 kilograms of chemicals through her skin every year.

Some of the man-made compounds have been linked to cancer, while others may irritate the skin or even cause it to age prematurely. Biochemist Richard Bence warned that the chemicals found in everyday beauty products could be doing untold damage.

Mr Bence, who has spent several years studying the ingredients in cosmetics and toiletries, said: 'There is a growing amount of research questioning the ingredients found in conventional beauty products.'

We can run campaigns condemning Johnson & Johnson for having formaldehyde in their baby shampoo and it did help, as lately they phased out the use of Formaldehyde in their shampoo. We need to target the mainstream cosmetic companies for having many unregulated chemicals in their beauty product, so we need to figure out a way to bring these issues to the consumers.

The public thinks they are educated pretty well, but believe me, they have no idea what clogs their skins.

How do we present the issues in a serious way but also not alienate people who want to engage with the beauty industry?' It's for people who want to look good, want to wear lipstick, and don't just want to go all-natural because that's not realistic for the average person. They wish to continue wearing mascara, eye shadow, perfume and body lotion, but they want to do it knowing that they are not compromising their health for the sake of looking good. It's hard to get into these serious issues, because nobody wants to alienate their readers or sponsors. People don't want to call out big companies and say, 'Why do you have parabens, phthalates, and all these weird, potentially carcinogenic and endocrine-disrupting chemicals in your products?' It doesn't need to be that way. The other huge factor is that it not only impacts their bodies, but they are impacting the planet. The same things that causes havoc with our hormones do disrupt the hormones of amphibians, as the product slowly trickle its way into our water supply and rivers.

The beauty industry, like a lot of industries, is just not regulated. We haven't had legislative action on these issues since the 1930s. We just have huge corporations, huge chemical bodies, that are able to sell these things. Of course, they say that in low doses none of this stuff is dangerous, and that may be true, but more and more research is coming out that this exposure over time—especially the things called endocrine disrupters, do disrupt our hormones and oestrogen levels. It can be really dangerous for pregnant women and their foetuses.

Ultimately, I think we would love to get involved in legislative changes and really getting companies to opt out of using certain ingredients and experimenting with alternative formulas - that are just as effective.

So, if I wanted to do an entire organic beauty overhaul, where would I start? Organic food outlets is a great place to start. They do have a lot of skincare and beauty products. It's really just a matter of doing the research and finding out what works for you, and it's also about balance. There are certain things we love, and I think it's really about compromising and not about being so extreme one way or the other. It's just about thinking before you consume, bringing to light all the deception in the industry. Let me name a few:

Micro beads

They are polyethylene microspheres that are widely used in cosmetics, skin care and personal care industries. They are commercially available in particle sizes from 10 um to 1000 um (1mm). Plastic micro beads are found in exfoliating personal care products and sadly they do pollute our waterways. Recent research published in the Marine Pollution Bulletin, a peer-reviewed journal, found high concentrations of plastics in U.S. lakes. Micro beads accounted for 90 percent of these plastics. Micro beads are designed to be small enough to wash down the drain, but they are not caught by our sewage treatment, instead they are flushed into our waterways. Sea salt and coffee grinds work just as great as an exfoliate. Same with walnut shells. We never need to flush another plastic micro bead down our drain.

Cosmetics and breast cancer

To retard microbial spoilage, cosmetics in makeup kits do contain synthetic chemical preservatives known as parabens. (methyl-, ethyl-, benzyl-, propyl-, butyl- isopropyl- or isobutyl-) Studies have shown that parabens have oestrogenic activity on breast cells. It is well known that cosmetic ingredients do enter the bloodstream through skin absorption.

- **Antiperspirants & Deodorants.** Several years ago, information was circulated on the Internet about a causal link existing between antiperspirants - deodorants and breast cancer. Immediately thereafter, spokespersons for the major breast cancer organizations with financial ties to the cosmetic industry made statements aimed at debunking that information. However, they did not, and could not cite a single published report to support their conclusion. Recent studies have shown that antiperspirants - deodorants contain paraben preservatives with oestrogenic activity. Paraben promoted the growth of breast cells to the same extent as human oestrogen. Most breast cancers do develop in the upper outer quadrant of the left breast. The question arises, why the left breast? A plausible explanation is that most women are right-handed and would, therefore, have a tendency to apply antiperspirants - deodorants more heavily in the left underarm. Note that the manufacturers may not always list a paraben preservative as one of the ingredient on an antiperspirants - deodorants product label. This ingredient could be unilaterally declared by the manufacturer as a proprietary trade secret, to be slyly hidden in the catch-all category of 'fragrances.' In such instance, the manufacturer would not be required by law to list the paraben on the product label. In addition to paraben preservatives, antiperspirants - deodorants contain proprietary ingredients known collectively as fragrances. Fragrances can consist of any of over 2,000 different chemicals, including carcinogens and other toxins, according to published reports. Parabens also are found in many other cosmetics that are in widespread use by girls and women. These include: foaming cleanser, body mist, body lotion, lipstick, body cream, facial cream, body and shower gel, skin cream, hand lotion, moisturizers, and lip gloss. These products also contain proprietary ingredients that are known oestrogen producers.
- **Perfumes.** It has been verified that there is a direct correlation between the amount and frequency of alcohol consumed and breast cancer. Most perfumes consist of about 80 per cent alcohol. We have learned from our studies that many women spray perfumes directly on their breast above the nipple, the site of a large percentage of breast cancers. Certain carcinogens combine synergistically with alcohol and enhance the risk factors for breast cancer. When perfume is sprayed or dabbed directly on the breast, some cells receive a dose of alcohol that is equivalent to ingesting over 30 glasses of table wine per day. This equivalency is increased when the woman goes to the powder room to 'freshen up' where more perfume is applied to her body. Clearly, it compounds the assault on the breast tissue in conjunction with antiperspirants - deodorants mentioned above. Perfumes also contain proprietary fragrances and other alcohols that are reported to cause breast cells to produce oestrogen in excessive amounts. Consumer magazine listed perfume and hair spray as two of several triggers for asthma. In addition to asthma, perfumes contain known neurotoxins and have a causal link to other ailments such as central nervous system disorders, allergic respiratory reactions, skin and eye irritations, double vision, sneezing, nasal congestion, sinusitis, tinnitus, ear pain, dizziness, vertigo, coughing, bronchitis, difficulty breathing, difficulty swallowing, anaphylaxis, headaches, seizures, fatigue, confusion, disorientation, incoherence, short-term memory loss, inability to concentrate, nausea, lethargy, anxiety, irritability, depression, mood swings, restlessness, rashes, hives, eczema, facial flushing, muscle and joint pain, muscle weakness, irregular heartbeat, hypertension, swollen lymph glands and more. Some fragrances are derived from the distillation of whiskeys. These whiskey fragrances are present in perfumes at concentration thousands of times greater than that in the parent whiskey. Whiskey fragrances enter the brain through inhalation or skin adsorption. Perfume aroma causes instant changes in the biochemistry of the brain at the pleasure centre. Most perfumes contain a narcotic, and studies suggested that those cosmetics have other addictive ingredients. For reason some schools, workplaces, public buildings and public facilities have adopted policies that totally ban the use of perfumes and fragranced products.
- **Hair dyes.** A study conducted by researchers for the American Cancer Society has shown a positive association between the use of black hair dyes and fatal non-Hodgkin's lymphoma and

multiple myeloma. Although some inconsistencies were seen, a metaanalysis by researchers at Johns Hopkins University showed a positive link between the use of permanent hair dyes and Hodgkin's disease, non-Hodgkin's lymphoma, unclassified lymphomas and multiple myeloma.

Our bodies are overburdened by the Excess Oestrogen

All you have to do is follow my simple plan to help purify and protect your body from these dangers. Living sensibly, taking special precautions, will make you never worry about the constant exposures threatening your health.

When you hear the word 'oestrogen,' you probably don't think of something negative. After all, women are supposed to have oestrogen. It's a critical hormone for your health. And it's what makes you a woman.

But the modern world has taken your oestrogen levels through the roof. Every day you're surrounded with oestrogen-mimickers. And there's a good chance your body could be in oestrogen overload. These synthetic concoctions get into your body and act like oestrogen and can cause side effects like hormone imbalance, mood swings, extreme emotions, fat gain, fatigue and more. Fake oestrogens are a threat and where they are. You don't see it, feel it or taste it.. but oestrogen gets into your blood every day. Many men are forced to have a breast reduction surgery, as the hormones do increase them.

Sometimes it's in the food you eat, sometimes it's in the plastic products you use. But whether you know it or not, there's a steady stream of extra oestrogen getting into your bloodstream.

For example, have you ever heard of a metalloestrogen?

Scientists have been studying the effects on human health from the accumulation of metals for over a decade now.

And what they've found is that metals like aluminium – the ingredient in common antiperspirants that keeps you from sweating – can bind to oestrogen receptors. That makes these metals – aluminium, cobalt, copper, lead, mercury, nickel, tin – that are everywhere in our environment a kind of 'oestrogen mimic.'

That means these metals bind to oestrogen receptors and take the place of real oestrogen. It tricks your body into thinking it has a lot of oestrogen... while at the same time interfering with your health. In this case, it alters your DNA and interferes with normal cell signals. No one knows how much or how little this affects you, because metalloestrogens are completely new to human evolution.

And there are many other fake oestrogens you encounter every day... Let me name a few:

- The chemicals **Bisphenol A** and **Phthalates** from plastics and other manufactured products. Ranchers in the meat and poultry industries inject their cattle and chickens with oestrogen to 'beef them up' and speed up the time before they are butchered. And every time you eat a so-called 'healthy' chicken sandwich made from these animals, you're likely getting the oestrogen that animal had before it was slaughtered. Even soy products are to blame, as any soy product that has not been fermented is extremely oestrogenic. (The fermented products like soy sauce and tofu are the exceptions.) That's just the tip of the iceberg. And the majority of these chemicals and compounds mimic the female hormone oestrogen. When these oestrogen look-alikes get into your bloodstream, they attach to oestrogen receptors and give your cells a new set of ultra-feminizing features. You see, your receptors are like 'landing pads' on the surface of your cells that receive incoming nutrients and information. And when these 'oestrogen mimics' bind with your cells' receptors, your body doesn't know it's a chemical and not the real thing. In response to these new 'messages,' your body gradually retains more oestrogen than you need. One of the first signs of excess oestrogen is increased **fat deposition in your belly**. Your body will also undergo a gradual 'softening.' First, you may develop a 'doughy' appearance as your muscle is replaced by fat. Over time, you may start to feel tired or moody. Few women who suffer from oestrogen overload realize they're being poisoned. Especially with the government insist that

adding oestrogens to our food is safe. What's worse is that your doctor knows virtually nothing about it. Chances are if you do go to your doctor, she'll probably tell you there's nothing wrong. In fact, most doctors' offices won't even test your hormone levels until you're going through menopause or have a problem having a baby.

- **Perfluorooctanoic acid (PFOA)** is another. It's used to make Teflon and Gore-Tex. The Centres for Disease Control (CDC) tested for the presence of phthalates and PFOA in the general population. The results were sobering. Every person tested – without exception – had trace amounts of both chemicals in their bloodstream.
- **The Dangers of a Plastic World.** Since you can't see, smell, or taste them, you can't tell which products contain oestrogen look-a-likes. But they are extremely common. Plastics are the worst – because they're everywhere. From plastic bags and water bottles to the packaging your food comes in – plastic is almost impossible to escape. These man-made chemicals have structures that look strikingly similar to oestrogen. Believe it or not, rising oestrogen increases fat. That's the reason why they give it to farm animals. The buildup of oestrogen in your body starts with a smooth layer of fat underneath your skin. It robs you of muscle definition. It often progresses to cellulite and excess fat in your thighs and rear. But you're not stuck with it. If you get rid of excess oestrogen rapidly, it will help you to reduce those awkward fats.

How to reduce your oestrogen levels

Levels of oestrogen have never been higher in the history of mankind than they are today. Our bodies are awash with natural oestrogen and horribly some studies associated localised oestrogen not only with female breast and ovarian cancers, but also male cancers too, like prostate cancer and testicular cancer; general cancers like melanoma, lung, colon and brain cancers. Oestrogens do cause cancer and fuel the cancer fire. If you have breast cancer, your oncologist may suggest oestrogen decreasing drugs, but rarely do doctors suggest this with other cancers. We can try to prevent it, and the simplest is to question the products we use. I want to educate people and to make them aware of vital issues. A general rule is, if you can't pronounce it, and you don't know what the heck it is, you probably shouldn't be putting it on your skin.

If you seriously want to reduce your oestrogen levels, then take the following rules to heart.

- Don't be overweight - fat levels in the body raise your oestrogen levels (in men and women).
- Go toxin-free at home - here are some suggestions: Do not put perfume or perfumed products on your skin (and that includes aftershaves and body lotions). Beware drinking liquids from plastic bottles/cups especially if hot, because of phthalate levels. Beware of eating tinned food from cans with white linings because of BPA levels. Avoid parabens where possible in toiletries. Beware of volatile carbons from ceiling and floor tile glues, or chipboard. Beware gases from common bleaches and cleaners.
- Eat more greens, like broccoli – It has been proved it does convert the aggressive form of oestrogen (oestradiol) to its safer sisters, like Sulphur. Broccoli sprouts are so easy to produce.
- Avoid hormone-laden meat. Most grocery stores now carry some form of hormone-free, antibiotic-free meat and poultry. Choose these whenever possible. You can also find a wider variety at health-food stores like Whole Foods or Trader Joe's. If you can't find hormone-free, choose the leanest cuts possible and trim any visible fat from your meat before cooking, since chemicals and hormones from the feed collect in the fat.
- Eat more oestrogen-inhibiting foods. Some of the best and tastiest sources are squash, onions, green beans, cabbage, berries, citrus, pineapples, pears, grapes, figs, melons, sesame seeds, and pumpkin seeds.
- Beware some sunscreens - ingredients like PABA, retinyl palmitate and oxybenzone have been banned or questioned already. The EU is on the case - but slowly.
- Go organic - oestrogen enhancing pesticides like DDT and Lindane are still appearing in our food chain, especially on imported foods. I wash my food with Chlorine dioxide solution.

- Take light but daily exercise - 30 minutes a day is linked to lowered oestrogen levels, lowered cancer risk and less cancer return.
- Sleep in a fully darkened room with regular sleeping times. Melatonin has been shown to balance oestrogen excesses in the body. Or consider melatonin supplementation, 3mgs maximum, or look for Asphalia a natural alternative.
- Reduce exposure to EMF's - the government is now taking EMF's seriously. They reduce your melatonin levels. Beware living near power cables; having TV's or electrical equipment round your bed; have your home tested for fault lines.
- Do not take antibiotics - do take multi-strain probiotics. Your gut bacteria have been proven to help the removal of oestrogenic compounds from the body. Try fermenting foods rich in Oestrogens.
- Avoid processed carbohydrates. Foods like bread, cereals and pasta make your body release excess insulin, which builds fat and stimulates oestrogen.
- Using simple **Sulphur**. If you seriously want to defend yourself against all forms of the toxic contaminants and wish to flush your cells of every known contaminant, then you need to learn more about organic sulphur, (MSM) and start using it daily. There is no other mineral or nutrient on the market that works this well for protecting, building and restoring health – Guarantee. The truth is if there is one nutrient you couldn't live without, it will be this one. It will drive all the excess oestrogens from your body. Organic Sulphur (MSM) has become one of the hottest selling nutritional supplements in the dietary supplement industry and more people become aware of its effectiveness. Organic Sulphur with fulvic acid helps to steer all the good minerals and nutrients into the cells that your body needs while playing an important role in eliminating all of the wastes that don't belong there. Sulphur is found in the cells of all living organisms, plants and animals we see. Sulphur plays a critical role in the oxygenation and detoxification of all cells. Simply put, the 'Sulphur Cycle' was broken over 70 years ago when farmers switched from using manure as a fertilizer to chemical based fertilizers and also began spraying the farmlands of the world with toxic pesticides and herbicides. What few knew at the time, is that these 'man-made' conglomerates aims to inhibit Sulphur in agriculture, and in the human body, to finally create global disease epidemics. The fact is almost every person breathing today is Sulphur deficient. Sulphur has 16 electrons and 16 protons, which makes it among the most reactive elements on the periodic chart. There are very few things this mineral won't combine with and or neutralize. It will not harm your body, but it will balance all the chemical reactions in your body. Sulphur makes cell membranes more porous so oxygen can flood in to finally flush out all the unwanted toxic substances. Unless you fail to take these easy precautionary measures to get all of this this filth out of your body, you will die early. That's why the use of organic Sulphur is so important. It is the single most protective nutrient there is to defend ourselves.

5. VACCINES

Vaccine is the greatest gift to humankind, or is it? We vaccinate our infants thinking we are protecting them from deadly diseases. Yet, when we vaccinate them, we weaken their immune systems. This leads to poorer health and a greater risk of contracting diseases like the sometimes deadly respiratory syncytial virus (RSV). In a very recent study, infants with severe lower respiratory tract infections are found to have a dysfunctional immune response correlating to the severity of the disease. RSV is the leading cause of lower respiratory tract infection in young children worldwide. So where does this immunosuppression come from? Injection of vaccine via unnatural routes can use up 70 percent of the immune system's resources, instead of the usual three to four percent with a wild variety disease. Because the body has no extra antibodies waiting to counter the vaccine, the immune system goes into overdrive to deal with the vaccination, leaching critical vitamins away from bones and organs for the production of more antibodies. The resulting lack of vitamins can cause

fractures, bruising and retinal bleeding and haemorrhaging, sometimes leading to an incorrectly diagnosed 'shaken baby syndrome' case.

In the first year your child will receive the following vaccinations. (NHS)

2 months

- 5-in-1 (DTaP/IPV/Hib) vaccine – this single jab contains vaccines to protect against five separate diseases: diphtheria, tetanus, whooping cough (pertussis), polio and Haemophilus influenzae type b (known as Hib – a bacterial infection that can cause severe pneumonia or meningitis in young children)
- Pneumococcal (PCV) vaccine
- Rotavirus vaccine

3 months

- 5-in-1 (DTaP/IPV/Hib) vaccine, 2nd dose
- Meningitis C
- Rotavirus vaccine, second dose

4 months

- 5-in-1 (DTaP/IPV/Hib) vaccine, 3rd dose
- Pneumococcal (PCV) vaccine, second dose

Between 12 and 13 months

- Hib/Men C booster, given as a single jab containing meningitis C (second dose) and Hib (fourth dose)
- Measles, mumps and rubella (MMR) vaccine, given as a single jab
- Pneumococcal (PCV) vaccine, third dose

If your baby is "behind" on vaccines, he or she will be eligible for the "Catch-up schedule" and will receive up to 14 vaccines all at once. This is a complex medical procedure which has never been tested for either safety or efficacy. Never tested. Not once. There are ZERO studies of the [synergistic toxicity of the concurrent shots in the] childhood vaccine schedule as it is administered.

Those vaccines are chemical stews and the main ingredients of vaccines are cultured bacteria and viruses. The bacteria are grown in a culture medium, while the viruses are grown on animal or DNA from aborted human fetuses. Animal material in vaccines includes monkey kidney cells, chicken or duck egg protein, chick embryos, pig pancreatic cells, blood from sheep or cows, and gelatine from cows and pigs. These proteins are foreign to the body, and are very toxic as they are injected directly and do not get filtered by the digestive system or pass through the liver.

Vaccines also contain stabilizers, neutralizers, carrying agents, and preservatives. These include toxic metals (e.g. mercury and aluminium) and chemicals such as formaldehyde (an embalming fluid used to kill viruses; a potential carcinogen), phenoxyethanol (a component of antifreeze), and monosodium glutamate (a mutagen and neurotoxin, added as a stabilizer). Antibiotics (e.g. neomycin, polymyxin) are added to prevent the growth of germs in vaccine cultures, but they also suppress the immune system and may trigger allergic reactions. The combined effect of injecting all of these substances at once has not been studied. It's all one great big experiment. This is the study and your child is the subject.

Pregnant women are advised to be vaccinated – ideally when they are 28-32 weeks pregnant, and also the rhogam shot given to Rh negative women during pregnancy. Even so-called "mercury free" vaccines may still have a "trace" amount; but there is no safe amount of injected mercury. It is known as **Thimerosal** - A methyl mercury compound that causes severe, permanent nervous system damage. Mercury is highly toxic to the brain. You should never touch, swallow or inject mercury at any dose. There is no safe dose of mercury! Doctors and vaccine pushers lie to you and say there is no mercury in vaccines. Even the CDC readily admits vaccine still contain mercury (thimerosal).

*<https://www.youtube.com/watch?v=xf6uCW2ztxw> Foetuses and young children suffer the greatest

risk because their nervous systems are still developing. They are four to five times more sensitive to mercury than adults. Mercury from flu shots taken while pregnant will cross the blood-placental barrier. Neither is there any safe amount of injected aluminium, but it is also added to vaccines and is highly reactive with mercury. A study in the Journal of Inorganic Biochemistry study showed that mice receiving an aluminium adjuvanted vaccine showed significant motor neuron death (brain damage) and other neurologic damage. Adjuvants may be added to vaccine to modify the immune response. It elicits more antibodies and a longer lasting protection. People at 55 years of age who receive the flu vaccine each year for 5 years in a row increase their risk of developing Alzheimer's disease a whopping 1,000%!

Vaccines contain surfactants such as Triton-X100 (octoxynol-10) and Polysorbate 80 (Tween) which enable the other toxic ingredients to cross the blood-brain barrier, or the blood-placental barrier, or even into the central nervous system, which can cause polio-like symptoms, or death, as in the cases of SIDS where infant's breathing muscles are paralyzed. They also can render your child sterile for life, especially when combined with the adjuvant Squalene. Squalene is present in the form of an emulsion and is added to make the vaccine more immunogenic, or to elicit a greater immune response. Vaccine makers surely know that vaccines impair fertility but they try to maintain plausible deniability by adding this to package inserts.

The MMR and other vaccines are cultured on **human diploid cells** which is tissue and organs of aborted fetuses, and DNA from those fetuses has been found in the final product. This can cause autoimmunity where your immune system destroys your own cells, including brain cells. Other remnants of the manufacturing process remain as well, including unknown life **viruses** which are not inactivated. Vaccines are not a vegan product, as animals are sacrificed to grow vaccine viruses on their organs. Two other highly toxic vaccine ingredients are **beta-propiolactone** and **phenol**. Note that injections of phenol were used as a means of individual execution by the Nazis during the Second World War.

Vaccine proponents say that **formaldehyde** is not harmful, and is in fact 'natural.' In fact it is a chemical used to preserve cadavers. It's highly toxic to the nervous system, causing blindness, brain damage and seizures. The U.S. Department of Health and Human Services openly admits that formaldehyde causes cancer. However they ignore the fact that it is a known human carcinogen and that the liquid version (formalin) is stabilized with methanol, which is also toxic. Ingestion of as little as 30 mL of a solution containing 37% formaldehyde has been reported to cause instant death and multiple organ failure in an adult.

Parents and carers worldwide are being accused of harming or killing their children when they show the **SBS triad** (shaken baby syndrome) shortly after a vaccination. An alarming number of post vaccination adverse events are automatically assumed by medical and law enforcement professionals to occur because caregivers shake their babies so hard that they cause SBS, defined by a triad of serious brain injuries:

- Retinal haemorrhages,
- Subdural haemorrhages
- Encephalopathy

Strangely, the medical professionals dismiss adverse reactions to recently administered vaccinations, while parents and carers are automatically assumed to be guilty of horrendous abuse, including the murder of the young children. However, if children are shaken so violently that it causes them to suffer from these extensive brain and retinal injuries, why don't they suffer from other expected external injuries that should also occur as a result of such a violent assault? We need to ask ourselves, whether just shaking alone can cause these injuries, or are there alternative explanations as to why these injuries occur? Presently over 3,000 parents or caregivers in the USA are in jail

"Vaccine induced nosebleeds: It could be a condition called immune thrombocytopenic purpura or ITP. Guess what caused 80% of hospital ITP admissions in one study? The deadly MMR vaccine in two year olds and under. ITP is caused by the hepatitis A injection along with the chickenpox shots. If

your child gets a shot and then starts having chronic nosebleeds a few days or weeks or even months later, they might also be bleeding in the brain or other places you don't want to know. Research shows that most cases seem to come on in the 6-week period after a patient receives the Measles Mumps Rubella vaccine. However, MMR may not be the only vaccine to trigger ITP. If you received any type of vaccination in the weeks or months before the onset of immune Thrombocytopenia Purpura, it could have been triggered by that vaccine.

They maintain vaccines does NOT cause **autism**, but often, the vaccine package insert lists autism as a reported adverse reaction. Many adverse effects reported including ITP, SIDS, anaphylactic reaction, cellulitis, autism, convulsion/grand mal, encephalopathy, hypotonia, neuropathy, somnolence and apnoea." So, perhaps doctors and nurses should read the package inserts. There are 22 Medical studies that show vaccines can cause Autism.

- Thimerosal in Vaccines increases neurologic disorders. * PhD Scientist and Biochemist Reveals Hidden CDC Documents.
- Vaccination, particularly for pertussis, has been implicated as a direct cause of an encephalopathy with refractory seizures and intellectual impairment. *Lancet Neurology 2006;5:488-492.
- There is a great deal of evidence to prove that immunization of children does more harm than good. *Dr. J. Anthony Morris, former Chief Vaccine Control Officer and Research Virologist, U.S. FDA

Deaths from vaccination are hidden by using labels such as SIDS (sudden infant death syndrome) or "unknown causes". The truth is, vaccines are causing more death and permanent disability than the diseases they are purported to prevent. Including autism. And what may be even more shocking is that vaccines simply don't work. Vaccines don't offer any protection from disease, but often spread it. But now, when a child is vaccinated for polio it gets polio-like symptoms, doctors insist it couldn't be polio (after all, the child was vaccinated!) and instead call it 'Acute Flaccid Paralysis, Transverse Myelitis or Guillian Barre Syndrome.

Aluminium is know to cause brain damage, so why inject it into your infant? It is a light metal that causes dementia and Alzheimer's disease. Aluminium hydroxide is used in vaccines to increase the body's production of antibodies, though no one knows how it works. *Purdue researcher Stanley Hem, professor of industrial and physical pharmacy. The average aluminium content per vaccine ranges between 200 to 400 mcg, but if your child receives multiple vaccines at one time, which is common, the dose will rise much higher. Based on the number of vaccines given, children today are receiving 11 shots that contain aluminium, compared to four vaccines in the 1970s into the mid-80s. Based on FDA toxicity thresholds, a 6 kg. baby could not handle more than 22 - 28 mcg of aluminium. The average babies weigh is 6kg at 4 months of age, and by then they are injected $8 \times 300 = 2400$ mcg of aluminium in their vaccines. Hi what about the 22 – 28 mcg? exceeding the toxicity threshold. *Craig Stellpflug is a Cancer Nutrition Specialist

Our research has focused on the effect of vaccines on insulin dependent **diabetes**, an autoimmune disease. We found that the incidence of diabetes rose 60% in New Zealand following a massive hepatitis B immunization program. The CDC initiated a study to verify our findings. Their preliminary data has been published and shows hepatitis B immunization when given starting after 8 weeks of age is associated with a 90% increase in the risk of diabetes, supporting our findings. *J Barthelow Classen, MD

There has never been a single vaccine in this country that has ever been submitted to a controlled scientific study. They never took a group of 100 people who were candidates for a vaccine, gave 50 of them a vaccine and left the other 50 alone, and measured the outcome. And since that has never been done, that means if you want to be kind, you will call vaccines an unproven remedy. If you want to be accurate, you'll call the people who give vaccines quacks. *Robert S. Mendelsohn, M.D.

Monosodium Glutamate (MSG) - A neurotoxic chemical called an "excitotoxin." It causes brain neurons to be overexcited to the point of death. MSG is toxic even when consumed in foods, where

it causes migraine headaches and endocrine system damage. You should NEVER inject MSG into your body. But that's what health workers do when they inject you with vaccines.

Now, consider this: The most common side effect of a vaccine injection is a **headache**. The CDC admits that over 30 percent of those receiving vaccines experience headaches or migraines. Think about this one - what could possibly be in vaccines that would cause headaches, migraines and brain damage? Ever thought of mercury, formaldehyde, aluminium and the MSG!

Even if you believe in the theory of vaccines as a helpful way to train the immune system to recognize pathogens, why would anyone -- especially a doctor -- think it's okay to inject human beings with mercury, MSG, formaldehyde and aluminium?

The argument of the vaccine pushers is that each vaccine only contains a tiny dose of these highly toxic substances, and therefore it's okay to be injected with them. But this argument makes a fatal error: The number of vaccine shots given to children under 5 in the UK has risen from 16 in the 1980s to 32 in 2006, with 24 being given before the 15th month. This reflects an increase in both the number of different vaccines and the number of doses needed to provide 'protection'. A survey in 2003 revealed that a third of UK doctors felt that babies were receiving too many vaccinations – and they're now receiving even more. More new vaccines are under development: e.g. for rotavirus diarrhoea, sexually transmitted disease, cancer, malaria, birth control, cocaine addiction, and tooth decay. The increase in the total number of jabs increases the risk of side-effects, especially since vaccines are increasingly being administered in combinations or simultaneously, despite growing evidence that they may interact in ways that increase the risk of side-effects. Also noteworthy is that whereas most drugs are given in a dose proportional to a child's weight, the same strength of vaccine is given to all children. What's the effect of injected mercury on an immune-suppressed child living in a state of chronic nutritional deficiency?

Scientists don't know that answer because such studies have never been conducted. So they pretend that nothing bad will happen and keep pushing more and more vaccines on infants, children and even expectant mothers. They're playing Russian roulette with our children, in other words, where every injection could cause a seizure, coma, autism or death.

Why doesn't the vaccine industry offer "clean" vaccines free from all toxic additives?

If vaccines are supposed to be good for you, why do they contain so many additives that are BAD for you? You wouldn't want to eat mercury in your tuna fish. You wouldn't want MSG in your sandwich, and you certainly wouldn't want formaldehyde in your soda. So why would you allow yourself to be injected with these deadly substances?

Absurdly, the vaccine industry says these toxic ingredients are intentionally added to vaccines to make them work better! Yes, that's the reason: Mercury makes vaccines work better, they insist. Click here to see a video news report actually claiming mercury makes vaccines work better, granting children 'improved behaviour and mental performance.' *<https://www.youtube.com/watch?v=WujHCWE-hOc>

v=WujHCWE-hOc

Nearly all vaccines for the masses are deliberately formulated with neurotoxic chemicals that have absolutely nothing to do with the science of vaccinations, but everything to do with autism, Alzheimer's disease, early-onset dementia, immune suppression, and the mass dumbing down of brain function. Vaccines are designed with chemical additives to poison the population, not to protect the population. It is to inject the masses with a toxic cocktail of chemicals that cause brain damage and infertility: Mercury, MSG, formaldehyde and aluminium. The whole point of this is to dumb the population down so that nobody has the presence of mind to wake up and start thinking for themselves.

While our government continues to resist doing a true study on vaccinated vs. unvaccinated children or adults, stating that such a study would be “unethical”, researchers in Hong Kong have conducted a true vaccinated vs. unvaccinated study on the influenza vaccine. This is probably one of the few, if not only, true study conducted in recent times where a real placebo was actually used and compared to the vaccine. The results are quite remarkable, suggesting that it is unethical not to pursue more studies comparing vaccinated and unvaccinated populations. People receiving the flu vaccine suffered from other respiratory infections at a rate 5.5 times more than the placebo group! Would you be interested in a vaccination that results in more than 5 times as much illness? If you take the seasonal influenza vaccination, that’s what you’re doing. The seasonal trivalent flu vaccine results in 5.5 times more incidents of respiratory illness, according to a study published in *Clinical Infectious Diseases*.³ Subjects were followed for an average of 272 days. The active influenza vaccine administered was Sanofi Pasteur’s Vaxigrip. The trial included children aged 6-15 years. 69 were given Vaxigrip and 46 received the saline placebo.

A shocking new science study funded by the Alberta Ministry of Health and published in the *VACCINE* science journal has found that nearly 10 percent of Canadian females end up in emergency rooms (the “Emergency Department” in Canadian vernacular) following **HPV vaccine** injections. Even more shockingly, vaccine researchers funded by the Alberta Ministry of Health declare this 10% emergency room visitation rate to be ‘low’ and ‘consistent with those seen elsewhere with vaccines.’ A shocking admission unveils a highly disturbing truth about routine vaccinations given to children and teens are well known to cause emergency room visits, hospitalizations and adverse effects among those receiving them. This science paper, in fact, just confirmed all that while calling the entire phenomenon safe.

In the study, authored by Xianfang C. Liu and others, 195,270 females received one or more HPV vaccine injections and were monitored for 42 days.

As the study clearly states in its results, of the women who received HPV vaccine 958 were hospitalized and 19,351 had an [Emergency Department] visit within 42 days of immunization.” That’s 9.9% of the females receiving the injections. Not only were 19,351 sent to emergency rooms, 958 of the females were hospitalized, meaning they endured overnight stays at the hospital to treat some serious condition. That comes to about 1 out of every 200 persons receiving the vaccine injection.

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6. **SUGAR** and our immune system

Everyone needs to evaluate their sugar consumption. Sugar is known to suppress the immune system, it messes up your digestive system and cause a long list of side effects that are harsh enough to cause havoc all over your body. If you have an immune disorder sugar becomes even more of a problem. In the book ‘Get The Sugar Out’ by Ann Louise Gittleman, who holds a master's degree in nutrition education from Columbia University. She is a certified nutrition specialist saying no matter what form it takes, sugar paralyzes the immune system in a variety of ways.

- Sugar has been proven to destroy the germ-killing ability of white blood cells for up to five hours after ingestion. It reduces the production of antibodies, proteins that combine with and inactivate foreign invaders in the body.
- It interferes with the transport of vitamin C, one of the most important nutrients for all facets of immune function.
- It causes mineral imbalances and sometimes allergic reactions, both of which weaken the immune system.
- It neutralizes the action of essential fatty acids, thus making cells more permeable to invasion by allergens and microorganisms.

Sugar is found in most plants, but especially in sugarcane and beets. In a culture where sweets are an important part of any social occasion, the consumption of processed food like colas, chips and chocolates are going vertical yearly. The advent of fast foods and processed items haven't helped. Pickles, chutneys, sauces and salty snacks contain indecent amounts of sugar. Unregulated sugar intake can wreak havoc on the body.

- Sugar is so **addictive** that recently French scientists in Bordeaux reported that cocaine-addicted rats chose sugar over the drug, leading to the conclusion that the intense stimulation of sweet receptors in sugar-rich diets generates reward signals in the brain causing our self-control mechanisms to trip, thus leading to addiction. It is a self-defeating vicious cycle: a sudden intake of sugar—a chocolate pastry for example—causes insulin levels to rise dramatically. The insulin rids the body of the sugar in the pastry, but blood sugar dips thanks to the high levels of the insulin left in the bloodstream, which leads to more intake of sugar heavy foods.

- The overload of sugar causes the liver to unload more **bad cholesterol** into the bloodstream, which the body cannot evacuate. The effect of fructose and excess sugar also has long lasting psychological effects. Fructose, the sweetest of all naturally occurring carbohydrates derived from plants is the main culprit. Studies say that its metabolic effects are similar to that of alcohol, depending only on the liver. Since the body doesn't process ingested fructose completely, it could cause triglycerides deposits to rise. The World Health Organization has halved its recommended sugar intake for adults, from 10 per cent of total daily calories to 5 per cent—around 25 grams, or 6 teaspoons, per day for adults.

- The effects of long term consumption of sugar is a natural encourager of **diabetes**: studies reveal that for every extra 150 calories gained from sugar by a person daily, the possibility of diabetes rises by 1.1 per cent. Added sugars generate excess insulin in the bloodstream, which abnormally accelerates the growth of the smooth muscle cells around each blood vessel, in turn causing tense artery walls that may generate high blood pressure, increasing the chances of a stroke or a heart attack. Alzheimer's is a metabolic disease caused by damage to the brain's ability to employ glucose to produce energy.

- The link between sugar and **obesity** has been established—excess sugar consumption disconnects the body's messages to the brain to fire up leptin hormones, which signal one to stop eating. A high-fructose diet fuels hunger, even when the person is overeating.

- Sugar turns your smile upside down. We might reach for sugar to feel better, but we're getting the opposite effect in the end. A study published in Public Health Journal followed nearly 9,000 people to study the link between **depression** and eating sugary sweets and fast food. After six years, those who ate the most junk faced a nearly 40% greater risk of developing depression, compared to those who shunned junk food the most. In people with insulin resistance, it appears the brain releases lower levels of feel-good dopamine.

- Sugar wrecks your face. Sugar in your bloodstream attaches to proteins to form harmful new molecules called advanced glycation end products, or AGEs. These unwanted invaders attack nearby proteins, damaging them, including protein fibres in collagen and elastin, the components that keep your skin firm and elastic. The result of too much sugar? Dry, brittle protein fibres that lead to **wrinkles** and saggy skin. AGEs fuel the growth of fragile collagen and switches off the body's natural

antioxidant mechanisms, leaving the skin vulnerable to sun damage. So, instead of going under the knife, a sugar de-addiction could be the solution.

- Sugar also promotes the growth of yeast through fermentation. Hence yeast infections such as oral thrush are caused when the bacteria **Candida**, that exist naturally in the body— but controlled by the immune system— breaks out when blood sugar is high, in turn making saliva and urine its breeding grounds.

- Though researchers are yet to link **cancer** with sugar, it has been established that cancer cells feed on sugar in the body to grow and multiply. Because of the high glycolytic rate of malignant tissue, the whole-body PET scan is accurate to detect a wide variety of both primary and metastatic malignancies. The radioactive glucose is sucked into the cancerous cells making them more apparent.

The hidden culprits

Beet sugar is mostly genetically modified.

Rice syrup which is found in cereal bars and organic food because it introduces inorganic arsenic in the food.

Brown sugar is just as bad as white

Cane juice sugar found in baked goods is no different from refined sugar

Cane juice has high sugar content and is mostly swarming with bacteria.

Cane sugar causes BP and cholesterol to rise adding to insulin resistance.

Date sugar is less harmful than sugar but every 7 gram date holds 5 grams of sugar.

Caramel is high in carbs and calories.

Caster sugar used in baking and mixed drinks is only sugar in a finer form.

Coconut sugar found in diabetic sweeteners is high in calories and low in nutrients.

Corn sweetener found in cough syrups and antacids.

Corn syrups and solids found in sodas, fast food and coffee creamers are high in carbs

Crystalline fructose found in ice cream and fruit flavors lead to high fat content in the blood and liver disease

High Fructose Corn Syrup This highly refined artificial sweetener is found in almost all processed foods. It packs on the pounds faster than any other ingredient, increases your LDL (bad) cholesterol levels and contributes to diabetes and tissue damage.

Monosodium Glutamate An amino acid used as a flavor enhancer in soups, salads, dressings, chips, frozen entrees and many restaurant dishes. It is an excitotoxin—a substance which overexcites cells to the point of damage or even causing death. Studies show that regular consumption may result in depression, disorientation, eye damage, fatigue, headaches and obesity. They are found in Chinese food, chips, cookies, seasonings, most Campbell Soup products, frozen dinners, luncheon meats.

Are you a COKE addict?

Why soda is bad for you

A London-based cardiologist Aseem Malhotra's campaign 'Action on Sugar' is aimed at exposing the dangers in added sugar in foodstuffs. Social media campaigns are adding to the fizz—a video of a man pouring and drinking a glass of fat from a soda can, did get much attention.

<https://www.youtube.com/user/drlapuma> Robert Lustig, professor of paediatric endocrinology at the University of California is the leading light of the anti-sugar movement. Posted on YouTube in 2009, his anti-sugar talk and he is credited to have created the Anti-Sugar Movement—a campaign that seeks for sugar to be treated as a toxin like alcohol and tobacco. Experts have calculated that reducing sugar in processed foods between 20 and 30 per cent over the next three to five years would remove 100 calories a day from diets, enough to halt or reverse the obesity epidemic.

A recent study done by the American Journal of Public Health claimed that drinking soda would age you as much as smoking does. While this theory has been somewhat debunked, a couple conversations with nutrition experts around the area have given us some information on why soda is actually bad for you, even if it's not as bad as smoking.

- Addictive - The one thing that Sarah Easlick, assistant director of food/nutrition and clinical nutrition manager for McLaren Flint said might cause a relation between cigarettes and soda is the addiction aspect of the two. Like the cigarette, many people are 'addicted' to their pop of choice.
- Empty Calories - The obvious negative health benefit would be the increased calories that these beverages provide, said Easlick. Soda is full of simple sugar calories and it does not provide vitamins, minerals or protein. That makes it a source of empty calories.
- Caries - Another issue that many people also do not think about is the effect of the sugar on their teeth, said Easlick. Most people do not brush their teeth after drinking a pop and so the acid and acid sugar byproduct residue is in your mouth working on breaking down the enamel on your teeth. It's not just the sugar in soda that is bad for your teeth. Even diet soda is acidic, and according to a blog on Linden area dentist Dr. Patricia McGarry's website, the acids in all sodas erode teeth. In fact, she compared it to bathing your teeth in battery acid.
- Obesity - According to information on WebMD, both diet and regular soda cause a risk of obesity. That means that switching to diet soda to lose weight isn't the answer.
- Caffeine - Easlick also pointed out the effects of caffeine in soda. Caffeine is an addictive substance. "Intake of caffeine contributes to sleep deprivation. Sleep deprivation is linked to obesity. It is a vicious cycle," she said.
- Fructose - Marjie Andrejciw from Marjie's Gluten-Free Pantry also pointed out one of the troublesome ingredients in soda. Sweetened pop contains high fructose corn syrup Sweetened pop contains traces of mercury which is a heavy metal," Andrejciw said. The fructose syrup really wreaks havoc with your blood sugar levels because it is such a simple sugar (just fructose) that it 'burns' (is metabolized really fast) and causes oxidative stress (think free radicals) which age us. She also pointed out that high fructose corn syrup draws the nutrients from your body, which can age you prematurely.

What happens once you drink sweetened soda

- Within the first 10 minutes, the 10 teaspoons of sugar hit your system. This is 100% of your recommended daily intake, and the only reason you don't vomit because of the overwhelming sweetness is that phosphoric acid cuts the flavour. Dextrose/fructose/phosphoric acid solution is an antiemetic combination. It is not known exactly how dextrose/fructose/phosphoric acid solution works. It is also known as Emetrol, a potent antiemetic drug.
- Within 20 minutes, your blood sugar spikes, and your liver responds to the resulting insulin burst by turning massive amounts of sugar into fat.
- Within 40 minutes, caffeine absorption is complete; your pupils dilate, your blood pressure rises, and your liver dumps more sugar into your bloodstream.
- Around 45 minutes, your body increases dopamine production, which stimulates the pleasure centre's of your brain — a physically identical response to that of heroin.
- After 60 minutes, you'll start to have a sugar crash.

Chronic effects sweetened soda

- Mood: Four or more cans of diet soda a day make you 30 percent more likely to develop depression.
- Teeth: Three or more diet sodas a day raises your risk of tooth decay.
- Heart: A daily diet soda increases heart attack risk by 43%.
- Metabolic Syndrome: Consumption of daily diet soda raises the risk of metabolic syndrome by 36%, which increases the risk for coronary artery disease, stroke and type 2 diabetes.
- Kidneys: Drinking just two diet sodas a day doubles your risk of kidney disease, in women.
- Weight: Every daily serving of diet soda increases your risk of obesity by 41%
- Diabetes: Just one diet soda a day increases the risk of type 2 diabetes by 67%

Stevia ?

After years of research and testing, scientists think they've found a natural sugar substitute that has zero calories, zero carbohydrates and won't raise blood sugar levels. The 'miracle' ingredient, stevia, is between 250 and 300 times sweeter than sugar, and so by adding it to foods and drinks, manufacturers can drastically reduce the calorie content. So could stevia be the answer? Extracted from the leaves of the stevia plant, native to Paraguay, it has been used as a sweetener for 40 years in Japan and longer in South America, although it was approved for use in the EU only in 2011. Its drawback is that some extracts have been found to have a bitter, liquorice-like aftertaste.

The World Health Organisation called for people to halve the amount of added sugar in their diet. Sugar substitute: Sales of honey, maple syrup and agave syrup have soared. The concern is that excess sugar in the diet is stored as fat. The solution would be to see a simple switch to sugar alternatives.

And many people are using honey, in the belief they are healthier. Sales of honey, maple syrup and agave syrup (made from the naturally sweet water in the agave plant) have soared. People like them because they're natural, but whether there's any benefit is debatable. Sugar, after all, is a natural plant product.'

However, experts unanimously agree these natural sugars are no better for us than regular sugar. They contain very slightly fewer calories, about three per gram compared with four per gram in sugar,' says Bridget Benelam, a scientist at the British Nutrition Foundation.

Naveed Sattar, professor of metabolic medicine at the University of Glasgow and a leading diabetes researcher, says: 'Sugar is sugar and a calorie is a calorie — whether it comes in the form of honey, agave syrup or white sugar, the body will process it in exactly the same way.'

It's been pointed out that while regular sugar, honey and maple syrup are made up equally of glucose and fructose, agave syrup is much higher in fructose — and when fructose is metabolized it doesn't cause an increase in insulin levels. Instead, it's taken into the liver, where it is metabolized.

Sugar Alcohols - Xylitol

Sugar alcohols such as xylitol are not as sweet as sugar, but they contain fewer calories. One reason that sugar alcohols provide fewer calories than sugar is that they are not completely absorbed into your body. Because of this, eating many foods containing sugar alcohols can lead to abdominal gas and diarrhoea. Xylitol do not make 'sugar-free' foods calorie-free. If foods containing sugar alcohols are eaten in large enough quantities, the calories can be comparable to sugar-containing foods. As with all foods, you need to carefully read the food labels for calorie and carbohydrate content, regardless of any claims that the food is sugar-free or low-sugar.

Maltitol, another commonly used sugar alcohol, spikes blood sugar almost as much as a starchy new potato. Xylitol, in comparison, does not spike blood sugar much at all. Pure xylitol also does not usually produce the gas or bloating associated with other sugar alcohols.

So in moderation, some sugar alcohols can be a better choice than highly refined sugar, artificial sweeteners, agave, or high fructose corn syrup. Of the various sugar alcohols, xylitol is one of the best. When it is pure, the potential side effects are minimal, and it actually comes with some benefits such as fighting tooth decay. All in all, I would say that xylitol is reasonably safe, and potentially even a mildly beneficial sweetener. Remember, xylitol is toxic to dogs and some other pets, so be sure to keep it out of reach of your family pets.

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7. TRANSFATS

The Fats are specially Engineered to Kill You

Fred Kummerow made a lifetime study of trans-fats. As a nutritional scientist in 1957, at the University of Illinois, he persuaded a hospital to give him samples of arteries from patients who had died of heart attacks. When he analysed them, he made a startling discovery, amazed that the diseased arteries were filled with trans-fats, which come from the hydrogen-treated oils used in processed foods like margarine. It crowded out the other types of fatty acids. He continued his studies and found troubling amounts of artery-clogging plaque in pigs given a diet heavy in artificial fats. He became a pioneer of trans-fat research, one of the first scientists to assert a link between heart disease and processed foods. It would be more 30 years before those findings were widely accepted — and 50 years before the Food and Drug Administration decided that trans-fats should be eliminated from the food supply.

An excess of polyunsaturated vegetable oils like soybean, corn and sunflower, can be singled out as responsible for atherosclerosis, or the hardening of the arteries: Yes it is the types of fats we were urged to consume for the past several decades.

The problem, he says, is not LDL, the “bad cholesterol” widely considered to be the major cause of heart disease. What matters is whether the cholesterol and fat residing in those LDL particles have been oxidized. Technically speaking LDL is not cholesterol, but floating particles of cholesterol, fatty acids and protein.

Cholesterol has nothing to do with heart disease, except if it's oxidized. The high temperatures used in commercial frying cause inherently unstable polyunsaturated oils to oxidize, and that these oxidized fatty acids become a destructive part of LDL particles. Even when not oxidized by frying, soybean and corn oils can oxidize inside the body.

If that is true, then it might explain why studies have found that half of all heart disease patients have normal or low levels of LDL. We can have fine levels of LDL and still be in trouble if a lot of that LDL is oxidized. That leads us to a controversial conclusion that the saturated fat in butter, cheese and meats, do not contribute to the clogging of arteries — and in fact is beneficial in moderate amounts in the context of a healthy diet with lots of fruits, vegetables, and unprocessed foods. Eggs are one of nature's most perfect foods. Eggs have all of the 9 amino acids you need to build cells, plus important vitamins and minerals. It's crazy to just eat egg whites.

A 1993 finding from that study, which showed a direct link between the consumption of foods containing trans-fats and heart disease in women, was a turning point in scientific and medical thinking about trans-fats.

The problem for British consumers is that trans-fats don't have to be listed on ingredient labels, so it's difficult to know which foods contain them. Little wonder they've become known as 'stealth fats'. The only way of finding out if a food contains trans-fats is to look out for 'hydrogenated vegetable oil', 'hydrogenated fat' or 'partially hydrogenated vegetable oil (or fat)'.

‘Trans-fats are a by-product of the hydrogenation process,’ says Dr Lunn. ‘So if a product contains hydrogenated fats or oils, it will also contain trans-fats. The higher hydrogenated fats and oils sit on the ingredients list, the more trans-fats are likely to be in the product.’

Trans-fats turn up in many heavily processed foods, commercial baked goods and confectionery. There are some notable exceptions, however: crisps and salad dressings generally are not made with partially hydrogenated oil. Trans-fats are actually in a class of their own when it comes to form, function, and effect on the human body, and this class is definitely not a positive one. Trans-fats, it turns out, take the place of healthy saturated fats throughout the body and effectively block things like nutrient absorption, waste elimination, and immune function - this is why they are so uniquely dangerous for your health.

Though chemically identical to saturated fats, according to GreenMedInfo.com, trans-fats are inherently malformed and unnatural. They are created by essentially forcing hydrogen molecules through fats at high heat, a process more commonly known as hydrogenation. This process makes fats more stable, which in turn prevents them from going rancid quickly, but it also reshapes fats, altering them from a bended and looser shape to a straight and more rigid shape. The alteration of fats in this way renders them poisonous to the body and a major cause of chronic illness.

When you ingest trans-fats, these mutant substances basically replace the healthy saturated fats naturally found in your cell walls -- this, again, is due to the fact that they have a similar molecular structure. But trans-fats are far less permeable than saturated fats, and they do not interact with other molecules in the same way that saturated fats do, which can severely alter normal bodily function. In essence, your cells require saturated fats in order to communicate with each other and maintain homeostasis - but when trans-fats come into the picture, everything is thrown off kilter.

‘Because trans-fats are more stable chemically - the direct result of the hydrogen atoms being on opposite side of the molecule - they do not interact properly with other molecules,’ explains Heidi Stevenson from GreenMedInfo.com. ‘The cell wall itself is not as tightly bound as it should be, making it weak and more permeable than normal. Thus, molecules of toxins that would have been too large to enter a cell may now be able to squeeze through the cell wall and wreak havoc inside.’

Trans-fats suppress hormone production, damage adrenal glands

Cell communication is another major bodily function affected by trans-fats. In order for your body to produce hormones like adrenaline, for instance, which regulates your ‘fight-or-flight’ response to stress and emergency situations, your cells need healthy amounts of saturated fats in order to send stress hormone signals. When cells are not able to do this effectively as a result of trans-fats, however, the body ends up pushing the adrenal glands to work harder than normal, which can lead to adrenal fatigue and eventually thyroid dysfunction.

‘Trans-fats are less chemically active, so the proper signal exchanges cannot be made and normal cell communication cannot occur. Trans-fats are also shaped differently, so molecules can be stuck either inside or outside the cells. When trans-fats replace saturated ones, critical nutrients may not be able to enter cells and toxins may not be able to exit. The result is a deranged metabolism, which affects every aspect of health.’

Here is a list of 10 foods with Trans-fats to avoid:

- **French Fries:** When hydrogen meets vegetable oil, the outcome is ‘trans-fat’. French fries are often fried in hydrogenated oil and account for a high trans-fat content.
- **Margarine:** Once considered to be the healthier alternative, most margarines are considered to be high in trans-fat. In order to keep this vegetable oil-based product firm, the services of hydrogenated oil is called upon. Healthier alternatives are fat-free spread or whipped butter with a light application.
- **Non-dairy creamers:** Contain a small amount of trans-fat. While the amount may seem negligible, if you routinely make your coffee with it, the numbers will creep up.
- **Microwave popcorn:** This healthy snack turns unhealthy if made in the microwave. The buttery toppings account for 5 grams of trans-fat per serving.
- **Frozen dinners:** Often loaded with trans-fat, after all, the food is not self-stabilizing and the fatty mouth feel has to come from somewhere.
- **Fried foods**—although some fast food restaurants have switched to non-hydrogenated oils, there are still some that use it to prepare some favourite items such as: Donuts, French fries, fried chicken and fish.
- **Frozen pies, pizzas and dinners**—these may be convenient, but are loaded with trans-fats.

- **Canned soup**—consumers may be surprised to learn that a number of soups have trans-fats. Campbell's soups are one that consumers should check the labels carefully.
- **Twinkies, packaged cookies and snacks**—Twinkies, so popular and so unhealthy. So many consumers were happy to see the return of the Twinkie, but there is a reason it has a shelf life of 25 days. Its creamy centre is basically a chemical mess of sugar and partially hydrogenated vegetable shortening. Packaged cookies and snacks usually contain partially hydrogenated oils.
- **Coffee creamer**—Surprising to some, but coffee creamer does contain some dairy product so consumers need to check labels to see which creamers have eliminated the trans-fats.

Do you trust Margarine?

Today, the production of margarine is an unsavoury process which uses several toxic chemicals. Here's an overview of the steps involved:

- Vegetable oil is made from oil seeds such as soybeans, corn, cottonseed or canola. You guessed it - GMO
- The seeds are cleaned and crushed and the oil is extracted by applying high temperatures and pressure.
- Since heat and light accelerate the rate of the reaction between polyunsaturated oils and oxygen, this extraction process causes the oils to become rancid, producing unpleasant and noxious odours and flavours.
- Any oil left in the seed pulp is removed with noxious solvents such as hexane, a known neurotoxin.
- The crude oil is then degummed with acid to remove other impurities, and a caustic soda is added to remove the degumming acids.
- The resulting grey and smelly oil is bleached and filtered.
- The rancid smells are removed through a high temperature steam cleaning deodorization process. This destroys any remaining nutrients and antioxidants.
- The refined oil is mixed with a nickel catalyst and subjected to hydrogen gas in a high pressure, high temperature reactor. The high temperature and pressure in the presence of the nickel catalyst forces hydrogen atoms into the oil molecules, creating a partially solid, saturated product. This process is called hydrogenation. It is at this point that dangerous trans-fats are created. Basically, the artificially created saturated fat molecules make their double bonds in the wrong places. These molecular misfits have been linked to inflammation, blood platelet stickiness, insulin resistance and other health problems.
- The resulting grey, smelly grease is filtered to remove the leftover toxic nickel and other suspended materials.
- The grease is then mixed with soap-like emulsifiers, then steam cleaned to remove the obnoxious odours.
- The mixture is then bleached to remove the grey colour, and artificial flavours, synthetic vitamins and natural colours (synthetic colouring is dangerous!) are added to improve the appearance and taste.

The margarine smears your bread perfectly, but at the expense of your LIFE. Clever advertising and marketing campaigns are implemented to promote the final product as a health food to the unsuspecting public, usually with the full endorsement of many scientists, doctors, nutritionists and health authorities.

OXIDATIVE MEDICINE AND MORE VITAL MINERALS

1. OZONE THERAPY

Ozone is active oxygen, three oxygen molecules which occurs naturally in the earth's atmosphere to protect us from the sun's harmful rays. It is generated naturally by short-wave solar ultraviolet radiation, and appears in our upper atmosphere (ozonosphere) in the form of gas. Ozone also may be produced naturally by passing an electrical discharge such as lightning through oxygen.

Oxygen is vital and we cannot live for more than a few minutes without it. The study of oxygen is essential, to know how it is vitalized in our bodies. As we age our ability to use oxygen decreases as our circulation decreases. Oxygen utilization is the process in the body by which the energy in the oxygen molecule is converted to energy so it can be used in the body. Oxygen is used for all functions of the body including repair of tissues, our thoughts, our senses, reproduction, digestion, hormones, and elimination of waste and proper working of our organs such as heart, kidneys, and brain. When our level of oxygen utilization decreases the ability of our body to function optimally, decreases.

Lack of Oxygen

Hypoxia is the term used when there is a deficiency or lack of oxygen. When hypoxia is present there is an excess of free radicals produced and the repair mechanisms of the cell are reduced. The powerhouse of the cell is called the mitochondria and it is destroyed and all cellular activity is reduced when there is lack of oxygen. The result is an overall decline in health and wellness. The method by which oxygen is increased is through the administration of ozone. Ozone, is made up of 3 oxygen atoms. Ozone is prepared by passing pure oxygen gas through a tube and a 'spark of lightning' splinters the oxygen to produce ozone. However Ozone is an unstable molecule and within a matter of minutes the ozone molecules will react with each other to form the more stable oxygen (O₂) molecule.

Facts about Ozone

- Ozone is 150 times more powerful than chlorine
- Ozone is 3500 times faster acting than chlorine
- Ozone leaves no toxic or carcinogenic by-products

Ozone and its multiple uses

There are over 3000 medical references in the German literature showing the effectiveness and safety of ozone in over 5 years of applications to humans by way of millions of dosages. The International Ozone Association and the ozone machine manufacturers report over 7000 MD's in Europe using ozone safely and effectively, some for more than 40 years, yet for the past 20 years the FDA has prevented human testing and issuing any ozone-generating device approvals. Any chronic, degenerative disease can benefit from ozone therapy including diabetes, cancer, osteoarthritis, chronic infectious disease, inflammatory diseases, cardiovascular diseases, autoimmune disease, immunodeficiency disorders, and chronic and acute pain. Ozone therapy itself does not cause the healing effect but rather induces the body's own innate healing mechanisms. Thus, it may be used successfully in any medical condition regardless of the western medical diagnosis. Ozone therapy is not typically a 'stand' alone therapy but used with other treatment modalities including acupuncture, nutrition, herbs, and allopathic (western) medication. Ozone is added to water to kill diseases, bacteria, and viruses. It will also help break apart chlorine. 90% of the world's drinking water, including most bottled and municipal water, is treated with ozone to kill germs and bacteria. There is simply no better way to truly purify water and food than with ozone. 99% of all bacteria in drinking water can be killed with ozone water treatments.

Ozone in food industry

When fruits, vegetables, seafood, and meat are placed in ozonated water, surface bacteria are killed.
Removes antibiotics & hormone meat and chicken
Removes pesticides in vegetables and fruits
Removes preservatives in seafood

Ozone in food industry
Ozone in medicinal use

Ozone is Anti-aging

Oxygen and Ozone therapy is a powerful method of flooding your body life giving oxygen to regenerate your cells for true anti-aging effect. Find out why oxygen and ozone therapies are powerful for anti-aging and how you can use them today for your health benefit and to reverse your aging process.

- **Ozone Increases Oxygenation of your Cells** - it has been proven that cancer and disease grow in poorly oxygenated tissues in your body.
- **Ozone Modulates your Immune System** - for those with a weakened immune system, Ozone will boost the immune system. For those with Auto-Immune Disorders, Ozone will modulate the immune system to help to stop it from attacking healthy human cells.
- **Ozone Increases Energy Production in your Cells** - your cells need energy to be healthy; low energy levels mean that you and your cells will not be healthy and will age.
- **Ozone Increases the Activity of your 'Anti-Oxidant Enzyme Systems'**. This means ozone will reduce the oxidation levels of your body.
- Ozone reduces the level of **acidity** of your body.
- Ozone kills Bacteria, Viruses and virtually all other disease causing organisms it contacts.
- Ozone Kills Cancer cells on contact

Ozonated Water

Ozonated Water is one of the most wonderful substances known to mankind. The process of ozonating water can produce two results:

- Pure water free of bacteria, viruses, spores, parasites, and chemicals. Wonderful for drinking, or using in pools and hot tubs.

- If done properly, ozonated water can actually 'hold' ozone for a short period of time. With the proper use of a high purity, high output ozone generator, the ozone is bubbled through the water. This ozonated water can contain significant levels of ozone bonded to the water. The ozonated water can be used topically as a healing and antibacterial & antifungal agent, on burns, scrapes, bruises, in dentistry, surgery, and many other applications. If you drink this water, you are actually drinking 'ozone'. For the purposes of this page of information, we will call this 'Medical Ozonated Water'.

Making Medical Ozonated Water

- Use an ozone generator that produces high concentrations of ozone. UV Ozone Generators will allow you to purify water, however the ozone output is so low, that making Medical Ozonated Water is basically impossible. You need to use a high quality Corona Discharge Ozone Generator.
- Large bubbles of ozone do not allow proper transfer of the ozone into the water, therefore you must use only small bubbles. To make small bubbles you need a 'bubbler'. Although many companies provide bubbling stones, this is not a good idea. These 'stones' will be slowly destroyed by the ozone, and will impart impurities into the water. Only use ozone resistant bubblers, preferably made from glass.
- Ozonate the water in a glass vessel; never use plastic. This ensures that your water remains pure and uncontaminated. The water needs to be COLD.
- Ozonate the water for a sufficient period of time. Ozonating for 5 minutes as most web sites suggest will do almost nothing. Ozonate each 500 ml of water for at least 20 minutes. Therefore if you are ozonating a litre of water you need to ozonate for 40 minutes. One gallon requires 2 hours. These times can be verified by testing the amount of ozone in the water. During this amount of time the water continues to absorb the ozone. Once these times have been reached ozonating for a

longer period of time is not required- the water has already absorbed as much ozone as it possibly can.

Drink the ozonated water within a short period of time. The ozone will degrade back into oxygen, so you need to drink the water before this happens. Keeping the water for later is possible by placing it in the refrigerator, however within a day, the water will lose up to 50% of the ozone.

If you have an adjustable ozone generator, ozonate the water at the highest ozone setting possible. It is for this reason that the best ozone generator to use is one that uses cold corona discharge technology. UV Ozone Generators can generate only approximately 1-3 ug/ml, cold plasma usually only 30 ug/ml but sometimes 60 ug/ml, where as cold corona ozone generators generate up to and beyond 100 ug/ml. Ozonating water is one of the few cases where 'more is better'. Water will absorb more ozone at the higher ozone concentrations. At the same time however you do not need to be concerned with having too much ozone in the water, as water is incapable of absorbing so much ozone that it would be harmful. Therefore ozonate away at the highest ozone output you have for the specified amount of time and you will make the best ozonated water for your particular ozone generator.

If you have not yet purchased an ozone generator our recommendation is to purchase a high quality cold corona ozone generator with a long warranty - they will make the best ozonated water.

Ozone is utilized for Water Treatment purposes all over the world and has been for over 100 years. This non-toxic agent (Ozone) has been proven to thoroughly disinfect the water, killing all pathogens while leaving no toxic residues in the water. Ozone's closest competitor (Chlorine) cannot claim either of these wonderful attributes. Chlorine is a toxic cancer causing agent in its own right, and the interaction of chlorine with organic molecules in the water, creates even more toxic by-products called TriHaloMethanes or THM's. THM's are quite stable in the water and make it all the way to your water glass. In short, you are drinking THM's with every glass of water you obtain from the tap in your home.

There are thousands of THM's so testing every single one of them would be quite time consuming. Suffice it to say however that every THM that has ever been tested has also proven them to be cancer causing agents. For this reason European cities have strict regulations on the concentration of THM's that can exist in drinking water. The purpose of this section is to let you know that Ozone provides the world with a wonderful alternative to the use of Chlorine for water purification. The information provided here is meant to be very basic, just to give you an overview how Ozone is used in Water Purification.

The Benefits of Steam Sauna and Ozone

Sweat contains more toxins than urine. It is for this reason that the skin is often called the 3rd kidney. Steam Sweat Therapy is a powerful healing tool that is rarely used in North American Society. Steam Therapy should be part of everyone's daily health plan. Read the articles to find out how Steam Sauna Therapy can help you to maintain, or regain your health. The use of a sauna should be an important part of any detoxification program. The sauna increases the eliminative, detoxifying and cleansing capacity of the skin by stimulation of the sweat glands and also promotes healthy skin tone and texture due to increased blood circulation. Using the steam sauna with ozone allows the steam to surround the body and ozone can be introduced through the skin. Humid heat opens the pores, which allows the ozone through the skin to the bloodstream, where it can travel to the fat and lymph tissue. It is very important to cleanse the lymph tissue of toxins and the ozone/steam sauna is the easiest and best way to accomplish this.

Artificially induced hyperthermia (rising body temperature results in the destruction of bacteria and viruses) combined with heavy sweating and a cleansing effect initiated by ozone will result in elimination of toxins accumulated mainly in the lymphatic system relieving the liver from the difficult task of dealing with them. Through the centuries, men and women have used steam to purify the skin, soothe sore muscles, and boost circulation or to simply relax. The combined action of moist heat and ozone cleanse the lymphatic system, which carries 90% of the body's fluids. Ozone brings

oxygen to the tissues for enhanced health and vitality. The combination of steam and ozone is a natural, effective way to promote a refreshing sense of well-being. We believe that an Ozone/Steam Sauna cabinet or tent represents a pleasant and easy to follow form of body cleansing.

Benefits of ozone sauna:

- Relaxes and loosens muscles by reducing the build-up of lactic acid and increasing muscle flexibility.
- Oxidizes toxins so they can be eliminated through the skin, lungs, kidneys and colon.
- Boosts blood circulation, helping injured muscles to repair quicker.
- Stimulates vasodilatation of peripheral blood vessels relieving pain and speeding the healing process.
- Eliminates bacterial and viral infections of all kinds.
- Speeds up the metabolic processes of the inner organs and endocrine glands resulting in a loss of 200-450 calories in a 20 minute session.

Newest research shows steam **hyperthermia** an effective treatment for:

- Detoxification programs
- Immune system deficiencies
- Pain management
- Cancer
- Arthritis
- Stress and muscle tension
- Increasing body metabolism
- Elimination of toxins
- Blood circulation

Ozone Prolotherapy or Simply Prolozone

So what is this therapy?

It's simply a modification of prolotherapy. Prolotherapy is to make multiple injections of natural substances like glucose or saline. These solutions cause temporary inflammation, which stimulates your body to heal. It works in areas where most treatments can't do anything, such as your joints, ligaments, and cartilage. They won't heal very well, because unlike muscles, they don't have a blood supply to bring them oxygen. Prolotherapy injections irritate the area just enough to stimulate a temporary blood supply to repair the injury. By modifying prolotherapy with Ozone, we can actually supercharge the treatment. It heals much faster, which means fewer injections and less pain.

This modification is Prolozone. It's an amazing treatment using an oxygen/ozone gas mixture instead of the prolo solution. The treatment essentially directs oxidation, to the affected painful area. This induces your own body to actually heal the problem.

Firstly the area is anesthetized with procaine, a local anaesthetic. Now here's the amazing thing. Procaine typically lasts only about 15 minutes. Yet the pain relief lasts and lasts. How could that be? Let's consider the obvious – oxygen. After the numbing medicine, a small amount of gas is injected. Because of the procaine, the injection is virtually painless. Its oxygen, but a small amount is the highly active oxygen called ozone. Any area of pain and injury is begging for oxygen. That's because oxygen is the most critical nutrient for energy production and healing. Without it, cells simply cannot repair. They might languish in an injured state for years, or eventually die. The oxygen alone can get the cells going. It stimulates them to excrete waste material, and promotes their ability to repair themselves and the tissues around them. By definition, pain is a result of lack of oxygen, as with an ischemic muscle cramp. You can ask any person suffering from angina.

Prolozone works by providing energy-producing oxygen to the innermost parts of your joint. This is where ozone, which I call the miracle healer, does its magic. Ozone is a powerful stimulant of cellular growth factors, such as

- Transforming Growth Factor Beta (TGF-B). This powerful cytokine activates cartilage cells to produce matrix proteins necessary for the body to make the white cartilage substance.
- TGF-B improves matrix protein arrangement. It protects the surface of the cartilage. It modulates the activity of enzymes that dissolve other proteins and compounds that are involved with inflammation.

That's a 1-2-3 punch for healing. Injecting ozone in or around the joint stimulates tissue regeneration, a build-up of antioxidant enzymes and a reduction in inflammation. Can it actually regenerate your cartilage? I've seen knee X-rays that show a definite increase in cartilage thickness. So, yes, it really does regenerate cartilage.

We can think of our joints as the hinge on a door. Until the hinge is fixed the door just isn't going to open or close right and it's the same exact story with our joints. If we are athletic or if we are just getting older there is some gradual and natural degeneration of the moving parts of the body due to ongoing recurrent mechanical stress, and failure of tissues to repair. This can come from lack of nutrients, lack of circulation, aging and inflammation. When this happens the ligaments, tendons, and cartilage become dehydrated and weaker. This results in laxity and more abnormal mechanical stress and shearing forces on the joint. Abnormal shearing forces and torsion cause more joint dysfunction. This leads to a progressive separation of the ligaments from the superficial covering on the bone called the periosteum. This pulling on the periosteum creates a space, which the body fills in with new bone. These new parts of bone are called osteophytes. They are the premier signs of degenerative arthritis in & around the joint. Osteophytes and joint laxity result in a reduced range of motion, which causes strain on surrounding muscles which then become either over or under worked leading to more dysfunction & pain.

Ozone reacts almost instantly with the membranes of the cells it contacts. The oxidation of the membrane jump starts the cells. Immune cells are particularly responsive to ozone. They will produce a cascade of powerful healing chemicals called cytokines. These are the very short proteins immune cells use to talk with each other. Immune cells not only provide protection against infection, they also clean up debris and modulate inflammation.

Research has connected arthritis and chronic pain to subclinical infection. While ozone stimulates cells, when it comes into contact with microorganisms, it kills them. In other words, this non-toxic therapy can kill microbes on its own, and stimulate your immune cells to kill them as well. When delivered directly to a painful area, the combination of oxygen/ozone provides the stimulation to repair while simultaneously providing the essential oxygen to energize them. If you have chronic pain, Prolozone could be your ultimate answer.

Other ways to Administer Ozone?

We appreciate Ozone therapy is subdivided into a number of different methods, some of which can be self-administered with an Oxygen cylinder and a medical Ozone generator. These methods include:

- Ozonating water (useful for bladder, stomach and kidney problems in particular)
- vaginal / bladder insufflation - Ozone gas inside the vagina, kills the pathogens and at the same time the Ozone gas will react with unsaturated fatty acids of cell membranes and produce a
- series of biochemical effects that can stimulate local and systemic blood circulation. With this method the vaginal discharge can be eliminated.
- ear insufflation for problems of the ears, The ozone enters the ear canal and passes through the eardrum, which is semi-permeable. There, it oxidizes anything that is growing there, e.g., candida. After that, it will travel on to the eyes, and into the brain, oxidizing any toxins it comes into contact with. That is why this is a useful treatment for eye problems, as well as epilepsy.
- Rectal insufflation for problems of the colon.
- Direct Tumour Injection. Once injected it is liquefied by the use of medical ozone

- Medical doctors tend to favour auto-haemotherapy where blood is taken from the body, mixed with Ozone and then returned to the body. This is used commonly in Germany.

Application of the Ozone Therapy in Cosmetology - It is applied mostly as an anti-age therapy against wrinkles, scars, improvement in rosacea by strengthening the vessels, improvement of microcirculation. Treatment of serious acne is a big challenge. It is also a good way for cellulite treatment. In cosmetology – subcutaneous application of oxygen and ozone mixture in a certain concentration and amount. The mixture is injected in or around the wrinkles, surface hypodermically with a very fine mesotherapy needle. This is how the microcirculation is improved, the cells are rejuvenated and the metabolic processes in them are stimulated. The destructive effect of the free radicals is neutralized. This stimulates the collagen and elastin synthesis and restores the natural ability of skin to keep the moisture. As a result, the wrinkles become smooth, a significantly rejuvenating effect is achieved, and the skin becomes more elastic and flexible. The necessary number of procedures is 8-10.

At cellulite treatment – the ozone therapy helps the destruction of the sclerotic shell of fat tissues and this way it decreases manifestation of the so called ‘orange skin’. Not only ozone activates the fat volume, but it also starts a mechanism for natural decrease of the accumulated fat. Blood circulation in the tissue improves, as the skin becomes more flexible, tight and elastic. The structure of the connective tissue becomes normal. At systematic injecting of ozone, the hormonal balance and metabolism are recovered.

How often are the treatments?

Dependent upon the health condition treated, ozone therapy may be administered daily. The frequency of treatment is dependent upon the nature of the patient’s condition and how it is administered. With Prolozone, most patients will benefit from treatments every 1-2 weeks. Acute conditions may need 3-6 treatments to resolve. Patients with chronic health conditions, including painful conditions may need ozone therapy with follow-ups every 1-2 months long term.

Summary

Ozone therapy is an extremely safe and effective treatment for a variety of health and painful conditions. Ozone treatment increases the oxygen utilization in the body that decreases as we age. Ozone therapies may be administered in a variety of methods dependent upon the condition to be treated and Prolozone is the treatment of painful musculoskeletal conditions. Ozone may be used independently or with other treatments. Ozone is a treatment to be considered to address a variety of health and musculoskeletal conditions rather than treatments involving prescription medications, steroid injections and especially surgery.

Hydrogen Peroxide

Hydrogen peroxide is often used for first aid, as it is important when it comes to disinfecting wounds and staving off infections. When Hydrogen peroxide reacts with organic material it breaks down into oxygen and water, meaning it is non-toxic for general use. It is an inexpensive product that has much more benefits than one would think.

Hydrogen peroxide is often described as being “water but with one more oxygen atom”, a description which can give the incorrect impression that there is a great deal of similarity between the two compounds. Pure hydrogen peroxide will explode if heated to boiling, will cause serious contact burns to the skin and can set materials alight on contact. For these reasons it is usually handled as a dilute solution (household grades are typically 3-6%).

It kills microorganisms, including germs, by oxidizing them and it can even get rid of infections entirely, such as yeast infections, foot infections, sinus infections and more.

The most common type of hydrogen peroxide that is used is the pharmaceutical grade. Hydrogen peroxide that is over 3.5% solution should be used cautiously.

Disinfectant

This is one of the most common uses for hydrogen peroxide since it can kill the majority of germs. It can be used safely in the bathroom and kitchen for disinfecting items such as brushes, counters, tables, cutting boards, buckets, etc. It can be used as a disinfectant all over your home, making it a useful item to have on hand. Some people use hydrogen peroxide to sanitize meat after it's taken out of the packaging, while others use it to disinfect vegetables. If you use it to sanitize your meat or vegetables make sure they are rinsed thoroughly.

Stain removal

This solution is often used as a stain combatant since it's much cheaper than stain fighting products. It will fight all sorts of stains from clothes, rugs, table clothes or anything else and it's easy to use. It can also be used to remove blood stains and here's what you have to do:

- pour hydrogen peroxide onto the blood stain and cover the entire area
- once it hits blood it will fizz white and you should let it sit for 5 minutes
- after five minutes use a scrub brush to scrub off the hydrogen peroxide
- repeat the process if the blood still persists and rinse only after all of the blood is gone

Insect bites cure

Once again, hydrogen peroxide it's an inexpensive solution that helps you during a time of need, when the itching caused by insects' bites is becoming a nuisance. It will help you ease bug bites and take away the swelling and itching that comes from ant bites, bee stings, wasp stings or mosquito bites. In order to cure these bites you should rub the area with a cotton ball soaked in hydrogen peroxide or you can mix a little baking soda with hydrogen peroxide until you obtain a paste and apply it on the insect bite. Do not use hydrogen peroxide on spider bites as those can be venomous and a different approach must be considered.

Antifungal

Many over the counter medications that cure fungus are quite expensive and it's better if you have an alternative that doesn't feed the pharmaceutical industry. Hydrogen peroxide can work for nail fungus, toenail fungus or even athlete's foot. When you notice a white or yellow dot on the underside of your nail, it's better to take action as that dot is a nail fungus. For mild cases you can use a cotton ball soaked in [hydrogen peroxide](#) and rub it all over the area. If the fungus infection has persisted longer you will have to soak your nails or feet in a hydrogen peroxide solution regularly. Fill a soaking tub with water and pour three capfuls into the water, mixing the solution thoroughly before soaking your nails. You should soak the affected areas for thirty minutes.

Infection

Hydrogen peroxide can help to get rid of infections or it can prevent an infection from starting when applied to the wound directly when it happens. It is a good way to keep a wound from decaying and it will take away some of the sting sensation. It is good for sinus infections, skin infections or staph infections. It is completely safe for cleaning out or killing an infection and you should only use a 3% grade solution, anything above that can become harmful. If the infection persists or worsens you should seek for medical aid.

Oral hygiene

It's most commonly used for oral hygiene as a mouthwash since it's known to help you get rid of bad breath by killing the germs causing it. You should gargle with hydrogen peroxide, once a day, in the morning. You can also soak your toothbrush in hydrogen peroxide as it will kill the germs that are forming on it.

Mould and mildew

Products for killing mould and mildew are very expensive, not to mention that they contain harmful chemicals. These chemicals are dangerous if inhaled, especially for asthmatics. Hydrogen peroxide is a safer option to get rid of this fungal growth. Mould and mildew can be found throughout your entire house and it is important to take care of it immediately as they can cause allergies and various illnesses. Use a spray bottle with a 3% solution without adding water. Saturate the area completely with it and let it sit on the area for 20 minutes. Use a rag or a scrub brush to scrub the area until all of the mould is gone. Wipe the area down with a damp rag and let it air dry. Some people suggest applying a solution made from half vinegar and half hydrogen peroxide to prevent mould from growing back.

Feminine hygiene

Hydrogen peroxide it's being used by women to keep down yeast infections. Women can douche with it if only two capfuls were added to the [water](#) and no more than that. Add a little and go from there as it's safer for you. Douching with hydrogen peroxide rids the vaginal area of unnecessary yeast and bacteria. This will also keep feminine odour down or eliminate it completely. You have to do it once a week for proper feminine hygiene, but doing it at least once every two weeks will do the trick for most women. Depending on how far along the infection is you'll need to seek help from a medical professional as hydrogen peroxide will not work for extended infections.

Gardening tips

Hydrogen peroxide is used by many people to keep their plants healthy and their garden running efficiently. You can add a teaspoon to every cup of [water](#) for sickly plants. Watering the plants with this solution will help the plants grow strong. Some spray it on tree cuts to keep them from getting infected while others use it as fertilizer. Some farmers use a 10% hydrogen peroxide solution in a spray bottle to kill weeds. However, if you decide to use this method, make sure you don't spray all your plants with the solution as it will kill them, caution is recommended.

Store hydrogen peroxide away from sunlight and heat

2. CHLORINE DIOXIDE

Chlorine dioxide (ClO_2) does not affect the friendly bacteria in the body, or any of the healthy cells. This same chlorine dioxide ClO_2 is manufactured by your body's immune system to kill pathogens and other harmful micro-organisms.

Chlorine dioxide (ClO_2) is the most effective pathogen-killer that exists, it kills illness pathogens so effectively, more than any other known remedy. It kills viruses, bacteria, candida and parasites, neutralizes heavy metals, eliminates biofilm and stimulates the immune system. Each time a pathogen is killed, it releases toxins into the body, and you need time to clear them out. To understand how Chlorine Dioxide Solution works you have to first understand the structure of a Pathogen. Almost all Pathogens have outer membranes (skins) and these disease causing micro-organisms generate waste material that is poisonous and creates the symptoms of whatever diseases the pathogens cause. These poisons have mostly a negative charge and have a negative Oxidation Reduction Potential.

Chlorine Dioxide Uses Oxidation To Kill Microorganism:

Chlorine dioxide (ClO_2) kills most microorganisms through the process of oxidation. Oxidation is not always understood, with many people thinking that oxidation is the process of adding oxygen to other substances. That is not the case. Oxidation is the process by which substances are destroyed. The electrons that hold a substance together are pulled off by the oxidizing chemical and thus the substance then comes apart, which of course, destroys it.

Chlorine dioxide (ClO_2) is unique in the chemical world because the chlorine dioxide molecule has a chemical characteristic that changes and makes it selective for pathogens. The change happens when the chlorine dioxide (ClO_2) molecule pulls one electron from a pathogen, which normally is not enough to damage the pathogen, but that electron then comes over to the chlorine dioxide (ClO_2) molecule and changes it to a greater strength, which then allows it to pull 4 more electrons from the pathogen. When this happens a thousand times or a hundred thousand times, the pathogen is destroyed, mainly because this process blows a hole in the side of the pathogen. Chlorine dioxide (ClO_2) is a relatively small, volatile and highly energetic molecule.

Ozone is the strongest oxidizer with an oxidation potential of 2070 millivolts;

Hydrogen Peroxide is the second strongest with an oxidation potential of 1800 millivolts. Oxygen itself has an oxidation potential of about 1300 millivolts, Chlorine Oxide (ClO_2) has an oxidation potential of 950 millivolts.

Thus Chlorine Dioxide (ClO_2) has the lowest oxidation potential of all, for a reason. It cannot oxidize anything else in the body other than Pathogens. Almost all Pathogens have outer membranes (skins) that can be easily oxidized by chlorine dioxide. (ClO_2) It is extremely explosive to the outer membranes of these disease-causing micro-organisms, ripping them apart.

The negative charge of the disease causing bacteria is attracted to the positive charge of the chlorine dioxide (ClO_2) and this kills the pathogen. The good bacteria produces no poisons and they have no negative charge. It does not affect the friendly bacteria in your body, or any other healthy cells. It is one of the same chemicals that your body's immune system manufactures to kill viruses, bacteria and other harmful micro-organisms in your body.

Why Is Chlorine Dioxide (ClO_2) So Good?

Chlorine Dioxide (ClO_2) has been called the 'ideal' biocide because of its unique combination of properties. It destroys 99.9% of all pathogenic microbes known to man including bacterium, viruses, protozoa, yeasts, and fungi..including Anthrax. Chlorine Dioxide was a pesticide used in federal decontamination responses to the anthrax spore bioterrorism attacks of October 2001. It does it rapidly in seconds, whereas other microbicides can take many hours or even days to work.

Where Do we use Chlorine Dioxide (ClO_2)?

Chlorine dioxide (ClO_2) is used in municipal water plants to disinfect potable water and in wastewater treatment plants for oxidation and odour control. It is used in food and beverage plants for hard surface sanitation and fruit and vegetable processing. It is also used in cooling towers and hospitals for legionella control, rendering plants for odour control, and in oil and gas water treatment as a biocide, among other common uses.

In many instances, Chlorine dioxide (ClO_2) is replacing chlorine gas or bleach to meet higher performance standards or regulatory requirements. Chlorine dioxide (ClO_2) is used to disinfect potable water around the world and is approved for use by the Environmental Protection Agency (EPA) and the World Health Organization (WHO).

Is Chlorine Dioxide (ClO_2) Safe

Chlorine dioxide (ClO_2) has been used safely in industrial and municipal applications for over 70 years. Chlorine dioxide (ClO_2) has gained wide acceptance in the oil and gas industry for use in water treatment.

Chlorine Dioxide (ClO_2) Is Not pH Sensitive

Unlike chlorine and bromine, which both become less effective as the pH of water rises, ClO_2 remains an extremely effective biocide between pH 4 and 10.

Chlorine Dioxide (ClO_2) Targets Biofilms

Chlorine dioxide, like ozone, is a dissolved gas that penetrates biofilm by molecular diffusion. However, unlike ozone, chlorine dioxide is stable and soluble, allowing it to travel to the base of the film where it attacks microorganisms and destroys the biofilm at its point of attachment. Other oxidizers react mostly on the surface of the biofilm to form an oxidized layer, like charring on wood. This precludes further penetration. No other biocide has been shown to control biofilm better than chlorine dioxide. This makes CLO₂ particularly effective in controlling and removing pseudomonas and other slime-forming bacteria which can cause major problems in systems such as cooling towers, heat exchangers, spa pools/baths and hot tubs.

Chlorine Dioxide (CLO₂) Is Effective Against Legionella

Chlorine dioxide (CLO₂) is extremely effective disinfectant used for legionella control and inhibiting the microbial biofilms in which they tend to grow. It is recognized as an effective biocide and disinfectant to control the risk of Legionnaires' disease associated with hot and cold domestic water systems, cooling water systems, spa baths, hot tubs and leisure pools.

Chlorine Dioxide (CLO₂) Has No By-Products

Whenever 'pure chlorine' dosing systems are used in the purification of drinking water that contains natural organic compounds such as humic and fulvic acids, it tends to form halogenated disinfection byproducts such as tri-halo-methanes (THMs). Drinking water containing such DBPs has been shown to increase the risk of cancer.

Chlorine dioxide (CLO₂) works differently to chlorine; its action is one of pure oxidation rather than halogenation, so these halogenated DBPs are not formed.

Chlorine (bleach) and Bromide, which make carcinogenic trihalomethanes, do get washed down the drain and deposited in the environment.

Unlike chlorine, Chlorine dioxide (CLO₂) do donate oxygen, making it breaking down to water, oxygen and common table salt. This makes it much less corrosive to equipment and a superb environmental choice. It also breaks down quickly, which means it won't harm the soil or add toxic deposits to the ground.

Chlorine Dioxide (CLO₂) Has No Taste

Yes no taste, odour and taint problems – Ordinary chlorine reacts with ammonium compounds to form environmentally damaging chloramines, which give the water an unpleasant after taste and odour.

Because Chlorine dioxide (CLO₂) doesn't form chloramines and other halogenated DBPs, it does not cause taste and odour problems in drinking water, and in process water there is less risk of tainted product. This means CLO₂ is often used in drinking water purification and is the disinfectant and sanitizer of choice for water used in food and beverage production. In 2005 the 'Food and Safety Magazine' published 10 reasons why we should trust Chlorine Dioxide to be used with our food handling.

Is Chlorine Dioxide (CLO₂) Similar To Chlorine? No

Chlorine dioxide is not the same as chlorine; it is radically different in its properties despite sharing the word 'chlorine'. Although both chlorine dioxide and chlorine are oxidizing agents (or electron receivers), chlorine dioxide is significantly more effective as a biocide and disinfectant than chlorine. This is because chlorine molecules have the capacity to accept only two electrons, whilst chlorine dioxide has the capacity to accept five.

One of the most important properties of Chlorine dioxide (CLO₂) that sets it apart from chlorine is its behaviour when placed in water. Chlorine hydrolyses, or reacts, when placed in water to form hypochlorous and hydrochloric acids. Chlorine dioxide (CLO₂) does not hydrolyse in water and remains a truly dissolvable gas.

Chlorine is an effective biocide only in systems where pH is less than 8, whereas Chlorine dioxide (CLO₂) retains its useful oxidative and biocidal properties throughout a broad pH range (2 to 10 pH). Chlorine dioxide (CLO₂) has a lower oxidative potential than chlorine but has 2.5 times the capacity, making it a more effective disinfectant.

Additionally, Chlorine dioxide (CLO₂) does not chlorinate organics to form disinfection by products such as THMs and HAAs.

Chlorine dioxide has a long and established history. It has been safely used for more than 70 years to disinfect much of the nation's food and water supply, and is also used at more than 900 water treatment facilities around the world every day. Now more than ever, Chlorine Dioxide (CLO₂) is being widely recognized for the properties that make it a high-quality, low cost alternative to other disinfection methods.

Chlorine Dioxide For Water Purification

Chlorine Dioxide does no harm to your body.

Chlorine dioxide with the weakest oxidation potential of 0.95 volts, will do very little damage to the human body. This is because these voltages cannot overcome the opposing oxidation potentials in the human cells and tissues. And as you can see, if oxygen with oxidation level of 1.28, does very little or no damage, then the lesser oxidation voltage of chlorine dioxide is much less likely to do any damage at all.

Chlorine Dioxide is highly selective and does not harm stomach or the beneficial intestinal microorganisms: Chlorine dioxide is highly selective for pathogens that cause diseases in the body, and does not kill the various useful flora of the stomach and intestines. This is due to the unique properties of the chlorine dioxide molecule.

Chlorine Dioxide is more effective than Oxygen. Oxygen does kill pathogens when it contacts them, but oxygen has other jobs in the body as well. It oxidizes various body poisons generated during the course of the day. These poisons have an oxidization potential that allows oxygen to destroy them, but oxygen is neutralized quickly in the process of destroying the poisons - of which there are many. As the poisons are often released deep in the tissues, they work their way outward and oxygen destroys them by working its way inward towards the poisons. When they meet, the poison is destroyed and the oxygen is neutralized. However chlorine dioxide is different as it does not destroy much of the poisons that oxygen does destroy, but it can get in the nooks. It can go deeper into the tissues where many of the pathogens hide from the oxygen, because the oxygen is used up by the poisons before it reaches the pathogens. But since the chlorine dioxide is not used up by these particular poisons, it can go much deeper into the tissues and thus the pathogens cannot hide from the chlorine dioxide. Chlorine dioxide has a 2.5 times greater capacity to kill pathogens than oxygen. What this means is that a small amount of chlorine dioxide is equal to a much larger amount of oxygen and other oxidizers. It may not be as strong, but it has a larger capacity to do what it does best.

The International Federation of Red Cross & Red Crescent Societies (IFRC), the parent organization of the more widely known American Red Cross, is currently engaged in a massive cover-up of a simple, non-toxic cure for malaria. A recent field trial conducted with a team of Red Cross humanitarian workers in Uganda found that 100 percent of malaria victims treated with a simple solution mixed in water were healed within 24 to 48 hours -- but now the Red Cross is disassociating from the findings, claiming the trial never even happened. A leaked documentary film recently posted to YouTube shows a team of experts heading to the small Ugandan village of Iganga, where a joint trial evaluating the effects of sodium chlorite activated to produce chlorine dioxide, a solution more popularly known as MMS, took place back in December 2013 with the help of Ugandan Red Cross workers. The film, which features a number of Red Cross officials and other workers administering the solution to local villagers, details the progress of the trial from start to finish, highlighting its important findings. You can watch the film here: <https://www.youtube.com/watch?v=FrwZN1cPfx8>If it is still permitted on you-tube!

In total, we identified 154 malaria positive patients, together with the local health authorities or the doctors. All of them were treated. All of them were, between 24 hours and 48 hours, malaria negative ... without any side effects. But rather than acknowledge these powerful findings and look into them further, the Red Cross dragged its feet in analysing the data and proceeded with business as usual, without any further inquiry into the potential benefits of MMS. "To date, the Red Cross has done nothing with the results, except, of course ... to hide the truth and tell lies," says Leo Koehof, an MMS specialist who was involved with producing the film. It is equivalent to genocide. Now strangely as it seems, the USA army has a different stance towards chlorine dioxide. http://www.army.mil/article/136641/Natick_plays_key_role_in_helping_to_fight_spread_of_Ebola Yes it helps fight the dreadful Ebola virus.

Chlorine Dioxide Fumigation

I believe each sick child's room should be fumigated. Chlorine Dioxide Fumigation is very affordable and it will eliminate ALL Odours from your home even if they are stubborn like Pet, Cigarette odours or whatever offends your nose. Chlorine dioxide Gas actively destroys and absorbs odours rather than masking scents with fragrances.

Embarrassing house odours, stinky apartment odours, smelly musty Car odours are no longer a problem. All thanks to our revolutionary technology by using extremely effective Chlorine Dioxide gas. Our products work so well they will even remove bad odours from your furniture and get rid of spoiled food odour from your car.

Smoke odours are known to affect and have a negative impact on one's health, and can make a living space unbearable. Whether it is from a fire or cigarette smoke, it is one of the most stubborn odours to remove and can cost thousands of pounds to eliminate.

Your home may have toxic fumes that causes the 'sick house syndrome' – especially when all the windows are shut. If your house is 'sick' your child could also be ill. Chlorine dioxide gas are friendly to your body.

Chlorine Dioxide Gas is known for its unique properties a low cost alternative to other fumigation method. Chlorine dioxide gas has an intense greenish yellow colour with a distinctive odour similar to that of chlorine. Chlorine dioxide is highly soluble in water but, unlike chlorine, chlorine dioxide does not react with water. In the privacy of your own home, or any building it can be lawfully created and it must not to be mistaken for household chlorine bleach or elemental chlorine gas.

Chlorine dioxide gas is the only decontaminating agents that are truly effective in areas that are difficult to reach such as in floor drains, ceiling grids, the underside of furniture and components, the inside of cabinets, hinges, and other difficult to reach areas. Other decontaminating methods such as sprays, mists, foggers, vapour generation systems, and manual wiping are not effective because they do not reach all areas at an effective concentration.

Chlorine Dioxide Gas offers effective decontamination against life threatening organisms and it proved to be non-carcinogenic, residue-free, and safer on materials than bleach, ozone, hydrogen peroxide, and common liquid chlorine dioxide solutions. Do away with all toxic and ineffective superficial sprays and liquids.

Chlorine Dioxide in high concentrations are toxic to all forms of life and it is possible to control all life stages of either a pest as a Bedbug, or any stage of the Bacteria, Virus or Fungi. I am sure you can name a few of them. Spores or fungi are considered to be the most difficult form of microorganism to destroy.

Fumigation proved to be the quickest way of controlling an infestation, saving time and money. Is your clothing or furniture spoiled by either a flood or smoke damage - Fumigation will salvage the problem. Its safety is proven at Kennels, Gym locker rooms, your vehicle and it will not interfere with the electrics of your car.

Chlorine Dioxide in Everyday Use

Chlorine Dioxide Solution (CDS) is available in different strengths that traps the gas in the cold water. It needs to be kept in the fridge, as it will evaporate from the solution in a temperature exceeding 10 degrees Celsius. The strength is usually 6000 ppm.

Chlorine Dioxide proved to be the most powerful killer of disease pathogens without the toxic elements of other cleaning products. It is the gold standard for food packing plants to sanitize meats, fruits and vegetables. It is used by hospitals as a disinfectant. Its safety and effectiveness are unmatched. It cost efficient. That makes CDS the perfect cleaning product for your home. I will name a few examples on how to use CDS. It is kind to your body and even odour from your pets' fur can be tackled safely - more efficiently than anything else on the market.

Bathroom. CDS is the perfect cleaner for bathrooms. There is no more powerful cleaner for mould and mildew. Simply dilute the CDS and you can use a cloth or a spray bottle. Apply to shower walls, bath tubs, toilets, floors and bathroom sinks. CDS is also ideal for bathroom grout. It not only cleans but brightens. After application allow it to settle for a few minutes and longer for grout. Then wipe away and rinse off. Use full strength for bad areas otherwise dilute down to 1:10

Kitchen. Keeping the kitchen free from bacteria is one of the most important elements in maintaining a clean and healthy home. Studies show kitchens can contain more bacteria than bathrooms. To clean your sponge and brushes use a few drops of CDS, add a cup of water and pour into a bowl. Soak them overnight to keep them germ free. Use diluted CDS to clean kitchen counter tops, cutting boards, sinks (don't forget the drain) the inside and outside of refrigerators and splash walls. Dilute down to 1:10

Food. Food borne illnesses are on the rise. They are caused by eating food or drinking beverages contaminated with bacteria, parasites, or viruses. Harmful chemicals can also be destroyed by making them less toxic. For meat, fish and poultry you can either use CDS to scrub or soak depending on your preference. For scrubbing, rub onto the surface poultry, meat, or fish fillet. Wait about three minutes and then rinse off. To soak, add CDS to bowl or pan and add enough water to cover your food.

Wait three minutes and then rinse. If you have multiple items to wash add a few more drops of activated CDS to your solution and repeat process. Dilute down to 1:25

General Home Use. CDS can replace most of your toxic cleaning products making it a general disinfectant. It is kind to your children if used appropriately. We all are susceptible to the harmful effects of the many branded chemicals. CDS leaves no toxic residue to finally end at our landfills. Dilute down to 1:10.

Plants and Flowers. Studies show that Chlorine Dioxide extends the life of cut flowers by killing the bacteria that breeds in vase and on the stems. Try adding just a few drops of activated CDS and a pinch of sugar to your vase and your flowers will last longer. Add 20 drops of full strength CDS to water If you are a flower lover the money saved is well worth the effort. If you have garden pest then simply spray CDS 1:25 strength. Let it stand for two minutes and wash away.

Smelly Feet. Smelly feet are caused when they sweat. Sweat is essentially just salt and water combined. However, bacteria and fungus that are found on the feet love sweat. They feed on sweat and excrete waste which causes that foul odour. On a warm day the sweat saturates our shoes. It collects on our skin, our socks and the fabric of our shoe. It causes fungal nail infections. To dry our shoes and to spray them with CDS, will help the odour problem. Dilute the CDS to a 1:10 concentration

Help! My dog keeps urinating on the carpet. CDS is best known as a carpet disinfectant cleaner, but it is also an amazing odour remover. You get the best results without damaging carpets and other soft fabrics but not wool. Dogs will keep urinating on a carpet spot, because they can still smell the urine of another dog. You will be delighted to know that the odour of the other dogs will be gone. Dilute down to 1:10 concentration.

Your Thrash Bin. What is that smell? After you have removed your garbage, the awful scent clings to the bin. The problem is that foul odour is caused by bacteria. It likes to grow in damp, dark places like a trash can. Dilute CDS down to a 1:10 concentration. You can spray full strength CDS into your vacuum cleaner to keep its inner fibres germ free. It will combat allergies

Laundry room. Does your washing machine stink or make your clothes smell after being washed? Bacteria hides on the rubber seal in the inside of your washing machine. It also can also grow on wet clothes that have been left in the washing machine for too long. Spraying the inside of my washing machine with CDS help to eliminated the smell of the bacteria. It will make a world of difference on how my clothes and washing machine smell. Oh and don't worry CDS contains no bleach so it is perfectly safe to put in with clothes. Add 5 - 10 ml of full strength CDS to each cycle wash.

Mould and Mildew. They can be found almost anywhere; they grow on virtually any substance when moisture is present, to trigger an asthmatic attack. Removing mould and bacteria can involve strong chemicals that may trigger health problems, like chlorine bleach products producing trihalomethanes (THM) and haloacetic acids (HAAS) - they are linked to cancer. Now there's an ecologically sound alternative. CDS is mild and you can wash your hands in them, and yet effective enough to kill the mould causing many allergies. Exotoxin is a poison secreted by an organism like a fungus, bacteria or algae. For difficult areas use full strength CDS.

The Dangers Of Chlorine

'Chlorine has been documented to aggravate asthma, especially in those children who make use of chlorinated swimming pools. Several studies also link chlorine and chlorinated by-products to a greater incidence of bladder, breast and bowel cancer as well as malignant melanoma. One study even links the use of chlorinated tap water to congenital cardiac anomalies.

Why filter Your Shower Water?

It's funny how people are always concerned with drinking filtered water, when in fact you absorb more water through your skin in one shower than when you drink a glass of water. Yet no one thinks of filtering their shower water. Unfiltered water in the shower is much more dangerous than the water you drink out of the tap. First off, water contains chlorine and it hardens arteries, destroys proteins in the body, irritates skin and sinus conditions, aggravates asthma, allergies, and respiratory problems. Tests have shown that while taking a 10-minute shower, your body can absorb up to 8 glasses of water. The warm water opens up your pores letting more water in. You are not only absorbing water through the skin but also inhaling chlorine vapours. Because you are absorbing water through the skin it goes right into your bloodstream, which is 6x higher, then when you are drinking water. When taking a warm shower the makeup of chlorine changes and becomes even more dangerous which irritates your eyes, your sinuses, your throat, your skin, and your lungs. Long-term risks include excessive free radical formation (which makes you age faster), higher vulnerability to genetic mutation and cancer.

It has been estimated that the 'shower steam' in your bathroom can contain up to 100 times the amount of chlorine than the water, because chlorine evaporates out of water at a relatively low temperature. If you bathe or shower in unfiltered tap water you are inhaling and absorbing chlorine into your body.

Conditions contributed to or aggravated by chlorine exposure:

- Respiratory Conditions (nose, throat, lungs, and sinuses): Asthma, bronchitis
- Hair: Dry, brittle
- Skin: Dry, flaking, dandruff, itching, rashes, (especially with infants and children) eye irritations and other conditions

Chlorine is universally used to chemically disinfect water. It kills germs, bacteria and other living organisms. Chlorine readily passes through the cell wall and attaches to the fatty acids of the cell, disrupting the life sustaining functions. The human body is composed of billions of cells. Most people are aware that the quality of their drinking water can be improved by filtering their tap water

or buying bottled water. However, many do not realize that they are addressing only a part of the problem.

One half of our daily chlorine exposure is from showering. Chlorine is not only absorbed through the skin, but also re-vaporized in the shower, inhaled into the lungs, and transferred directly into the blood system. In fact, the chlorine exposure from one shower is equal to an entire day's amount of drinking the same water. Drinking filtered or bottled water only does half the job. For people who are concerned about their health and are willing to take the responsibility to do something about it, a top quality shower water filter is an affordable solution to the problem. Most people are unaware the showering or bathing straight from the tap, causes health problems by inhaling unfiltered shower vapours. (steam) During a shower, we also have toxic chloroform evaporates into the surrounding air you breathe.

Swimming pools?

The two most common pool and spa chemicals today are chlorine and bromine. They are two exceptional toxins. Collectively they include such carcinogens as chloroforms, bromoforms carbon tetrachloride, dichloroethane and other cancer causing agents. The level of chlorine in our swimming pools is over 1,000% the level deemed minimally safe by the EPA in water. It clogs our arteries causing atherosclerosis, stroke and heart attacks. Our skins are targeted causing it to age prematurely. It converts to dioxins - the most risky of cancer causing chemical, which build up permanently within a person's body causing infertility and birth defects. It damages the nervous system permanently.

'Chlorine is so dangerous' and according to Dr. Herbert Schwartz, it should be banned permanently. Putting chlorine in water is like starting a time bomb. Cancer, heart trouble, premature senility, both mental and physical are conditions attributable to chlorine treated water supplied. It is making us grow old before our time by producing symptoms of aging such as hardening of the arteries. Personally I prefer swimming in seawater, and if inland, then why not treat ourselves at a thermal spa?

The obvious question is why hasn't the swimming pool industry adopted alternative technologies on a much more industry-wide basis? After all, Ozone technology for swimming pools has been in regular use for over 50 years in places like Germany, France and other European countries. This is frustrating as in North America and the United Kingdom we are now stuck with swimming pools that in Europe would be considered 'surge tanks'.

The issue of Ozone in the Olympic pools started at the Atlanta Olympics in 1996. A group of German swimmers actually refused to enter one of the main event swimming pools. What could have persuaded this group of highly disciplined athletes to stage this protest at one of the most prestigious events in the world? The problem is to evolve an Ozone or other technology that can retrofit a large installed base of swimming pools in an economical manner. Luckily they are now starting to appear in the marketplace.

Remember never mix bleach with acids, or any ammoniated chemicals like amines. A very dangerous chlorine gas will be produced that can be deadly. Do not discard bleach indiscriminately because it has been known to cause spontaneous combustion when combined with wood, rags and other materials. When working with bleach you should have adequate ventilation, wear protective clothing in case of spills and wear rubber gloves if handling the liquid. In the case of spills, you can neutralize bleach with sodium sulphide. If you get this liquid on your hands or in your eyes, flush with water liberally.

AN OVERVIEW OF MINERAL DEFICIENCY

The ABSORPTION of minerals:

There are three types of mineral supplements:

Elemental, Chelated and plant derived colloidal. Be careful some elemental minerals are called colloidal at health food stores.

Your body absorbs and reacts to each differently.

- Elemental minerals include egg shell, oyster shell, calcium carbonate, dolomite, mineral salt, sea water, mineral oxides and clays. Typically elemental minerals are found in tablets and powders as citrates, lactates, gluconates, sulphates, carbonates, and oxides. The normal young adult can only absorb about 8 to 12 % of these and then after age 40 the absorption usually drops to 3 to 5 % Also consider taking 1000mg of calcium lactate. 860mg (86%) is lactate and only 140mg (14%) is calcium. Of this 14% you get the rate you can absorb: 14mg at 10% absorption and a scant 2.8mg at 2% absorption. Elemental minerals can also build up in the system and cause toxicity.
- Chelated minerals are elemental minerals which are wrapped with an amino acid, protein or enzyme. Chelated minerals are usually about 40% absorbable and your body passes through the other 60%. Chelated minerals are easily recognized by the amino acid suffix such as selenium aspartate, chromium picolinate or sometimes as an "amino acid chelate".
- The highest absorption, up to 98%, comes from plant derived colloidal minerals. These are minerals which have been processed by plants and are extremely small in size, about 7000 times smaller than a red blood cell. The average human can absorb up to 98% of these minerals. Contrary to many beliefs, our modern food does not contain the full spectrum of minerals and we must rely on supplementation to get what we need. The best source of plant derived colloidal minerals is Humic shale (compressed prehistoric plants about 70 million years old). Plant derived colloidal minerals are water soluble and will not cause toxicity.

Almost all trace elements function as a catalysts to enhance either a cellular or sub cellular enzymatic reaction. They are extremely important for your health. Without them, normal reactions at the cellular level may be incomplete jeopardising the functions of your body. Initially one might experience trivial symptoms such as low blood sugar, irregular heart beat or greying hair. Ultimately with time, the appearance of symptoms such as impaired learning, dystrophy of muscles, loss of stamina and decreased longevity are noted.

The ratio of the minerals are vital, and they need to be balanced with the other minerals. For example calcium and magnesium work together, taking one without the proper amount of the other fails to get the best results. Too much of the one may negate the benefits of the other. Chromium and Vanadium, in the proper ratios, work together and it has a tremendous results in treating adult onset diabetes. Many examples could be given, but the important thing to remember is minerals must be in balance to be effective

Albion Laboratories, who are the world leader in patents on supplemental [minerals](#), published a conservative measure of mineral deficiencies in the United States: It is shocking.

Magnesium: 75%

Iron: 58%

Copper: 81%

Manganese: 50%

Chromium: 50%

Zinc: 67%

I tried to address a few vital minerals and if we are faced with any disease our first inclination should be to deal with the mineral deficiency. Why tackle the problem with expensive pharmaceutical products. It makes no sense.

3. CHROMIUM & VANADIUM

Their influence on Diabetes

Minerals, including magnesium, calcium, chromium, and vanadium, appear to have associations with insulin resistance or its management. Amino acids, including L-carnitine, also might play a role in the reversal of insulin resistance. Additional nutrients such as coenzyme Q10, and lipoid acid appear to have therapeutic potential.

Chromium

Chromium is an essential trace mineral nutrient. Like iron, zinc, selenium, copper, and several other essential trace minerals.

Chromium helps insulin to work efficiently. Many well-controlled clinical studies through the years show blood glucose improvements in the patients tested.

Important studies include one from the Human Nutrition Research Center of the United States Department of Agriculture conducted in 1996. Researchers in the study randomized 180 adult-onset diabetics into 3 groups of 60 each: one group received placebo twice per day, the second received 100 mcg twice daily of chromium as chromium picolinate and the third received 500 mcg of chromium as chromium picolinate twice daily. Their blood work was examined at baseline, at 2 months and at 4 months. The patients were told to remain on their anti-diabetic medications and continue with their diets and activity levels as before. The results were impressive: blood glucose, insulin levels, cholesterol and Hemoglobin A1C all decreased, with the higher dose generally (but not always) more effective than the 200 mcg.

Dietary Intake of Chromium.

Few foods are rich sources of chromium in the Western diet, the best being organ meats, mushrooms, wheat germ, broccoli and processed meats. Data from U. S. Government sources show that the great majority of Americans get less chromium in their daily diets than the amount recommended by nutrition experts. The RDA Committee recommends 50-200 mcg of chromium/day; the vast majority of Americans get less than 50 mcg/day. It is estimated that as high as 80% of all Americans is deficient in this mineral and may not know it.

Unfortunately, it is not possible to get enough chromium by food alone without excessive calories and obesity. To obtain 200 mcg by food alone, one has to take in over 8,000 calories a day. A large part of the problem has to do with processed food and the increase consumption of sugar. These ingested sugars allows less interaction between the insulin and chromium. The chromium is excreted earlier in the urine before influencing the insulin on the increase in blood sugar.

Inadequate chromium intakes from processed food, increased chromium losses due to increased sugar consumption, decreasing chromium tissue levels as we age are the main reasons as to why the majority of Americans and diabetics are deficient in chromium. Improvements in blood sugar in significant numbers of diabetics and pre-diabetics with modest chromium supplementation were observed. It should, however, take place alongside the two other proven ways of normalizing sugar: low-fat, high complex-carbohydrate of low glycaemic index type diets for weight loss/weight maintenance and regular exercise.

Assessment of Chromium Status.

Determining whether or not someone is chromium deficient cannot be done easily. Routine blood test is generally not accurate. The only generally accepted method for assessment of chromium status is to supplement an individual who has abnormalities of blood sugar, cholesterol, triglycerides or all three with the trace element. If the laboratory values improve, then chromium insufficiency is presumed.

Safety of Chromium

Chromium comes in various forms. The dietary form is called chromium tri-valent. This is non-toxic and necessary for essential body function. Chromium in its hexa-valent form is used in industries and is toxic. It is extremely difficult to poison laboratory animals with oral dietary tri-valent form of chromium. For example, cats fed 1,000 mg of trivalent chromium per day showed no signs of toxicity. The equivalent daily dose for a 150 lb person would be approximately 35,000 mg per day or 3.5 million mcg per day. In terms of the number of 200 mcg tablets, this would be 175,000 tablets per day for a human.

Forms of Chromium

There are various forms of dietary chromium. These vary in bioavailability (absorption and retention) and biological activity (ability to potentate and harmonize insulin). Inorganic chromium such as chromium chloride is unfortunately poorly absorbed (0.5-2%) and has little effect on insulin because it must first be converted into a biologically active form, which the body has a limited ability to do. The two most popular forms of organic chromium are niacin-bound chromium (also called chromium polynicotinate) and chromium picolinate. Although picolinate and polynicotinate sound alike, there are significant differences between the two compounds. Chromium Polynicotinate is actually a family of niacin-bound chromium compounds. Niacin-bound chromium such as chromium polynicotinate is also more bioavailable than chromium picolinate.

Vanadyl Sulphate

This is another trace mineral associated with sugar regulation. Vanadium or vanadyl sulphate regulates fasting blood sugar levels and improves receptor sensitivity to insulin. It is an effective mineral for treating type 2 diabetic individuals with insulin resistance.

There are studies to promote its use in Diabetes.

- Boden et al conducted a single-blinded, placebo-controlled study on the effects of vanadyl sulphate on eight male and female subjects with type 2 diabetes. The subjects were given 50 mg of vanadyl sulphate twice a day for a period of four weeks, followed by a four-week placebo phase. The results showed slight improvements in fasting glucose and hepatic insulin resistance following the treatment period. However, the level of insulin resistance was maintained throughout for those on the placebo.
- In another study, Halberstam et al gave 100 mg of vanadyl sulphate daily for three weeks to obese type 2 diabetic patients as well as non-diabetic subjects. There was a significant decrease in fasting plasma glucose and a significant improvement in insulin sensitivity in the treated patients. There was, however, no change detected in the obese non-diabetic subjects.
- Cohen et al also looked into the effects of vanadyl sulphate at 100 mg daily in type 2 diabetic patients following a three-week intervention period. His results showed a beneficial effect of vanadyl sulphate on improving both hepatic and peripheral insulin sensitivity. These effects were even sustained for another two weeks after the vanadyl sulphate supplements were stopped.

Vanadyl sulfate is a stable, inorganic form of vanadium, a metallic element used primarily as an additive in steel production. Acute exposure to the dust or fumes of vanadium or various vanadium compounds *can* be toxic to the nervous and respiratory systems, liver, and other organs. The greenish discoloration of the tongue is indeed a classic symptom of toxicity in miners, industrial workers, or others exposed to high levels of vanadium

4. COPPER

Copper is necessary for the absorption and utilization of Iron; It helps oxidize Vitamin C and works with Vitamin C to form Elastin, a chief component of the Elastin muscle fibres throughout the body; aids in the formation of red blood cells; helps proper bone formation and maintenance.

Copper enzymes include:

- Cytochrome C oxidase needed for oxidative energy production within cells;
- Superoxide dismutase,(SOD) a strong antioxidant for protection against free radicals
- Dopamine hydroxylase for producing catecholamine neurotransmitters such as dopamine and noradrenaline.
- A copper enzyme is also needed for the synthesis of adrenalin (epinephrine
- Lysyl oxidase for the production of connective tissue such as collagen and elastin for healthy skin, bones, joints and blood vessels
- Tyrosinase for pigmentation of hair and skin;
- Clotting factor V, a blood clotting factor, and
- Ceruloplasmin, an antioxidant needed for the iron metabolism.

Sometimes there is too much inorganic copper in supplements or drinking water as from acid water flowing through copper pipes. It can then accumulate in the body and lead to toxicity symptoms with signs of zinc deficiency, over-stimulation, psychosis and liver damage. But normally only as much copper is absorbed and retained as can be incorporated into these copper transport, storage and enzyme systems. The liver is the main storage organ for copper. Excess copper is normally excreted with the bile.

Deficiency symptoms

- May result in **general weakness**, impaired respiration, skin sores.

In animals the main organ systems affected by copper deficiency are bone, brain and nervous system, and heart and blood vessels. The first adverse effect of insufficient copper discovered nearly 70 years ago was anaemia from impaired utilization of iron. Infertility and spontaneous abortion also have been found. In more than 30 men and women successfully depleted by copper under controlled conditions abnormalities of the electrocardiogram, blood pressure regulation, glucose tolerance, and lipid metabolism (increased cholesterol in blood plasma) have been reported.

- Old, wrinkling and sagging **skin** is one of the signs of copper deficiency. Expensive copper peptides are being sold for the improvement of aging skin. The benefits of copper peptides for tissue regeneration were discovered by Dr. Loren Pickart in the 1970s. He found and patented a number of specific copper peptides (in particular, GHK copper peptides or GHK-Cu) that were particularly effective in healing wounds and skin lesions as well as some gastrointestinal conditions.

- The elastic fibers of **arteries** and other connective tissue need copper for tensile strength. Common examples of weak connective tissue are hernias, varicose veins and aneurysms. Aneurysms are ballooning arteries with very thin walls that easily burst. Albert Einstein and Paavo Aerola pioneering naturopath and nutritionist died of ruptured aneurysms, many individuals with white hair died of abdominal aneurysms. About 5% of autopsied Americans died of ruptured aneurysms, and another 40% have aneurysms that have not yet ruptured. *www.american-nutrition.com/ba.html

- Hair is coloured by the production of melanin in the hair bulbs. There are two kinds of melanin, eumelanin which colors the hair brown to black, pheomelanin that makes it yellow-blond to red.

Different combinations of these two kinds of melanin determine then the exact color and shade of the hair. Grey hair results when insufficient nutrients are supplied to the scalp to maintain normal melanin production in hair cells called melanocytes. Several nutrients are responsible to convert the amino acid tyrosine into melanin. The most common deficiency is with copper. A convincing demonstration has been conducted with black sheep. When their feed was alternated several times containing high and low amounts of copper, they developed alternating black and white coloured bands in their wool; also the curliness was reduced when copper was low. *Adams, R. and Murray. F.:

Minerals: Kill or Cure? Larchmont Books, NY 1974. Grey hair contains much less copper, magnesium and calcium than naturally coloured hair.

Diet recommendations: The Estimated Safe and Adequate Dietary Intake range of copper for adults of all ages and both sexes is 1.5 to 3.0 mg/day. For infants the range is 0.4 to 0.6 mg/day; this is substantially more on a body weight basis than that for adults. Usual intakes in the U.S. average 1.2 and 0.9 mg daily for men and women, respectively, with about 30% of daily diets being below 1 mg. Intakes below 1 mg have produced potentially adverse changes.

Food sources: Legumes, mushrooms, chocolate, seeds and nuts, crab, peanut butter, liver and oysters are representative of the highest. Copper absorption is relatively unaffected in comparison to iron or zinc by food type with absorption generally being in the 40 to 60% range.

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5. COLLOIDAL SILVER

It is used to protect us against the germs, since the frequent prescribed antibiotics wreck our immune system and it creates resistant superbugs. Colloidal silver is an alternative.³ It kills bacteria, fungi, and several viruses. If Big Pharma 'discovered' colloidal silver today, you can bet it would be hailed a remarkable discovery.

Colloidal silver is the product the FDA and many mainstream medical people love to hate. Listening to them you would think every person taking colloidal silver is going to turn grey with silver accumulation in their skin (argyria). It is really not possible to understand the colloidal silver issue without some background on the use of silver in the medical profession. For many centuries royal families ate and drank from silver utensils and were rarely sick. They were called 'blue bloods' because their blood had greater levels of silver in it. The Greeks and Romans used to store all of their perishable liquids in silver containers. And prior to the invention of refrigeration, it was common practice to drop a silver coin into a container of milk to retard spoilage.

French surgeon Dr. Carl Credé (1819-1892) was the first to proclaim the benefits for using silver nitrate to reduce neonatal eye infections. He was amongst the first surgeons to use silver nitrate to prevent wound infections.

Dr. William Halsted (1852–1922) is considered the most influential and innovative surgeon of past times, helping to usher in the modern era of surgery. He was the first Chief Surgeon of the John Hopkins Medical School. He pioneered the use of silver wire for hernia operations and silver foil to prevent wound-related infections.

By the late 1800s the recognition that silver was lethal to bacteria in relatively low concentrations was common medical knowledge. Between 1900 and 1940 silver was the primary antibiotic used in medical practice. Numerous studies on the antibiotic properties of silver were conducted from 1920 – 1940. Physicians mixed silver preparations in their offices and they were either taken orally or injected. The shelf life was poor, as they had no way to keep the silver particles in suspension for longer than fifteen minutes.

The unwieldy use of silver antibiotics gave way to the far easier to use sulpha drugs and eventually penicillin. At the time these compounds seemed more effective and were certainly easier to use. Now we have antibiotic-resistant strains from overuse of these drugs. And we have to use highly toxic doses of antibiotics to get a result in the bacteria that can still be killed by the antibiotics; and there is the constant threat of antibiotic-related toxicity. Bacteria do not generally develop resistance

to silver¹ unless they have a very thick wall that does not absorb it (it is effective against most gram positive and gram negative bacteria).

Silver ions bind to cell walls² and are then absorbed into the single-cell bacteria or fungus wherein they interfere with cellular energy production and kill the organism. The fermentation system of energy production used by these single cell organisms is different than the aerobic energy producing system of human cells, which are not so affected by silver. This means silver is not toxic to human cells.

A leading authority on the use of medicinal silver (A.B.G. Lansdown, PHF, FRCPath, Honorary Senior Lecturer, Department of Chemical Pathology, Faculty of Medicine, Imperial College, London, UK) stated after reviewing all available silver literature of the past 200 years, 'Metallic silver and silver compounds are used widely in medical devices and health care products to provide antibacterial and antifungal action. Experience has shown that they are generally safe in use and effective in controlling pathogenic organisms.'

Silver in today's medicine is undergoing a renaissance, with innovative new products that are able to sustain the release of silver ions enabling better surgical and wound-related uses. Silver nanoparticles are even being incorporated into clothes, like socks and stockings. You can buy a washing machine that uses silver ions to kill germs in clothes.

The high efficacy in the use of silver to kill bacteria and fungus is not in question by anyone. This does not mean it kills every type of bacteria or fungus. And in the ones it does kill it does not mean it kills all of them. It simply means that the antibiotic properties of silver are quite potent – and the risk to human health in terms of toxicity is negligible. This is a far better risk/benefit profile than commonly used antibiotics.

The Coming of Colloidal Silver

In the early 1990s researchers figured out how to attach small particles of silver to protein, thereby allowing the formation of a true colloidal silver with an indefinite shelf life. In my opinion this invention was as profound as the original discovery of penicillin.

For the very first time an easy, convenient, stable, and effective form of silver had been prepared. One can only imagine if the doctors a century ago had this tool at their disposal. I was one of the first to extensively use this preparation in clinical practice.

Colloidal silver may be marketed as a dietary mineral supplement. The issue is complicated by the fact that not all colloidal silver products are of the same quality. Products made at home or by the use of electrical charges to ionize and suspend the silver are products not worth taking. They are typically clear in colour, are lucky to have any potency after two weeks, and run a much higher risk for silver depositing in the skin (argyria).

True silver colloids are very difficult to make. They are brownish in colour as the silver particles block light. The chances of them causing argyria, even with long-term use, are remote. I find it rather fascinating that the alarm bells of regulatory authorities scare consumers into believing that if they take colloidal silver it is dangerous and their skin will turn gray. There are a few case reports in the literature of argyria occurring from colloidal silver use. In one case a lady consumed 1 litre a day for over a year⁴ and then had a problem. In another case, it was use of the cheap home-made electrically-produced⁵ colloidal silver that was the problem. And in another case it was regular consumption of colloidal silver for over a year⁶. Problems are rare considering all the people using colloidal silver. The common thread is cheap silver products used in high amounts for extended periods of time.

It is obvious from all the silver literature that if there is prolonged exposure in high amounts of silver then there could be a problem. The solution to this problem is rather simple. Use a quality product

from a reputable company and do not use colloidal silver on a daily basis for an extended period of time.

Using Colloidal Silver as an Immune Support Nutrient

The amount of colloidal silver required to kill any bug is unknown. Modern research suggests⁷ that most pathogenic organisms are killed in the test tube at concentrations of 10–40 ppm, with some requiring up to 60 ppm.

I never suggest using colloidal silver as a daily preventive product and I never suggest using it on an ongoing basis for anything. Colloidal silver taken daily will disturb the friendly balance of flora in your gut – albeit not anywhere near as badly as antibiotics will (because colloidal silver also kills yeast). If you find that you want to take it daily for a while then be sure to take some acidophilus at a different time and other GI support as needed.

When you understand that nothing is guaranteed and you understand that the product is nontoxic when used as directed (and not longer than two weeks), then in my opinion the best time to try it is at the onset of any bug. 1-2 tsp is generally used as the first dose, repeated in a few hours and every few hours if needed (up to four times per day). You can also use a nasal spray bottle to spray it up into your sinuses, if needed. Some have used it as ear drops or eye drops quite successfully. If doing eye drops I would recommend a fresh bottle.

The typical response based on clinical experience is that well over half the time, and more likely greater than 70% of the time, whatever bug seemed to have a toehold in you is completely gone. If you don't get that benefit, well, it didn't work that way for you. It is somewhat hard to believe that anything can potentially work so well, yet it often does.

Colloidal silver is not an anti-viral

Think of colloidal silver as a tool in your immune support toolbox. In actual practice, it is one of many things you may consider taking if you are fighting a bug. It certainly does not replace appropriate medical care, nor does any immune support nutrient. Most people aren't going to go running off to their doctor at the first sign of a bug. Consider this time a window of opportunity to see if you can get the upper hand. You have many options, and colloidal silver is one of them.

Colloidal silver is to bacteria what cyanide is for all red blooded organisms. In red blooded organisms, cyanide binds with haemoglobin in place of oxygen, and makes it impossible for blood to carry oxygen. With enough cyanide, oxygen starvation via cyanide bonded haemoglobin causes death. Colloidal silver does the same for bacteria, it binds with the oxygen carriers in bacteria permanently, causing bacteria to quickly die from oxygen starvation.

Viruses have no metabolic processes which require an oxygen carrier, and therefore Colloidal Silver will be useless against a virus as Ebola. Colloidal silver is only useful for treating secondary bacterial infections that move in after a preceding viral infection and in the case of Ebola, there is not enough time for that to make a difference.

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6. SELENIUM

How many diseases can it beat?

A single nutrient - selenium - has been shown to hold great promise in the war against cancer, and may also help to combat conditions as diverse as infertility, dementia, low thyroid function and Aids. On Christmas Day 1996, a scientific study was published which demonstrated selenium's ability to halve deaths due to some cancers. Since then the focus of much scientific research, it is clear that selenium's health-giving properties are nothing short of remarkable.

So, what is known about selenium's effects in the body, and how can it be used to enhance disease prevention?

Selenium is what is known as a 'trace mineral' - a nutrient which is only required in very small amounts by the body. Despite the fact that we don't need much of it, the importance of selenium intake is no more starkly demonstrated than in the case of cancer.

At the heart of the cancer-causing process are destructive molecules called 'free radicals' - by products of the reactions which generate energy in the body. By damaging sensors on the surface of the cell or the DNA within it, they can trigger the development of cancerous cells. Another effect free radicals have is to suppress the body's immune system.

Fortunately for us, free radicals are controlled in the body by antioxidants. Selenium is known to have potent antioxidant activity, which in theory should give it cancer protective effects.

However, selenium has another trick up its sleeve: it stimulates the immune system, and so appears to help the body kill off very early tumours.

- Since the Seventies it has been noted that individuals with the lowest intakes of selenium have the highest risk of dying from cancer. However, the 1996 selenium study was the first research to look at whether or not taking selenium could reduce cancer risk. This study involved more than 1,300 individuals, all of whom had a history of skin cancers other than the melanoma type. Half the group was given selenium as a supplement, the other half a placebo (inactive pill).

After about four years it was found that the group taking selenium had half the risk of dying from cancer compared to those taking placebos. While selenium had no effect on skin cancer risk, it did bring about very significant reductions in the risk of cancers of the prostate, colon, lung, etc.

A European study is now under way which will look at the effect of selenium on cancer risk in 42,000 individuals. If the trial's findings, due to be announced in five years' time, prove as positive as the researchers expect, selenium will establish itself as an effective anticancer agent.

- Recent research also suggests that selenium may well have a significant role to play in the prevention of another killer - Aids. Those with low levels of selenium in their bodies are nearly 20 times more likely to die from Aids. Selenium has a vital role in our immune system, though not all of the details are well understood. Selenium is important for the activity of the antioxidant enzyme glutathione peroxidase, but it is also important for preventing blood coagulation reactions. A severe deficiency of selenium causes blood coagulation leading to haemorrhaging, a reaction which has been seen in animals infected with haemorrhagic viruses.¹

Though we don't have a lot of experience with Ebola virus, many lessons can be learned from another RNA virus, the HIV virus. Both of these viruses mutate quickly because there is not as much translational error-checking with RNA as there is with DNA. Both of these viruses thrive in West Africa in areas known to have selenium-deficient soil. Both of these viruses appear to make selenoproteins¹ (proteins that contain selenium bound as selenocysteine). When the infected person has a high selenium status, as well as an overall high antioxidant state, viral replication is slowed, but when selenium status is low or deficient, it causes the virus to multiply furiously, and also causes more mutations leading to even more virulent strains. Experiments with animals have demonstrated that fairly benign viruses can mutate into much stronger viruses when a selenium-deficient host is infected.²

The selenium status of the infected person affects the outcome of the viral infection. This effect may be direct effects on the virus as well as indirect effects via strengthening the immune system. For HIV-infected people, better selenium status lead to fewer hospitalizations and lower mortality.³ A randomized, placebo-controlled trial showed that selenium protected HIV patients from an increased

viral load and increased the number of CD4+ T cells.⁴ A follow-up study by the same research group found that a combination of B vitamins, vitamin C, and selenium cut the risk in half of HIV-positive patients in Botswana from a critically low CD4+ T cell count, or from progression of the disease.⁵ Selenium has received enough research attention that low selenium status is accepted as a risk factor for the spreading of HIV virus as well as for worsening health outcomes for infected people. How is this related to the Ebola virus? Selenium was used during an outbreak of haemorrhagic fever in China. Doctors used 2,000 µg a day of sodium selenite for 9 days to treat fast progressing (fulminant cases) and severe cases. Mortality decreased from 100% in the untreated group to 36% in the treated group for the fulminant cases and from 22% in the untreated severe cases to 0% in the selenium-treated severe cases.⁶ So, selenium has already been successfully used to prevent depletion of selenium in response to haemorrhagic fever. The lead doctor of the study, Dr. Hou of the Chinese Academy of Medical Sciences said that if selenium had been given by injection more lives would probably have been saved in the fulminant cases, because they had so much internal bleeding that they could not absorb or retain the oral dose of selenium.⁸ It is better to begin supplementation before total immune system compromise.

- Another important function of selenium relates to its role in reproduction.

Selenium has long been used in the world of animal husbandry to prevent miscarriage.

Women prone to miscarriage tend to have low levels of selenium in their systems.

Selenium seems to play a part in male fertility, too. One study demonstrated that supplementation with this nutrient increased fertility in a group of men with poor sperm quality.

- Selenium also has a role to play in the functioning of hormones manufactured by the thyroid gland. Selenium may help individuals with low thyroid function, including those taking thyroxine medication.

- The multifaceted benefits of selenium even extend to the brain. Selenium plays a part in the manufacture of brain chemicals known as neurotransmitters, and low levels of selenium in the elderly are linked with an increased risk of dementia and senility.

- Chinese scientists showed that children living in selenium-deficient areas were suffering from a cardiomyopathy known as Keshan disease. The symptoms of the disease were reversed when selenium was added to the diet. These discoveries led to expansive research investigating further unknown roles of selenium within the human body. You have all heard news reports about young athletes dying each year of cardiomyopathy heart attacks, yet the only known cause of cardiomyopathy is a selenium deficiency. Evander Holifield was once banned from boxing because of his heart. His physician put him on a selenium supplement and he soon passed the cardiogram and went back into boxing.

So, where is this most versatile of nutrients to be found? The best food sources are kidneys and Brazil nuts. Other reasonable sources include shellfish, fish, liver, red meat, poultry and wheat.

However, anyone wanting to ensure an adequate intake of selenium would do well to consider supplementation.

The recommended daily dose of selenium usually is 200 micrograms a day.

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7. **SILICON** - (Diatomaceous Earth)

Enhances our skin texture

Silicon is known as a beautifying mineral and there are also many health benefits associated with it. It not only causes the strengthening of connective tissues and bones, but is also useful in taking care of nails, hair and skin.

Our best chance of looking radiant, with or without wrinkles, is to anti-age from the inside out. Many minerals will help repair skin ageing, but it is inevitable that our skin will age, and much depends on our lifestyle too. Choices such as smoking, high alcohol consumption and sun worshipping, sun beds and aggressive skin peels as well as a poor diet, low in nutritional value will age our skin more than anything no matter how much fancy face cream and nutritional supplements we use.

These are the most valuable minerals to beautify our skin.

The health benefits of silicon also play a vital role in the prevention of atherosclerosis, insomnia, skin disorders and tuberculosis.

It is not Silicon Valley!

After oxygen, silicon is the most abundant element present in the earth's crust. It is present in clay and sand and also exists as a major part of rocks like quartz and granite. Silicon is the second most available element found in the earth's crust, and it is one of the most important elements used in high tech devices and semiconductors. Silicon is a vital trace mineral required by the body for strong and flexible joints, glowing skin and stronger bones. It is basically present in the human body in the form of either a derivative of silanate or silicic acid. The mineral is highly concentrated in hair and nails, and is present in skin, teeth, connective tissue, muscles, bones, cartilage and lungs. Silicon is completely nontoxic and is vital in cellular repair.

Deficiency Symptoms of Silicon

The deficiency symptoms of silicon are quite apparent as they are closely associated with the connective tissues. Along with the poor development of bones, this deficiency also causes thinning of the hair, brittleness of nails and formation of wrinkles and general aging of the skin.

A silicon rich diet combats decreasing bone density, which lead to osteoporosis but this mineral is sadly declining in our diets due to modern farming methods. It is also found less and less in our bodies as we grow older, so there is a greater need for it in our diet as we age to combat many degenerative conditions.

Sources of Silicon

Silicon is rich in certain foods such as cucumber, radishes and tomatoes as well as bell peppers and marjoram, apples, raw cabbage, carrots, onions. Higher quantities are found in hard water and comparatively less in soft water. The best source is Diatomaceous Earth with all its associated benefits.

Health Benefits of Silicon

Earlier in human history, silicon was not regarded as a physiologically important element due to its substantial presence in the animal and plant tissues. However, with ongoing research, the health benefits of silicon have been clearly demonstrated.

- **Prevents Deformities in Bones:** Silicon has been found to play a vital role in assisting calcium for the growth and maintenance of joints and bones. It induces flexibility in the bones by increasing the amount of collagen, which is the protein component of bones. It also increases the rate of healing of bone dislocations and fractures.
- **Prevents Alopecia:** Alopecia, or thinning of hair, is caused due to the intake of a refined diet that lacks nutrients, specifically silicon. The health benefits of silicon encourage the growth of thick and healthy hair. It also increases the lustre and shine of hair.

- **Maintains Skin Appearance:** Silicon prevents the skin from becoming flabby and restores the natural glow of the skin. It helps in brightening the eyes as well. It also prevents several serious skin problems.
- **Helps the Healing Process:** Silicon plays a key role in protection against many diseases like tuberculosis and the others which are related to mucous membranes. It also helps in increasing the healing rate during fractures.
- **Prevents Aluminium Toxicity:** It has been found that higher amounts of aluminium are found in the brain lesions of patients suffering from the Alzheimer's disease. It has been discovered that silicon, through its bonding with aluminium, prevents the absorption of the latter in the gastrointestinal tract, and can reduce the signs and symptoms of aluminium toxicity.
- **Restores Mucosa:** The health benefits of silicon include the restoration of mucosa of the respiratory tract if the body is suffering from dehydration.
- **Prevents Brittle Nails:** Silicon plays a very significant role in the maintenance of nail health. Silicon helps in improving the quality of nails and protecting them against several nail infections so your fingers remain attractive and strong.
- **Helps Strengthen Bones:** Silicon is necessary for the maintenance of skeletal health. It elevates the deposition of different minerals like calcium in the bone tissues. Dr. Barbara Hendel says that it was established in 1940 that life could not exist without silica and water. Silica plays an important role in many functions of the body, especially the Absorption of Calcium and other minerals absorption of calcium and other minerals. Dr. Hendel says silica is the most important trace element in human health. The average human body is said to hold about seven grams of silica, many people are thought to be silica deficient. For example, silica is said to be crucial for calcium absorption. A deficiency would, therefore, cause calcium deposition in soft tissue and joints leading, for example, to frozen shoulders, arthritis and hardened blood vessels. Thus, many people who are calcium deficient and take calcium supplements while being silica deficient run the risk of their calcium supplementation acting negatively in their bodies.
- **Prevents Atherosclerosis:** The formation of hard plaque in the arteries causes atherosclerosis. Recent researches on rabbits have revealed that silicon supplements decrease the formation of plaque, and subsequently reduces the risk of various cardiovascular diseases, including heart attacks and strokes.

So silica or silicon is not just for a pretty face, and it helps to combat ageing in many ways. This makes it useful in an anti-ageing programme both for your looks and your overall wellbeing.

8. ZINC

Zinc is a component of more than 80 enzymes. The adult body contains about 2-3 grams of zinc. Zinc is found in all parts of the body: Muscles and bones contain most of the body's zinc (90%). Zinc is found in the highest concentration in the middle ear and cochlea, the eye, the brain, and in the prostate and sperm.

- Zinc vital for your **brain function**

High concentrations have been found in brain hippocampus, and many medical researchers believe that zinc is a neurotransmitter. Zinc deficiency can result in irritability, anger episodes, impaired immune function, acne, stunting of growth, poor taste and smell sensitivity, and impaired wound healing. There is a high incidence of zinc deficiency in people labelled with ADD, autism, depression, schizophrenia, eating disorders and bipolar disorders. Zinc is far more important than often recognized, and low levels of zinc are associated with behaviour disorders.

A large percentage of behaviour disordered persons exhibit abnormal levels of copper, zinc, lead, cadmium, calcium, magnesium and manganese in blood, urine, and tissues. This appears to involve a

malfunction of the metal-binding protein, metallothionein. Most of these patients have symptoms of zinc deficiency along with depressed levels of zinc in their blood plasma.

The high incidence of zinc deficiency in assaultive young males was found in a study by WJ Walsh presented at the Neuroscience Annual Meeting in 1994. He found elevated serum copper and depressed plasma zinc concentration, compared to normal controls. This study confirmed the clinical observations of the Pfeiffer Treatment Centre showing zinc depletion in more than 4,000 behaviour disordered patients. Clinical observations and research indicate the copper/zinc ratio appears to be more important than either copper or zinc levels alone. Zinc deficiency often results in elevated blood levels of copper, due to the dynamic competition of these metals in the body. Elevated blood copper has been associated with episodic violence, hyperactivity, learning disabilities, and depression. Zinc is antagonistic to cadmium, lead, and mercury.

- Zinc - vital for **growth** and cell division.

Zinc is especially important during pregnancy, for the growing foetus whose cells are rapidly dividing. Zinc also helps to avoid congenital abnormalities and pre-term delivery. Zinc is vital in activating growth - height, weight and bone development - in infants, children and teenagers.

- Zinc – vital for **fertility**.

Zinc plays a vital role in fertility. In males, zinc protects the prostate gland from infection (prostatitis) and ultimately from enlargement (prostatic hypertrophy). Zinc helps maintain sperm count and mobility and normal levels of serum testosterone.

In females, zinc can help treat menstrual problems and alleviate symptoms associated with premenstrual syndrome (PMS).

- Zinc – vital for the **immune system**

Amongst all the vitamins and minerals, zinc shows the strongest effect on our all-important immune system. Zinc plays a unique role in the T-cells. Low zinc levels lead to reduced and weakened T-cells which are not able to recognize and fight off certain infections. An increase of the zinc level has proven effective in fighting pneumonia and diarrhoea and other infections. Zinc can also reduce the duration and severity of a common cold.

- Zinc – vital for **taste**, smell and appetite

Zinc activates areas of the brain that receive and process information from taste and smell sensors. Levels of zinc in plasma and zinc's effect on other nutrients, like copper and manganese, influence appetite and taste preference. Zinc is also used in the treatment of anorexia.

- Zinc – vital for **skin**, hair and nails

Zinc accelerates the renewal of the skin cells. Zinc creams are used for babies to soothe diaper rash and to heal cuts and wounds. Zinc has also proven effective in treating acne, a problem that affects especially adolescents, and zinc has been reported to have a positive effect on psoriasis and neuro-dermatitis.

- Zinc is also used as an **anti-inflammatory** agent and can help soothe the skin tissue, particularly in cases of poison ivy, sunburn, blisters and certain gum diseases.

- Zinc is important for healthy **hair**.

Insufficient zinc levels may result in loss of hair, hair that looks thin and dull and that goes grey early. There are also a number of shampoos which contain zinc to help prevent dandruff.

- Zinc is vital for **vision**.

High concentrations of zinc are found in the retina. With age the retinal zinc declines which seems to play a role in the development of age-related macular degeneration (AMD), which leads to partial or complete loss of vision. Zinc may also protect from night blindness and prevent the development of cataracts.

Foods rich in zinc

We get zinc primarily from our food. The major sources of zinc are red meat, poultry, fish and seafood, whole cereals and dairy products. Zinc is most available to the body from meat. The

bioavailability of plant-based foods is generally lower due to dietary fibre and phytic acid which inhibit the absorption of zinc. Vegetarians are very susceptible to Zinc deficiency.

How do we treat a deficiency?

Suspect a deficiency in any person who exhibits any of the above symptoms

Indiscriminate dosages of zinc to persons who do not need it can cause anaemia and imbalanced trace metals.

Absorption of dietary zinc into the bloodstream is usually about 35-45% efficient, but malabsorption syndromes can reduce zinc uptake to about 10-15%.

Once in the bloodstream, zinc concentrations are controlled by the metal-binding protein, metallothionein. Many persons with zinc deficiency appear to have a metallothionein disorder.

Treatment of mild or moderate zinc depletion can take months to complete. Some cases of severe zinc depletion require a year or more to resolve.

The average American typically consumes 10mg of zinc a day which is one third less than the RDA. Zinc deficient individuals usually respond well to supplementation. Many patients who previously experienced years of counselling, psychotherapy, aggressive medication programs, and/or residential treatment become greatly improved and respond to less intensive therapies. Zinc deficiency can be corrected, but not cured. If treatment is discontinued, zinc deficiency usually will re-emerge with all symptoms gradually returning.

Zinc deficiency, like diabetes, requires lifelong treatment.

NATURES HEALING COMPOUNDS

1. ASTAXANTHIN



Astaxanthin is a generally unknown carotenoid, which is now believed to be the most potent antioxidant nature has to offer us. Scientists long ago discovered that a class of naturally occurring pigments called carotenoids held powerful antioxidant properties that are crucial for your health. Carotenoids are the compounds in your foods that give you that vibrant wealth of colour—from green grasses to red beets, to the spectacular yellows and oranges of your peppers. It has the power to protect your heart, eyes, skin, joints and central nervous system as well as to boost immunity, to reduce inflammation, and improve brain function.

Astaxanthin is a naturally-occurring carotenoid. It is swallowed by the shrimps, lobsters, crabs and even the salmon. Carotenoids are pigment colours that occur in nature and support good health. Beta carotene a pigment is found in carrots making it orange in colour. Likewise Astaxanthin is red, and make salmon, crab, lobster and shrimp flesh turn pink. In the animal kingdom, astaxanthin is found in the highest concentration in the muscles of salmon. The most common sources of astaxanthin are in the phytoplankton called *Nannochloropsis oculata*, and it is consumed by the fresh marine creatures and flamingos that eat the algae. Astaxanthin is found in microalgae, yeast, salmon,

trout, krill, shrimp, crayfish, shellfish, and it colours the feathers of the flamingos. Professor Basil Weedon's group was the first to prove the structure of astaxanthin by synthesis, in 1975. Scientists theorize astaxanthin helps provide the endurance these remarkable fishes like Salmon need to swim upstream.

For humans, astaxanthin is a powerful antioxidant with broad health implications and unlike other antioxidants, such as beta carotene, zeaxanthin, vitamin E, C, D and selenium.

Astaxanthin never becomes a pro-oxidant in the body. ^{23, 24, 25, 26}

Krill supplements contain trace amounts of astaxanthin, not nearly what you need to achieve the therapeutic benefits discussed today. Here are some reasons to take astaxanthin supplements every day:

- **Astaxanthin Can Help Relieve Pain and Inflammation** Astaxanthin is a potent anti-inflammatory and pain reliever, blocking different chemicals in your body that make you scream of pain. More than that, astaxanthin reduces the inflammatory compounds that drive many chronic diseases. Even though it's 100 percent natural, astaxanthin works like some prescription analgesics, but without the risk of addiction, GI bleeds or heartburn. More specifically, astaxanthin blocks COX 2 enzymes just like some anti-inflammatory drugs do for osteoarthritis, Rheumatoid arthritis, acute pain and monthly dysmenorrhea. ¹ Natural astaxanthin not only affects the COX 2 pathway, it suppresses serum levels of nitric oxide, interleukin 1B, prostaglandin E2, C Reactive Protein (CRP) and TNF-alpha (tumour necrosis factor alpha), and all of this has been proven. ¹ Natural astaxanthin was shown to reduce CRP by more than 20 percent in only 8 weeks; there is not a prescription drug I know of that does that. ²¹ Even the American Heart Association claims CRP is a key indicator of heart disease. ²²
- **Astaxanthin Helps Fight Fatigue.** Astaxanthin provides excellent recovery from exercise. ¹⁷ Just like salmon making the heroic upstream swim, astaxanthin can help athletes do their best. Pure natural astaxanthin is indicated for recovery of muscles, better endurance, enhanced strength and improved energy levels. ^{18, 19, 20}
- **Astaxanthin Supports Eye Health** Remember the famous song, 'I can see clearly now, the rain is gone... .' Well, I associate that song with astaxanthin. It has the unique ability to cross through a barrier and reach your retina. Well-designed clinical trials have shown that astaxanthin helps diabetic retinopathy, macular degeneration, eye strain and fatigue and seeing in fine detail. There are well-designed positive human clinical trials supporting eye health. ^{4, 5, 6, 7, 8, 9}
- **Astaxanthin Cleans Up the Cells** Astaxanthin is in a class of its own when it comes to antioxidant coverage, because it filters into every cell of the body. Its unique molecular lipophilic and hydrophilic properties allow it to span the entire cell, with one end of the astaxanthin molecule protecting the fat-soluble part of the cell and one end protecting the water-soluble part of the cell. You might think of it as giving your cell a full-body hug. Natural astaxanthin is exceptionally powerful in singlet-oxygen quenching. A 2007 study analysed several popular antioxidants and their antioxidant power. ¹⁰ This study found astaxanthin was 6,000 times stronger than vitamin C, 800 times stronger than CoQ10, 550 times stronger than green tea catechins and 75 times stronger than alpha lipoic acid.
- **Gorgeous Skin and Sunscreen Protection** Astaxanthin has been shown to protect the body's largest organ. The studies are clear and consistent and show excellent results for helping with skin moisture levels, smoothness, elasticity, fine wrinkles, and spots or freckles. ¹² Do you have fair skin that tends to freckle, so take astaxanthin, in part because it reduces damage caused by ultraviolet radiation from the sun. In fact, if you get a sunburn, which causes inflammation, astaxanthin penetrates the skin cells and reduces UVA damage. Think of it as an internal sunscreen. Other than skin benefits, I love astaxanthin because it relieves my minor aches and pains from yoga, dance, hiking, kayaking and whatever else I get into in the name of fun.

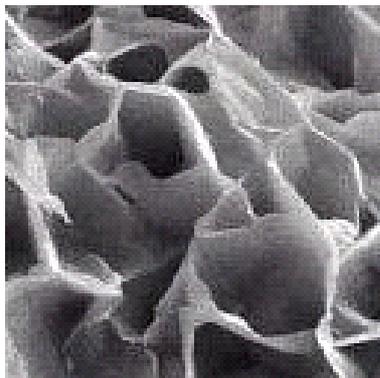
Best Astaxanthin Sources

Wild Pacific salmon, especially sockeye salmon, have the highest astaxanthin content. However you'd have to eat about 6 ounces (165 grams) daily to get a 3.6 milligram dose.¹¹ Since studies show that doses greater than that provide anti-inflammatory benefits, does I always suggest an astaxanthin supplement, up to 12 mg a day.

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2. BENTONITE CLAY



Though they have been largely forgotten in recent times, healing clays have been used by cultures throughout history for their nutrients and to help rid the body of toxins. Clay has been used medicinally and is still used by indigenous people around the world. It was used in clay baths as a form of 'mud therapy,' and various types include kaolin, smectite, bentonite, montmorillonite, Pascalite and Fuller's earth. It is trusted to clarify your wine and to remove all the toxins.

Bentonite Clay is composed of aged volcanic ash. The name comes from the largest known deposit of Bentonite Clay

located in Fort Benton, Wyoming. Bentonite Clay is unique. Its clay cleanses our body like a magnet, as it has the ability to draw the toxins from your body. It has an 'electrical charge' when it's hydrated. Upon contact with fluid, its electrical components change, giving it the ability to absorb toxins. Bentonite is known for its ability to absorb and remove toxins, heavy metals, impurities, and chemicals.

It possesses remarkable healing powers. When it is used topically, it is known for its ability to draw infections from wounds in a matter of hours or days, thereby bringing about total recovery. The first recorded use of Pascalite was in the early 1930s when a trapper named Emile Pascal set his traps near a cold, clear mountain lake, where he had noticed a large number of animal tracks; after getting some of it on his chapped hands, he noticed some time later that it appeared to help them. So he continued to experiment with the substance and found that it had a number of topical uses, including for burns, minor wounds and infections. Bentonite clay is able to clean out the liver, colon, and skin, as well as 'balance bacteria' in the digestive system and strengthen the immune system. Various other claims include its ability to treat food allergies, food poisoning, viral infections, and even parasites. Though the clay is filled with certain minerals like magnesium, and nearly 67 other trace minerals. Bentonite is a swelling clay. When it becomes mixed with water it rapidly swells open like a highly porous sponge. From here the toxins are drawn into the sponge through electrical attraction and once there, they are bound.'

On a molecular level, Robert T. Marin, a mineralogist, points to Bentonite's minute particle size that creates a large surface area in proportion to the volume used. 'The greater the surface area, the greater its power to pick up positively charged particles of ions.' Mr Marin stated that one gram of this clay has a surface area of 750 square meters. 1 gram of bentonite clay can cover your entire GI tract, more than 400 times. Thus, the greater the surface area, the greater the power to pick up positive charged ions, many times its own weight. Activated charcoal has around 500 square meters per gram.

The pH of bentonite clay is around 9.7, and thus it acts as an alkalinizing agent for the body. The pH scale goes from 0 to 14, with 7 being neutral. Below 7 is acid and above 7 is alkaline. Clay helps balance the body's pH level. Clay baths are increasing popular for detoxing, cleansing the skin and

balancing the bodies' pH levels. Bentonite also helps get oxygen to cells as it pulls excess hydrogen and allows the cells to replace it with oxygen instead.

Some studies have shown, however, that certain antibacterial clays are actually effective in treating diseases. In 2010, a study about the medicinal use of clay minerals wrote in its conclusion; 'in this era when bacteria are developing antibiotic resistance to existing pharmacological agents, the potential for discovery of new broad-spectrum antibacterial agents, such as natural clay minerals, to combat pathogenic bacteria would be particularly advantageous.'

In a study from Arizona State University, bentonite clay was found to be highly effective at killing MRSA as well as Salmonella, E. coli and others. What is promising though as research continues in this area is that depending on the method in which the clay kills the infection, it may not be possible for the MRSA or other bacteria to develop a resistance to it as it does with antibiotics.

Eating clay is getting a lot of buzz lately in Hollywood and all around the world. The practice is covering new ground in the world of eating healthy and organic, and lately to lose weight. Clay binds to other material in your body and helps your body excrete those materials that are not necessarily the best for you like toxins and heavy metals and what not. The clay you are eating is not from your backyard. Drinking this clay mixture is actually something that's been done for centuries all over the world as a way to remove toxins and heavy metals from your body.

You use a small amount of clay and a large amount of water, and that's kind of the general idea is that it creates a little bit of a sludge to kind of draw toxins to it. You have to be careful not to drink too much of it at one time, and starting with 1 spoon at night before retiring, is a step in the right direction. Make sure the clay powder is a high quality supplement that does not contain any toxic element.

If you have any kind of food allergies or food sensitivities, you'll have swelling. That compounds the problem causing constipation and it will inhibit the body's ability to eliminate these toxins. When this happens, the toxins then get stuck in your gut or your colon and that can cause more problems.

Aside from attracting positively charged toxins from your internal systems, bentonite clay benefits include a multitude of other valuable effects. When taken orally, it has an outstanding cleansing capacity. It pulls away built-up refuse and plaque that block the absorption of essential nutrients from food and supplements. This action alone can raise your energy level in as little as 1 to 3 days. The three main reasons bentonite clay benefits are great for boosting energy are as follows:

- It absorbs...
- It revitalizes...
- It acts as a catalyst for the transformation of food into usable energy.

Bentonite clay benefits have a big-picture effect, too. Once in the body, it:

- Cleanses the liver, colon, and skin
- Balances bacteria in the digestive tract
- Strengthens the immune system
- Aids the assimilation of nutrients
- Re-mineralizes cells and tissues
- Alkalizes the entire body (very important since over-acidity leads to disease)
- Protects the body from radiation
- A wonderful weight loss tool

Internal Liquid Bentonite Clay

Taken internally, liquid bentonite supports the intestinal system in the elimination of toxins. Liquid bentonite is inert which means it passes through the body undigested.

Bentonite clay is made up of a high number of tiny platelets, with negative electrical charges on their flat surfaces and positive charges on their edges. When bentonite clay absorbs water and swells up, it is stretched open like a highly porous sponge. Toxins are drawn into these spaces through electrical attraction and bound. In fact, according to the Canadian Journal of Microbiology (2), bentonite clay can reportedly absorb pathogenic viruses, as well as herbicides and pesticides. The bentonite is eventually eliminated from the body with the toxins bound to its multiple surfaces. The best way to drink bentonite is on an empty stomach, or at least 1 hour before or after meals. Bentonite typically is available as a thick tasteless grey gel, but it also comes encapsulated, as well as in powder form. It is generally advisable to start with 1 tablespoon of bentonite clay daily, mixed with a small amount of juice. Pay attention to the results for a week, then gradually increase the dosage to no more than 4 tablespoons daily, in divided doses. In my opinion, the best price for high quality bentonite can be found here. Drinking bentonite clay should be part of your regular colon cleansing regimen. You will benefit from greater assimilation because of the bentonite clay's action as an intestinal cleanser and gastrointestinal regulator. As your body 'cleans house', it is in a better position to more efficiently assimilate the nutrients it needs, whether those nutrients come from your healing diet, vegetable juicing or cod liver oil and any other supplements.

Bentonite clay and diarrhoea

Diarrhoea can be remedied through the use of bentonite clay because of its ability to bind stools. Bentonite clay can take effect right away by binding to irritants in the gastrointestinal tract. It's a good idea to mix the bentonite clay with 1 cup of applesauce, which not only makes the clay more palatable, but also adds pectin, which is another binding agent.

Clay baths

Because the body detoxes through the skin, clay baths are becoming more and more popular in drawing out impurities and cleansing the skin. The optimum results for clay baths are obtained by immersing oneself in a tub of very warm/hot water mixed with a very pure Bentonite clay for 30 minutes. Not just any clay will do. It is crucial to use 'clean natural clay.'

One of the most amazing effects of clay baths in particular is the ability of the clay to stimulate the lymphatic system. The more clay we use, the more powerful the response. Sprinkle 1 to 4 cups or more of powdered clay into the bathtub and then run very hot water over the clay. Use a whisk to stir the clay around and to help it dissolve. After it is mixed well start adding cooler water until the water reaches the desired temperature. Bentonite clay has so many uses, and I do invite you to study them.

3. BLACK CUMIN SEED

Sometimes the Biblical reference to 'faith the size of a mustard seed moving mountains' comes to mind in connection with natural substances like black seeds. After all, do seeds not contain within them the very hope for continuance of the entire species that bore it?

If we understand the true nature of the seed, how much life (past, present and future) is contained within it, it will not seem so far-fetched that it is capable of conquering antibiotic resistant bacteria, healing the body from chemical weapons poisoning, or stimulate the regeneration of dying insulin-producing beta cells in the diabetic, to name but only a fraction of black seed's experimentally-confirmed powers.

Rain's flagship product is called **SOUL** is the food that tries to capture the full potential of the seed, and it does it spectacularly, and they have no competitive product to even get close to it. Imagine tiny seeds containing 20-30X the nutritional potency of the fruit it yields. The seed is only 2% of the weight but it contains 50% of the nutritional value of the fruit. SOUL contains the following seeds: Black Cumin, Black Raspberry and Chardonnay Grape Seed.

One sachet (60 ml) of SOUL has an ORAC (Oxygen Radical Absorbance Capacity) of 5,238 the highest of all antioxidants on the market today. In fact, the seeds contains 40 times more antioxidant potency than the surrounding fruit tissues. Did you know our high ORAC value assist your DNA. Right now there is a civil war going on inside every cell in your body. On one side of the battle, your regular' DNA, which provides the day-to-day instructions for life. On the other side: tiny bits of rogue DNA that hide like spies between genes in your own DNA. From time to time, these rogue bits of DNA spin off a copy of themselves and 'jump' to another DNA location – often causing harmful mutations when they land, which can promote diseases such as cancer, diabetes – only to mention a few. *University of Michigan Research Centre

SOUL has been hailed as one of the most important anti-aging supplements ever discovered. The amount of antioxidants in your body is directly proportional to how long you live.

The secret is in the seed's chemistry. These seeds are bursting with healthy and nutritive elements that help promote a strong and effective body. Elements like antioxidants, enzymes, Omega-3, and Omega-6! SOUL's exclusive formula of organic ingredients, contains the most natural, absorbable forms of many vital nutrients. Potent antioxidants, Omega 3 and 6, All 8 natural forms of Vitamin E, Natural form of Resveratrol. Resveratrol, found in the Chardonnay Grape, may also enhance heart, muscle, brain, and kidney health. Therefore, the fact that Resveratrol helps to boost the synthesis of collagen is a great boon when fighting aging, and to help maintain a young looking skin. It has been hailed as one of the most important anti-ageing supplements ever discovered.

The 'Black Cumin Seed' is recorded in the Bible. ^{Isaiah 28:25} The seed of the annual flowering plant, Nigella Sativa, have been prized for their healing properties for the past 3000 years. While frequently referred to as Roman coriander, black sesame, black cumin, black caraway and onion seed, it is known today primarily as black seed, which is at the very least an accurate description of its physical appearance.

The earliest record of its cultivation and use come from ancient Egypt. Black seed oil, in fact, was found in Egyptian Pharaoh Tutankhamun's tomb, dating back to approximately 3,300 years ago.

Since 1964, there have been 458 published, peer-reviewed studies referencing it. The Black seed has been researched for very specific health conditions.

The **cold extraction process** of botanic seeds separates the lipids from the seed fibres. The lipids are complex with phytosteroids, essential fatty acids, diverse antioxidants, phospholipids, and dissolved minerals. In addition, the fibre contains diverse water-soluble antioxidant compounds. This process is pure and nature fresh. Studies have demonstrated that these substances produced by this cold pressed extraction process under anaerobic conditions have a much higher concentration than those produced by heat process with additives. Heat degenerates the antioxidants and thus creates loss of substance. Additives add to the impurities of these compounds. Rain International's cold-press technique extracts ALL the nutrient rich oils and flours needed. Not only is our process better, it's also certified organic and chemical free.

Some of the most compelling applications include:

Type 2 Diabetes: Two grams of black seed a day resulted in reduced fasting glucose, decreased insulin resistance, increased beta-cell function, and reduced glycosylated haemoglobin (HbA1c) in human subjects. ¹

Helicobacter Pylori Infection: Black seeds possess clinically useful anti-H. Pylori activity, comparable to triple eradication therapy. ²

Epilepsy: Black seeds were traditionally known to have anticonvulsive properties. A 2007 study with epileptic children, whose condition was refractory to conventional drug treatment, found that a water extract significantly reduced seizure activity. ³

High Blood pressure: The daily use of 100 and 200 mg of black seed extract, twice daily, for 2 months, was found to have a blood pressure-lowering effect in patients with mild hypertension. ⁴

Asthma: Thymoquinone, one of the main active constituents within *Nigella sativa* (black cumin), is superior to the drug fluticasone in an animal model of asthma. ⁵

Another study, this time in human subjects, found that boiled water extracts of black seed have relatively potent anti-asthmatic effect on asthmatic airways. ⁶

Acute tonsillopharyngitis: characterized by tonsil or pharyngeal inflammation (i.e. sore throat), mostly viral in origin, black seed capsules (in combination with *Phyllanthus niruri*) have been found to significantly alleviate throat pain, and reduce the need for pain-killers, in human subjects. ⁷

Chemical Weapons Injury: A randomized, placebo-controlled human study of chemical weapons injured patients found that boiled water extracts of black seed reduced respiratory symptoms, chest wheezing, and pulmonary function test values, as well as reduced the need for drug treatment. ⁸

Colon Cancer: Cell studies have found that black seed extract compares favourably to the chemoagent 5-fluorouracil in the suppression of colon cancer growth, but with a far higher safety profile. ⁹ Animal research has found that black seed oil has significant inhibitory effects against colon cancer in rats, without observable side effects. ¹⁰

MRSA: Black seed has anti-bacterial activity against clinical isolates of methicillin resistant *Staphylococcus aureus*. ¹¹ We've reached the end of antibiotics.

Opiate Addiction/Withdrawal: A study on 35 opiate addicts found black seed as an effective therapy in long-term treatment of opioid dependence. ¹²

For Pain Relief: Dr Lucy Yu from the University of Maryland concluded in her research that the black seed in Soul is 281 times stronger for reducing inflammation than aspirin, gram for gram. Latest studies show that inflammation is the underlying cause of almost all diseases, including heart problems, poor health, and pain. It will help you to get off of your pain medications and their side effects. - Remember, SOUL is 100% organic food.

Good Fat Heals Bad Fat Kills. Soul contains good fat omega 3,6 and 9 being cold pressed from 3 types of seeds namely Cumin Seed, Grape Seed and Black Raspberry Seed. The main function of Soul is to clear the bad fat from our cells, brain and organs. Our cells membrane is 55% fat. When the cell membrane is coated with bad fat, it suffocates as oxygen and nutrients cannot enter the cell and toxins in the cell cannot come out. This unhealthy condition will affect the functions of our organs and finally affect our health. Once the bad fats are replaced with good fats the cell becomes active and function effectively, strengthening our immune system. According Dr Brian Peskin, a famous scientist who studied the essential oils, explains that fish oils advance aging and are bad for your health. The best omega 3 and 6 for your body needs to come from organic seed oils. Science have proven that eating seeds oils in just a few months will reverse your aging process by 11 years.

Assist your DNA Did you know that there is a civil war going on inside every cell in your body? On one side of the battle: your "regular" DNA, which provides the day-to-day instructions for life. On the other side: tiny bits of rogue DNA that hide like spies between genes in your own DNA. From time to time, these rogue bits of DNA spin off a copy of themselves and "jump" to another DNA location – often causing harmful mutations when they land, which can promote diseases such as cancer, diabetes – only a few to mention.

-University of Michigan Research Centre

To those who suffer from diabetes, cancer and pain then read this

How much should I take?

SOUL is a food supplement and one sachet of SOUL contains 10 servings of fruits, 10 servings of vegetables and 3 servings of healthy fatty acids for a low cost of less than £2.00. This food supplement outperforms Aspirin and the STRONGEST known anti-inflammatory.

The recommended dose is 2 sachets a day.

For severe pain start with 3 sachets a day

Once pain is controlled, settle into two packs, or whatever works.

When a person uses the SOUL topically, the results are 30% - 40% more effective for pain, skin disorders and tumours. The Soul works transdermally, through the skin like DMSO. It penetrates the skin and it's not sticky. Put it on any part of the body, wherever you need it most.

I prescribe Soul as a food supplement and according to the experience of hundreds of patients, we may expect a 50% improvement within a few days; however, when they take it orally and put it on topically, they are getting 80% - 90% improvement. Remember drink lots of unchlorinated water, to clear many toxins in your body.

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The seeds are backed by over 200 scientific research studies with 6 worldwide patents for the black cumin seed.

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4. CANNABINOIDS

Our body is a bewildering soup of chemicals, all doing different jobs. But it is in the brain that one finds some of the most remarkable chemicals. As our knowledge of the intricate structure and functioning of the brain has grown, the dramatic role of these neurochemicals in shaping our life has come to light.

Cannabinoid Deficiency May Explain a Variety Of Health Conditions

As we know, endocannabinoids are naturally produced within the body and play a major role in overall health. Similarly, medical marijuana and phytocannabinoids derived from cannabis have exhibited a number of therapeutic benefits.

The active cannabinoids found in the marijuana plant are nothing short of a miracle drug. Helping those without hope, fight what was once thought as an incurable death sentence. Curing those that suffer from brain cancer, breast cancer, prostate cancer, lung cancer, thyroid cancer, colon cancer, skin cancer, pituitary cancer, melanoma and even some forms of leukaemia. They do this by encouraging the death of cancer cells, cutting off their critical blood supply, while leaving healthy cells intact and unharmed. Unlike conventional treatments.

Researchers have identified over 70 unique cannabinoids within the marijuana plant, many of which interact with the medical marijuana patients endo-cannabinoid system. This is accomplished by using the cannabinoid receptor found throughout the human body. Some marijuanas' cannabinoids bind more selectively to certain brain receptors and are more specific for desired medical use.

Endocannabinoid system (ECS)

Properties	CBC	CBCa	CBD	CBDa	CBG	CBGa	CBN	CGC	CGCa	THC	THCa	THCv
Analgesic	✓		✓			✓	✓			✓		
Anorectic												✓
Antibacterial		✓	✓		✓							
Anti-diabetic			✓									
Anti-emetic			✓							✓		
Anti - epileptic			✓									✓
Antifungal		✓										
Anti-inflammatory	✓	✓	✓	✓	✓	✓					✓	
Anti-insomnia							✓					
Anti-ischemic			✓									
Anti-cancerous	✓		✓	✓	✓						✓	
Anti-psoriatic			✓									
Anti-psychotic			✓									
Anti- spasmodic	✓		✓							✓	✓	
Anxiolytic			✓									
Appetite Stimulant										✓		
Bone Stimulant	✓		✓		✓						✓	
Immunosuppressive			✓									
Neuro-protective	✓		✓			✓	✓			✓		

There are many challenges in marijuana research. The whole plant contains many compounds, that acts differently on the human body. For example, studies show that **THC** can raise anxiety and cause paranoia, while cannabidiol (**CBD**) may reduce them. Components of the whole plant can have nearly an opposite effects in the human brain, so that one compound can change the effects of another. Different cultivars (strains or types) and even different crops of marijuana plants can have varying amounts of these compounds. This means that studies that use the whole plant may find different effects based on the strain of marijuana used. At least one researcher has shown a wide range of ratios between THC and CBD.

We need to appreciate there are many different cannabinoid and they all play a major part in your body; even if you've never used cannabis before in your life.

What Are Cannabinoids?

Cannabinoids are a diverse set of chemical compounds found in the human body whose job is to provide a two-way communication between certain receptors in the endocannabinoid system (ECS) of the body. The ECS regulates processes in your body such as energy intake, nutrient transport, and metabolism storage. To better understand how cannabis comes into play, you must understand how this endocannabinoid system functions.

Today there are three types of cannabinoids known to scientists and they are:

- Endocannabinoids (found within the human body),
- Phytocannabinoids (found in plants such as cannabis),
- Synthetic cannabinoids (found in laboratories).

The most popular cannabinoid of them all is a phytocannabinoid by the name of tetrahydrocannabinol, or THC, the primary psychoactive ingredient in cannabis; Cannabidiol, or CBD, runs a close second place.

Considering our body is familiar with the endocannabinoids ECS produced naturally our the body, so we don't need to succumb it to any new protein or medicine. Our body will harmonize with the ECS and its designed to provide a special two way communication between the cannabinoid receptors, and the addition of THC and CBD from cannabis. They help normalize the body's systems when there is a deficiency of cannabinoids.

CBD works on receptors, and as it turns out, we have cannabinoids in our bodies, endogenous cannabinoids, that turn out to be very effective at regulating our immune, nerve and bone functions. There's a tendency to discount claims when something appears to be good for everything, but there's a reason. The endogenous cannabinoid system acts as a modulator in fine-tuning a lot of these systems, and if something is deranged biochemically in a person's body, it may well be that a cannabinoid system can re-balance our body. It is vital to understand that endocannabinoids are lipid-based chemical and they are designed to easily infiltrate the blood brain barrier, as no other chemical can do. Cannabis is no foreign substance in our body and we are created with a patent cannabinoids system.

How Your ECS Controls Appetite

A lack of endocannabinoids in a person's body could lead to eating disorders. ECS activity in the central nervous system regulates food intake. That is because whenever you're hungry your ECS sends signals to your hypothalamus. Our hypothalamus is the part of your brain that triggers appetite, and it lets your limbic system (the part that controls our emotion) know we are smelling food.

Endocannabinoids are responsible to slow down the process of gastrointestinal emptying and transit, and it appear to stimulate the secretion of Ghrelin, a hormone that increases appetite and food intake. After eating, your brain is sent satiety signals (leptin signals) from your small intestine (duodenum) that reduces activity in your ECS, letting your body know you've had enough to eat.

Since we now know that hunger & appetite is caused by the production of endocannabinoids, is it a logical to assume that a lack of endocannabinoids in a person's body could lead to eating disorders.

Studies conducted on women afflicted with eating disorders have revealed a deficiency in endocannabinoid levels and also reduced cannabinoid receptor activity within the brain.

Using cannabis to treat patients with eating disorders such as anorexia is something that makes logical and scientific sense. Cannabis therapies could also be useful for patients who are undergoing treatments that cause them to lose their appetite; Chemotherapy treatment for cancer are notorious for their side effect. Additionally, patients that suffer from HIV and AIDS are also put at risk, having a poor appetite.

Research in the ECS system is ongoing and a clear list of medical conditions do evolve that could possibly help us. Whether cannabinoids are providing relief for migraines, fibromyalgia, or irritable bowel syndrome (IBS), the mechanism involved is largely the same; success is often attributed to activation of the body's cannabinoid receptors.

Ethan Russo is a Senior Medical Advisor at GW Pharmaceuticals, the company responsible for Sativex, suggested that deficient cannabinoid levels may be the underlying cause of numerous conditions that is susceptible to cannabis. Migraine, fibromyalgia, IBS and many related conditions do display a common clinical, biochemical and pathophysiological patterns that suggest an underlying clinical endocannabinoid deficiency is the root of the problem.

Similarly, Dr. Robert Melamede, former Biology Department chair and current Professor at the University of Colorado, holds the belief that endocannabinoids can inhibit the **aging process**. Furthermore, he speculates that cannabinoids are essential nutrients with the ability to minimize age-related illnesses like cancer and cardiovascular disease.

It is becoming increasingly accepted that free radicals are responsible for aging and age-related illness. Specifically, they have been tied to cardiovascular disease, autoimmune disorders, cancer, age-related cognitive dysfunction, and skeletal diseases like osteoporosis.

Interestingly, the creation of free radicals goes hand in hand with inflammation. Cannabinoids, like cannabidiol (CBD), are known to inhibit inflammation, so it stands to reason that they could play a role in the modulation of free radicals as well. Inflammatory-induced free radicals accumulate over time until 'the weakest link' breaks. Of course, that link varies from person to person, which would explain why a cannabinoid deficiency may present itself in a variety of ways.

Cannabis Could Help Treat Cannabinoid Deficiency

Nonetheless, supplementing the body's cannabinoid supply could be of equal benefit for each deficiency-related condition. Essential fatty acids like Omega-3 have received a great deal of media attention in recent years for their cardiovascular benefits. However, Dr. Melamede points out that they directly affect the endocannabinoid system, a fact that few people are aware of.

Hemp seed oil contains LA (omega-6) and ALA (omega-3) in the optimum 3:1 ratio for human health and it has a pleasant nutty taste, although it does need to be kept refrigerated to preserve the quality of the oil. Omega-3 and 6 fatty acids are important for our health and longevity. If you want to avoid fish for whatever reason, hemp is a fantastic alternative.

A vegan will benefit from the hemp Omega-3 oil, whereas fish-derived Omega-3 could contain mercury. Read my article on oils.

Our daily diet will have a have a very limited effect on the endocannabinoid production, and therefore I believe cannabis should be used as a supplement. Nobody dies from getting old, but people do die from age-related illnesses.

Cannabis promotes our health.

The humble cannabis plant has been around for many centuries. It is believed to have originated in Central Asia, but has expanded its reach to an international scale over time. People around the globe consume cannabis, and their reasoning is largely the same – it makes them feel better.

In the eyes of most the **recreational use** to ease social anxiety is much different from an Israeli cancer patient. With that said, scientific research suggests that the same plant could be beneficial for each individual.

In fact, cannabinoid receptors are present in humans before birth and the compounds themselves are found in **breast milk**. Medical marijuana gains merit when you consider our bodies are naturally tuned to interact with cannabinoids, and even more so once you acknowledge the growing evidence of benefits to cannabis consumption.

Cannabis are also famously used to reduce the experience of **nausea**, but studies suggest it could have a number of digestive benefits as well.

Medical Marijuana could play a role in a number of digestion-related issues, including **Crohn's Disease, Obesity and Diabetes**.

Chronic Pain is one of the most common ailments for which doctors prescribe medical marijuana and a recent survey published in The Spine Journal found that 1 out of 5 patients at a Colorado spine center were using cannabis to manage their pain. Of those, nearly 90% said it greatly or moderately relieved their pain. The spine clinic study was merely a survey, which means more research will be necessary on the potential role of cannabis in treating back pain. With that said, plenty of people will tell you it helps manage pain and science is beginning to back their claims. Studies suggest medical marijuana could offer relief for various types of pain like **Neuropathic Pain or Migraine**.

Cannabis & Mental Health

A common misconception of cannabis is that has detrimental effects on mental health. It is possible that high doses of tetrahydrocannabinol (THC) could trigger anxiety, and some believe it could expedite the onset of predisposed personality disorders.

The recent trend in the mental health field has been to investigate our relationship with cannabis. In turn, studies have linked cannabinoids to a number of mental health concerns. The research catalogue is still growing, but a few conditions for which cannabis could be of benefit, it to treat **Alcoholism, Opiate Withdrawal, Depression, Phobias, Psychosis and Schizophrenia**.

Your Brain On Cannabis

Cannabis effects Neurogenesis. It is the birth of new neurons from the neural stem or progenitor cells in the brain. That takes place in the brain over the course of the adult lifespan, declining with age, but there are a number of behavioural, environmental, pharmacological and biochemical factors that affect this process. Cannabis proved to be a vital link to mental health, and cannabinoid receptor activity in the brain before birth suggests that the compounds could be play a role in brain development.

In addition to its role in brain development, cannabis is believed to have neuroprotective properties. Studies have offered evidence and cannabis is believed to offer relief from various conditions, including **Parkinson's disease**.

Medical Marijuana & Cancer

One the most intriguing potential applications for medical marijuana is cancer treatment. It has long been prescribed to counter the side effects of chemotherapy, but oncologists across the world are working on trials to determine whether cannabis can be used to treat cancer itself.

The main psychoactive ingredient in cannabis is THC and it could be used to reduce tumour growth in cancer patients, according to an international research team. In 2009, researchers at Complutense University in Spain found that THC induced the death of brain cancer cells in a process known as 'autophagy.' The researchers found that administering THC to mice with human tumours initiated autophagy and caused the growth of the tumours to decrease. Two human patients with highly aggressive brain tumours who received intracranial administration of THC also showed similar signs of autophagy, upon analysis.

The team behind the new study - co-led by Complutense University and the University of Anglia (UEA) in the UK - claims to have discovered previously unknown 'signalling platforms' that allow THC to shrink tumours.

The researchers induced tumours in mice using samples of human breast cancer cells. When the tumours were targeted with doses of THC, the researchers found that two cell receptors were particularly associated with an anti-tumour response. THC, the major active component of marijuana, has anti-cancer properties. This compound is known to act through a specific family of

cell receptors called cannabinoid receptors,' says Dr. Peter McCormick, from UEA's School of Pharmacy.

Past research showed promise for THC in cancer treatment, but many are skeptical because of its psychotropic effects. As a result many oncologists have redirected their focus toward cannabidiol (CBD) and cannabigerol (CBG). A recent British study, however suggests that cannabinoids may be most effective against cancer when combined.

Top Five Ways to Ingest Medical Marijuana

- Smoking medical marijuana is still the most common way of using the drug. Smoking is the fastest way of getting the chemicals into your body. Smoking is via a joint (rolled cigarette), using a glass pipe, or a type of water pipe (bong). Smoking is a quick and efficient way to deliver an optimum dose of cannabinoids into the system. The patient is able to feel the effects almost immediately and they can stop smoking as soon as the desired relief is reached. The compromise is an increased risk of respiratory ailments? In 2006, many physicians were shocked when a review of research to date did not show an increase in lung cancer related to marijuana use. There was even a suggestion that marijuana had a protective effect against lung cancer. More recent studies, in contrast, do appear to link smoking marijuana with lung cancer, although the results are mixed but not lung cancer.
- Vaporization
Vaporization is an effective way to deliver the therapeutic components of marijuana without the toxic by-products of combustion. Inhaling-a vaporizer is an alternative way to reach the desired effect. The vegetable material is placed in the vaporizer and heated to a temp.: 180-200 degrees Celsius. This causes the essential oils to volatilize, or evaporate into a pure vapour, which is then collected and inhaled. The resulting vapours contain no tars, hydrocarbons, benzene, carbon monoxide or other toxic pryolytic gases and by-products of combustion. Thus the respiratory risks have been eliminated.
- Eating marijuana
In many cultures people prefer to ingest marijuana by eating or drinking it. Eating medical marijuana is especially recommended for patients since it avoids the risks of bronchitis or lung irritations associated with inhaling smoke. It is vital to understand some cannabinoids must be activated by heat. Eating it raw will not deliver the full therapeutic benefits. Cannabinoids are soluble in fats and alcohol, but not water. They must be either suspended in a fat such as vegetable oil or butter, OR steeped in alcohol. Medical marijuana can be prepared for cooking in two ways. It can be pulverized into powder, called marijuana, or canna flour. or extracted into a fat or oil, most commonly butter, called cannabutter. It is the common name for a butter that has been infused with the beneficial cannabinoids contained in medical marijuana. Cannabutter is not hard to make and for those who ingest their medicine by eating it, cannabutter is much more palatable than is the whole plant. To make cannabutter, put a large kettle on to boil. Add a pound of butter. Bring the water-butter mixture to boil. The temperature will never go above 212° F — remember your high school science. This is warm enough to activate the cannabinoids but not too hot as to degrade them. You can boil this mixture all day long without fear, but don't let it boil dry. As the water-butter mix gently simmers, stir in one ounce of medical marijuana. Allow the water-butter-medical marijuana mixture to continue to simmer at a gentle boil for two hours. Stir occasionally, washing any residues that accumulate on the sides of your kettle back into the liquid. After 2 hours, remove kettle from heat. The cannabinoids are now dissolved out of the plant material and into the butter. Strain the mixture, while still very hot through a strainer, a nylon stocking or a similar fine meshed filter. Set liquid aside. To recover as much of the butter as possible, return the plant material to the kettle and refill with water. Bring to boil. Stir briskly and then pour second batch of liquid through the filter. Add the resulting liquid to the first pot of filtered water. You may now discard the plant material; it no longer contains the

beneficial cannabinoids. Allow liquid to cool. As it does, the butter will float to the top and form a solid layer on top of the water. Once fully cooled and the butter has solidified it may be gently skimmed off. The butter will most likely be greenish in color, that's OK. Actually that's good because it makes the cannabutter immediately recognizable which lessens the chances of accidental ingestion. Store your cannabutter in a closed container in your refrigerator. It must be kept refrigerated to keep it from going rancid. To test the strength of your cannabutter, spread a half teaspoon full on a cracker and try it out. It takes about an hour to reach its full effect. Be careful.

Cannabutter may be substituted for regular butter in any recipe. It is especially good for making candy, cookies and brownies. The amount to use in any particular recipe comes down to a matter of learning from experience. The best approach is to start small and then use a steadily increasing amount in each subsequent recipe until you find the dosage that is most beneficial for relieving your particular complex of symptoms. Fortunately, it is literally impossible to overdose on marijuana. It is estimated that an adult would have to consume over 65 pounds of marijuana in less than an hour to take in a lethal dose. Medical Marijuana Can Be Prepared For Cooking in Two Ways: Pulverized into a powder called Canna Flour or extracted into a fat or oil. Commonly called Canna Butter.

- **Drink**

The active ingredients in medical marijuana can be infused into various liquids and then made into drinks. Because cannabinoids are not water soluble, making drinkable medical marijuana is not a simple matter of brewing up a tea. Medical Marijuana drinks are most often either alcohol or milk (fat) based. Cannabinoids are extracted into alcohol by steeping the plant material in a high proof alcohol for several days. Medical marijuana milk is called 'Bhang.' To make it: warm a quart of milk over low heat. Let milk come to a very slow boil and add 1/4 ounce of medical marijuana. Immediately reduce heat and let it gently simmer for a bit. Stir and don't let it burn.

- **Suppositories**

Medical marijuana can be easily converted into suppository form. Begin with marijuana powder (pulverized) to achieve maximum benefit, marijuana must be pulverized to dust. You can purchase suppository kits (beeswax) online or from your health food store. Medical marijuana suppositories are well suited for patients who are unable to eat or smoke medical marijuana. Keep them labelled and in the refrigerator.

- **Resin or Rick Simpson oil.** Rick cured himself of a metastatic skin cancer back in 2003, and has since then devoted his life to spreading the truth about hemp oil, and he had many confrontations. 'Run From The Cure' is his official video documentary. This movie features interviews with people who were cured by Rick's oil, but were refused from testifying on Rick's behalf in the Supreme Court of Canada in his 2007 trial. However, as with any 'drugs', too much hemp oil may spell some side effects; the most notable three are hunger, happiness and too much sleep. It is an extremely safe medication compared to the others. Nobody has ever died from cannabis in any form. To make the oil, start with 30 grams of dried herb. 30 grams will typically produce 3-4 grams of oil, although the amount of oil produced per 30 grams unit will vary strain to strain. 450 grams of dried material will yield about 60 grams of high quality oil. It takes the average person about 90 days to ingest the full 60 gram treatment. I suggest that people start with three doses per day, about the size of a half a grain of short grained rice. A dose such as this would equal about 1/4 of a drop. After four days at this dosage, most people are able to increase their doses by doubling the amount of their dose every four days.

5. CHOLESTEROL

Should I Eat Saturated Fats?

Stop denying yourself essential healthy fats and live a little. Your body and brain will thank you. Your taste buds will, too. So, no more processed foods or fast foods. No more nasty grain fed meat. No more fat-free dairy. No more egg white omelettes!

If 50% of our cells are Saturated fats and 60% of our brain is fat, and the fat content of our liver is even higher, then we need to embrace saturated fats. Now it's time to travel back in time to observe the people who ate saturated fats without controversy, who did not have a positive or negative opinion of saturated fat whatsoever! If we go back just a hundred years we will see that less than 1/100th of the Western nations were obese, and that coronary heart diseases were unknown. Today heart disease is rife because they start to avoid saturated fats! Yes, it is true!

According to some of the latest research:

High doses of cholesterol and saturated fats do not produce atherosclerotic lesions.

It's now clear that saturated fats can play many important roles in the human body to strengthen the immune system. It makes muscle and bones stronger, provides energy, protects the liver as well as assists the body's metabolism. Our body needs saturated fat and here are the reasons!

- Saturated Fats Make Your **Bones** Stronger. Saturated fat is required for calcium to be effectively incorporated into bone. According to one of the foremost research experts in dietary fats and human health, Dr. Mary Enig, Ph.D., there's a case to be made for having as much as 50 percent of the fats in your diet as saturated fats for this reason. At the age of 40 to 45 bone mass starts to decline. At this stage it is very important to make your bones stronger. Saturated fat is necessary for calcium to be incorporated effectively into bone. Only calcium can make your bones stronger and what are the sources of calcium? Yes! It's saturated fat! Saturated fats are the inexpensive way to make your bones stronger. We need as much saturated fat as is recommended, and dairy products are the best source of calcium. Saturated fats can lower the risks of colon cancer and osteoporosis and colon cancer.
- Saturated Fats Make Your **Lungs** Healthy. For proper function, the airspaces of the lungs have to be coated with a thin layer of lung surfactant. The fat content of lung surfactant is 100 percent saturated fatty acids. Replacement of these critical fats by other types of fat makes faulty surfactant and potentially causes breathing difficulties. Basically the absence of the right amount fats cause problems, and composition of these materials often leads to collapse of respiratory distress. Some researchers discovered that the substitution of hydrogenated fats for natural saturated fats in prepared foods can be playing a greater role in the rise of asthma among children. Unfortunately, the fear of saturated fats lead people to use polyunsaturated vegetable oils that can be unhealthy for you.
- Saturated Fats Improve **Liver** Health. Saturated fat has been shown to protect the liver from alcohol and medications, including drugs commonly used for pain and arthritis. If you add saturated fats in your everyday diet plan, then it will encourage your liver cells to dump all the fat content. Though it is a very critical step to clean the liver fat, however; it is the first step of calling a halt to body fat storage. Saturated fat will protect your liver from toxic insults of medications like Paracetamol and alcohol as well as other drugs that are used for arthritis and pain like anti-inflammatory medicines. Saturated fats also help to reverse the damage when it has already occurred. Polyunsaturated fats will not be able to offer this protection, but saturated fat can!
- Saturated Fats Reduce **Cardiovascular Risk Factors**. Cardiovascular health is important for your body. If you add saturated fat to your diet, it will help you to reduce the level of substance which is known as lipoproteins, which correlates with risk for heart diseases. A variety of researchers have shown that people who add saturated fat in their diet and eat more saturated fat, can lose extra weight fast. While lipoprotein correlates with the risk of heart diseases, there are no medications at this moment to lower the substance. The only way to lower lipoprotein is by eating saturated fats. Ultimately saturated fats are responsible for lowering the chances of heart diseases.

- Saturated Fats Make the **Immune System** Stronger. Saturated fats play important roles in your immune health. Most importantly, coconut oil and butter that contains lauric acid and myristic acid are the best for your immune system. Short- and medium-chain saturated fatty acids have important antimicrobial properties. They protect you against harmful microorganisms in your digestive tract. Also see Mary Enig's book "Eat fat, Lose Fat" showing how Coconut oil, red meat, and butter, traditionally considered harmful, are actually essential to weight loss and health. Based on more than two decades of research, she also shows how so-called healthy vegetable oils (such as corn and soybean) are in large part responsible for our national obesity and health crisis.
- Saturated Fats Make Your **Brain** Healthy. Your brain is mainly made of fat and cholesterol. A diet that skimps on healthy saturated fats robs your brain of the raw materials it needs to function optimally. You will be surprised to know that your brain is made of cholesterol and fat. Unsaturated fats are not capable to improve the functions of your brain like saturated fat. To make your brain more active, there is no other option but to take sufficient amounts of saturated fatty acids. Alzheimer's disease did not exist 40 years ago. It was not in any medical textbook, it was not in any medical dictionary, it was not taught in any medical course. It only became a disease entity in the literature in 1979. Today it's the number 4 killer of adults over the age of 65, behind cardiovascular disease, cancer, and diabetes. It's a physician-caused disease, and I'm going to prove that to you in a minute. Some people will argue Alzheimer disease is genetic, but I will prove otherwise. You only make 10% of the cholesterol in your body and the other 90% is dependent on your diet. If you don't have enough Cholesterol due to a low fat diet and taking cholesterol lowering drugs ending with the word statin; you are in trouble. You will start losing that myelin, that insulating stuff out of your brain. You will be diagnosed with brain atrophy as the brains building blocks are depleted, and it's clearly visible on a CT scan of the brain. You will die having Alzheimer's disease. You can prevent and reduce your risk to almost zero, if you eat two soft scrambled or boiled eggs each morning, but not fried.
- Saturated Fats Improves the **Nerve Signalling**. Certain saturated fats, particularly those found in butter, lard, coconut oil, and palm oil, function directly as signalling messengers that influence metabolism, including such critical jobs as the appropriate release of insulin. Do not ever think that just any kind of fat can do this. Only saturated fats have this ability. Without proper signals, the organs as well as glands fail to understand what to do, and due to this, they start to do things improperly.
- They also help absorption of minerals and **fat-soluble vitamins** A, D, E, and K, conversion of carotene to vitamin A, and many biological processes. Many trace minerals are incorporated into the fat globule membrane of butterfat, including manganese, zinc, chromium and iodine. Butter is extremely rich in selenium, a trace mineral with antioxidant properties.
- The Wulzen Factor: Called the "anti-stiffness" factor, this compound is present in raw animal fat. Researcher Rosalind Wulzen discovered that this substance protects humans and animals from calcification of the **joints-degenerative** arthritis. It also protects against hardening of the arteries, cataracts and calcification of the pineal gland. Calves fed pasteurized milk or skim milk develop joint stiffness and do not thrive. Their symptoms are reversed when raw butterfat is added to the diet. Pasteurization destroys the Wulzen factor-it is present only in raw butter, cream and whole milk.

The proven truth is that saturated fats from both animal and vegetable sources provide a concentrated source of energy as well as building blocks for cell membranes and a variety of hormones.

Saturated fats slow down absorption, allowing you to go longer without eating.

Only eat fat from Pastured & Organic Animals, and avoid factory farm raised chickens.

Researchers in Canada sought to raise three breeds of broiler chickens common in 1957, (900 gr.) 1978, (1,900 gr.) and 2005 (4,200 gr.) without the influence of disparate feeds or hormones to see how they'd changed genetically.

Remember only pastured and organic animals and chickens and buy from your local farm store or trusted butcher. This is very important as all of the hormones, antibiotics, and toxins in the feed are stored in the fat of the animals we consume, therefore transferring them to those who eat them.

Be sure to include these sources of saturated fats in your diet:

- Grass-fed organic beef and beef fat
- Free Range organic duck, goose and chicken
- Organic pastured eggs (with yolks)
- Naturally raised lamb
- Organic raw dairy products (butter, cheese, milk, cream)
- Coconut oil
- Other sources of healthy fats include:
- Olives and olive oils (unheated)
- Avocados
- Unheated organic nut oils (small amounts)
- Raw organic nuts such as Almonds or pecans

Making A Good Bone Marrow Broth

A pot of broth simmering away on the stove is like therapy and medicine for the soul. It is a power food and it's easily digestible, helps heal the lining of your gut, and contains valuable nutrients that promote healing throughout your body.

Because bone broth is easy to absorb, tastes good, and contains a rich concentration of nutrients, it is considered a good natural 'medicine.'

Bone broth is a chief element of the GAPS Diet, which is based on the **Gut And Psychology Syndrome (GAPS)** principles developed by Dr. Natasha Campbell-McBride. She is currently practicing as a Neurologist and Neuro Surgeon in the UK

The GAPS diet is often used to treat children with autism and other disorders rooted in gut dysfunction, but just about anyone with allergies or less than optimal gut health can benefit from it, as it is designed to heal leaky gut.

If your gut is leaky or permeable, partially undigested food, toxins, viruses, yeast, and bacteria have the opportunity to pass through your intestine and access your bloodstream causing havoc. It is generally known as a 'leaky gut.'

When your intestinal lining is repeatedly damaged the microvilli become clumsy and are powerless to process and utilize the nutrients and enzymes that are vital to proper digestion.

Eventually, digestion is impaired and absorption of nutrients is negatively affected. As more exposure occurs, your body initiates an attack on these foreign invaders. It responds with inflammation, allergic reactions, and many other symptoms causing a variety of diseases.

Leaky gut is the root of many allergies and autoimmune disorders, for example. When combined with toxic overload, you may invite autism, ADHD, and learning disabilities.

The GAPS diet starts out as an elimination diet, which means taking out all inflammatory foods. This includes high-fibre foods, processed foods, and anything that is going to be difficult to digest.

One of the main foods that you use is bone broth, because not only is it very easily digested, it also contains profound immune-optimizing components that are foundational building blocks for the treatment of autoimmune diseases.

As your leaky gut begins to heal and your health improves, certain foods are added back in, but bone broth remains a staple because it is so incredibly nourishing for your body. This is why, even if you don't have gut issues, it is still a wonderful staple food to include in your diet.

The broth will soothe the gut and allowing the body to absorb critical nutrition

Let's look at more ways that bone can truly nourish and benefit the body.

Nutritional Facts & Benefits of Bone Broth

- Bone broth contains gelatine a colloidal substance that attracts digestive juices to itself and prevents gastrointestinal bugs from attaching themselves to the gut wall and wreaking havoc. The gelatine found in bone broth is a hydrophilic colloid. It attracts and holds liquids, including digestive juices, thereby supporting proper digestion. Another word for collagen is gelatine. Collagen is a scientific term for a particular protein in the body, while gelatine is a food term referring to extracted collagen.
- Bone broth contains minerals such as calcium, silicon, sulphur, magnesium, phosphorous & trace minerals in an easily digestible form. These minerals are pulled out of the bones in part due to using a vinegar solution prior to cooking. The vinegar helps to draw the mineral salts out of the bone. All of the minerals present in bones used for bone broth, except fluoride, are macro-minerals, which are essential for proper nutrition and are required in greater amounts than 100mg/day. The only macro-mineral not present in bone is chlorine. Minerals have numerous functions in the body beyond the composition of bone, which is why the body will rob the bones and tissues to maintain steady levels of minerals in the blood and other fluids. Calcium is the most abundant mineral in bone, it is also the most abundant mineral in the body. Collagen (broth) can be considered for use in the following conditions: poor wound healing, soft tissue injury (including surgery), cartilage and bone injury (including dental degeneration).
- Broth also contains, Chondroitin Sulphate, a jellylike substance, now famous as a supplement for joint pain associated with osteoarthritis. It functions to support and provide adhesiveness. It lines blood vessels and plays a role in lowering atherosclerosis, cholesterol and heart attacks. It also contains glucosamine, and other compounds extracted from the boiled down cartilage
- Promotes healthy hair and nail growth, thanks to the gelatine in the broth
- Gelatine has also been found to improve body weight as well as bone mineral density in states of protein under nutrition.
- Broth is not a complete protein, since it only contains three amino acids. A complete protein needs all the essential amino acids. Therefore it is not a meat replacement, but it can be used as a meat extender. Since **Glycine** is used to make other amino acids, it is considered protein sparing. In addition, because glycine is used to make energy in gluconeogenesis, consuming glycine spares your own body protein from being broken down to make energy. Amino acids such as glycine, **Proline**, and arginine all have anti-inflammatory effects. **Arginine**, for example, has been found to be particularly beneficial for the treatment of sepsis or any inflammation. Glycine has a calming effect, which may help you sleep better.
- Drinking bone broth makes skin supple. Cellulite does not arise from carrying excess fat. Cellulite is caused by a lack of connective tissue, and even thin people have this problem. The smoothness of skin is from an abundance of connective tissue. Collagen-rich bone broth will supply your skin with the tools that it needs to support itself.

Ingredients

Adding chicken feet, animal joints, and knuckles to a bone broth will increase the amount of collagen available.

When collecting bones, go for variety. This is because the marrow found in bones is either yellow marrow or red marrow. Yellow marrow is found in the central portion of long bones. It is where fats are stored. Red marrow, on the other hand, is found in flat bones, like the hip bones and vertebra. Red marrow is so valuable because it is where blood stem cells are found. When you drink a broth

made with a good source of red marrow, you are drinking all those stem cell factors that ultimately build your body's strength and support your own immune function.

Any kind of bone will do. You can even use an assortment of different animals.

Just make sure that all bones are sourced from animals that are organic and grass-fed or pastured and free-range. Remember, everything that the animal ate, how it lived, and where it lived all factor into the health benefits of your broth.

You can purchase bones ready to cook, or you can collect bones from meals and store them in your freezer until you have enough to build a good stock.

Make sure the bones, especially large bones, are cut into small pieces. This reduces cooking time and allows more material to become a part of the broth.

Cooking Suggestions

- Place bones into a large stock pot and cover with water.
- Add two tablespoons of apple cider vinegar or wine to water prior to cooking. This helps to pull out important nutrients from the bones.
- Fill stock pot with filtered water. Leave plenty of room for water to boil.
- Heat slowly. Bring to a boil and then reduce heat to simmer for at least 6 hours. Remove scum as it arises.
- Cook long and slow. Chicken bones can cook for 6-48 hours. Beef bones can cook for 12-72 hours. A long and slow cook time is necessary in order to fully extract the nutrients in and around bone.

After cooking, the broth will cool and a layer of fat will harden on top. This layer protects the broth beneath. Discard this layer only when you are about to eat the broth.

6. COCONUT

The coconut might have been given a bad reputation, but there are many reasons why you shouldn't criticize it.

Discarding traditional food wisdom to adopt market driven food options is one of the reasons behind malnutrition of various kind: yes, malnutrition is literally bad nutrition, not only under nourishment. When the food industry decided to push so-called 'healthy' fats and oils, in the form of highly processed polyunsaturated oils, coconut oil was made out to be a big culprit. Yet for generations, in many food cultures, including regions in South India, South and South-East Asia and the Polynesian islands, people used coconut and its oil and remained healthy. The origins of coconut are debated; however, some of the oldest fossils of the coconut as it exists today have been found in India and Australia. So, even though it may not be native to India, coconut has been part of our biodiversity for millennia.

Most parts of this amazingly multi-purpose gift of nature can be used: the fruit itself yields oil; one that has been found to be a panacea. The meat of the fruit is eaten as such or used for cooking or extracting milk. The water of the tender coconut is full of rehydrating electrolytes and potassium. This apart, the fibrous husk gives us coir and some use the hard shell as a fuel. If you are wondering why such a seemingly awesome fruit got bad press, the answer is simple: a reductionist mind-set which condemned it because of its high saturated fat content, without bothering to find out what was happening to people who had been consuming it over centuries. It suited them to harp on the high saturated fat content and thus pave the way for other industrially processed oils. Luckily, some scientists with a more open mind did take into consideration traditional food preferences and carried out a neutral research; thanks to them we now have some very useful insights.

Coconut oil and Cholesterol:

Actually, most oils and fats contain long chain fatty acids that have a negative impact on health as they clog arteries, being stored as fat by the body. They also impact LDL cholesterol levels. Coconut oil, on the other hand, contains over 50 per cent medium chain fatty acids (MCFA) that the body metabolizes into energy instead of storing as fat.

Coconut oil is the most powerful booster of GOOD cholesterol. Just make sure it's pure coconut oil, in other words, non-hydrogenated. Avoid any hydrogenated oil, including coconut oil, because hydrogenated oils are the same thing as dangerous trans-fats.

Here is why:

- Less fat build-up. Coconut oil consists of 92% of saturated fat called lauric acid, a type of MCT (medium-chain triglycerides). Most oils consist entirely of long-chain triglycerides, or LCT (Soybean oil, for example, is 100 percent LCTs). The difference matters because our bodies metabolize MCTs differently than LCTs. 'MCTs are transported directly from the intestinal tract to the liver, where they're likely to be directly burned off as fuel and raise the metabolic rate slightly,' explains researcher Marie-Pierre St-Onge of Columbia University. That means less is available to be circulated throughout the body to be deposited in our fat tissues.
- Also, coconut oil lowers cholesterol by promoting its conversion to pregnenolone, a molecule that is a precursor to many of the hormones our bodies need. Coconut can help restore normal thyroid function. When the thyroid does not function optimally, it can contribute to higher levels of bad cholesterol.
- Coconut oil can also positively affect our hormones for thyroid and blood-sugar control. People who take coconut oil also tend to have improvements in how they handle blood sugar since coconut can help improve insulin use within the body. It also increases digestion and helps to absorb fat-soluble vitamins.

Coconut oil and Alzheimer's:

We know that high cholesterol (bad cholesterol aka L.D.L) - increases risk for Alzheimer's. The findings indicate high cholesterol levels could create more plaque in the brain. The same if you have Diabetes - you are three times more likely to develop Alzheimer's.

- Our brains normally use only glucose for energy, but early on in diseases like Alzheimer's and Parkinson's, the brain starts to lose its ability to use glucose, which leads to a kind of starvation of the brain. ('diabetes' of the brains)
- But the brain can still use ketones products of fat metabolism, as a replacement for glucose, to ensure our brain is fuelled.
- MCTs in coconut oil produce more ketone bodies per unit energy than normal dietary fats (which are mostly LCT/long-chain triglycerides) and thus ensures some vital energy for the starving brain.

And remember to take coconut oil along with Vitamin E and C, which will have double effect against Alzheimer's.

Individuals who are sufficient in Vitamin E are 85% less likely to have Alzheimer's.

How will coconut help me keep my weight balanced?

Coconut fats have special fats called medium chain triglycerides (MCTs). It has been shown that breaking down these types of healthy fats in the liver leads to efficient burning of energy. One study found that women who consumed 30 millilitres (about 2 tablespoons) of coconut oil daily for 12 weeks not only did not gain more weight, but actually had lowered amounts of abdominal fat, (omentum) a type of fat that is difficult to lose, and contributes to more heart problems.

Coconut Oil boost your immune system in any ways

Coconut oil can be helpful for pregnant women, nursing moms, and the elderly, those concerned about digestive health, athletes and those who want to enhance their overall health. The reason is

the high content of lauric acid, which converts in your body to monolaurin – a compound also found in breast milk that strengthens a baby's immunity.

You might want to know why Lauric acid is so special:

To start with, it enhances brain function as well as the immune system. Monolaurin, into which the body converts Lauric acid, is antiviral, antibacterial, antimicrobial and antifungal; it, therefore, destroys many disease causing organisms, protecting the body from infections and viruses. It also combats fungal infections. Such remarkable qualities could not be left unexploited by the nutraceutical industry which developed supplements of this fatty acids; on the whole, coconut oil is deemed to kill viruses causing flu, herpes and measles, to name but a few. It has been observed that it has helped protect the body from cancers such as breast and colon cancers. The proof of the pudding is in the eating, so consume coconut in its various avatars to benefit from all its life enhancing gifts which also includes vitamins C, E, B1, B3, B5, B6 as well as various minerals such as iron, selenium, sodium, calcium, magnesium, phosphorus, manganese and copper. Let us now enter the kitchen and see its cooking properties. As an oil, coconut oil is very well behaved. It has a high smoking point and as such, good for cooking at high temperature. It also remains stable, like its counterpart, mustard oil, after having been used once, which means it is reusable, unlike industrially processed oils that get altered at high temperatures. These traits, therefore, make coconut oil perfect for deep-frying.

From helping to relieve acid reflux and absorption of vitamins to contributing to our well-being by controlling various diseases, coconut can clearly stake its claim as being a remarkable super food which does not stop at that since its cosmetic uses for skin and hair are also well known and proven. So, raise a toast to the coconut.

There are very few beauty products that we can honestly say are cure-alls, but coconut oil comes pretty close. You can use it for everything from healing scars to moisturizing dry knees. What can't coconut oil do?

- It proved to be a good Makeup Remover. Even the most resistant waterproof mascara doesn't stand a chance against coconut oil. Apply it directly to the face as an oil cleanser, or let it sit on your skin with a cotton pad. Makeup will melt away.
- Body Lotion. You can use this versatile oil as the base to make your own body moisturizer.
- Cuticle Oil. Got cracked cuticles? Remedy peeling skin with a coconut oil balm right at the base of nails. It can also help your manicure last longer.
- Makeup-Brush Cleaner. Cleaning your makeup brushes should be a monthly ritual. You can use a DIY cleanser that's two parts antibacterial soap and one part coconut oil.
- Lip Balm. Coconut oil is the ideal remedy for chapped lips especially because it's semisolid at room temperature. Pack a bit in a miniature jar and smooth over lips throughout the day.
- Under eye Cream. Don't want to spend the extra money on eye cream? Use a dab of coconut oil on undereye bags and fine lines. It's light enough for the most delicate skin on your face.
- Body Scrub. Mix half a cup of coconut oil with a handful of coarse salt or sugar to create an exfoliator. The moisturizing oil will last long after the grains have melted away.
- Massage Oil. Heat the coconut oil and add a few drops of an essential oil, like lavender or peppermint, for a soothing massage mix.
- Whitening Toothpaste. Coconut oil mixed with baking soda does wonders. Plaque is fat soluble, so it will remove the stains. Researchers found that coconut oil is effective in destroying most strains of the Streptococcus bacteria and especially Streptococcus mutans, a bacterium that produces acid and is a common cause of tooth decay.
- Shaving Cream. Use this balm as a base to get a closer shave that leaves legs smooth instead of dried out. You can also use it alone or with other ingredients.
- Dandruff Treatment. Dandruff and dry scalp go hand in hand. Apply coconut at night and massage in. It will stimulate hair growth. It is a deep conditioner. You can use hot coconut oil as a

pre shampoo treatment to soothe dry hair before you shampoo and condition. It is the only known oil to penetrate the hair follicle.

- Body Oil. Just dab it on wet skin after the shower, then pat dry. It has a natural SPF 4 factor 19.
- Night Cream. Apply coconut oil at night for maximum moisturizing benefits. The antioxidants are great for smoothing fine lines and wrinkles while you sleep.
- Deodorant. Yes, you can make your own natural deodorant at home. Mix coconut oil with arrowroot powder, corn-starch, baking soda, and a scented oil for an odour fix.

7. CURCUMIN

It's estimated that all 10-13 trillion of our body's cells get turned over every 100 days. Since air, water and food are the only things that enter our bodies, we literally are what we eat, drink and breathe! This means that not only do we need to make new cells every 3 months but... there are old cells that need to die off and get removed from our systems.

To make sure this process happens on cue, our cells are programmed to die. Some rogue cells however, like cancer cells, overstay their welcome by resisting this pre-programmed cell death, known as 'apoptosis.'

Research has discovered that curcumin, the yellow pigment uses a number of diverse mechanisms to convince cancer cells to switch back on the self-destruct mechanism within cancer cells. But, in general, curcumin essentially reprograms cancer cells to kill themselves as they were originally programmed to do!

Since curcumin employs so many different ways of killing cancer cells, researchers postulate that cancer cells might not develop resistance to curcumin (the way they do against certain chemotherapies), and it's the reason why it's so effective against so many different kinds of cancer. Curcumin's affordability, accessibility and ease of administration however, make it an unattractive candidate for pharmaceutical company cancer therapies...

It's been extensively reviewed in 5,900 research studies and proved in over a billion Indian people.... It cannot be wrong and it's got a track record of over 3,500 years of use in Indian traditional medicine and cooking.

Curcumin is the active ingredient in the curry spice called turmeric.

It has an incredible potential in cardiovascular health, brain support, liver function, vision support, and a whole lot more. It works by reducing oxidative stress in your brain cells. Now, oxidative stress is bad news anywhere in your body—but it can spell real trouble in your brain cells. It contributes to that all-too-familiar age-related memory decline.

And curcumin does a lot more than just nourish our brain. It also helps to protect your heart and blood vessels against free radicals—which I believe is the most important thing you can do to keep your heart (and brain) healthy.

Tumeric

Unfortunately, while there's some curcumin in whole turmeric, there's not enough in the regular spice to achieve clinically relevant results. The turmeric root itself contains only about 3% Curcumin. Another major limitation of curcumin as a therapeutic agent is that it is poorly absorbed. When taken in its raw form, you're only absorbing about 1% of the available Curcumin.

There are better ways to get the most out of your turmeric, and remember it is FAT soluble and not water soluble:

- Blend the Curcumin with some Coconut oil, and keep in fridge. It can be sliced into smaller amounts. The plaque on your teeth is fat and not water soluble – so using a little cube as a toothpaste with Bicarb, will help whiten your teeth naturally.
- Sprinkle some on an avocado
- Dissolve it in a tablespoon of coconut oil before adding it to a smoothie

- Stir it into olive oil and then toss in fresh vegetables
- Consume turmeric or curcumin with black pepper. 'Adding black pepper to turmeric or turmeric-spiced food enhances curcumin's bioavailability by 1,000 times, due to black pepper's hot property called piperine,' **says nutritionist** Stacy Kennedy.
- Liposomal Curcumin – make your own. You need a blender, non GMO sunflower lecithin liquid and then blend the Curcumin into a mixture. Don't forget the black pepper.

Great care must be taken to prevent staining your clothes and kitchen surfaces. It's a significant enough problem to have been dubbed 'yellow kitchen syndrome,' as it's virtually impossible to get the stains out. Turmeric is in fact an excellent dyeing agent for fabrics, rendering them a yellow-orange colour. Once I took too much Curcumin with Coconut oil. One of my colleagues at work was quick to notice the tinge on my skin. Curcumin proved to be very effective because it's a fat-loving or lipophilic molecule. Preparations in fat has a 7 to 8 times higher absorption than the raw, unprocessed 95-percent-concentration of dry powder.

In fact, current research is proving that curcumin deserves a special place in medicine. I am very impressed with the healing abilities of Curcumin, proving itself with so many studies. It is an:

- **Antioxidant**, 5 to 8 times more powerful than vitamins C and E when it comes to combatting damaging **free radicals** linked to aging and many health disorders;
- **Anti-inflammatory**, easing conditions such as arthritis, **gastritis** (inflammation of the stomach lining), and **cystitis** (bladder inflammation);
- **Anti-bacterial** infection fighter;
- **Anti-tumour** agent, in test tubes and real life;
- **Anti-beta amyloid** substance, helping protect the brain from the plaque involved in **Alzheimer's**.

1. Curcumin is a Natural Anti-Inflammatory Compound

There are times when inflammation can save your life. For example, you've probably noticed that if you accidentally cut your finger the area turns red and swells a little. That's because your body is sending protective white blood cells to the scene of the injury, where they can do battle with bacteria and other invaders. As the wound heals, the redness and swelling disappear and the skin over the wound closes, leaving you as good as new. This is how short-term, or acute, inflammation works.

There is another scenario involving inflammation, though, and it doesn't have such a happy ending. Long-term inflammation throughout your body is very common these days, brought on by things like a poor diet, bad fats, and environmental toxins. Chronic inflammation operates the same way as the cut finger example above, except that chronic inflammation can affect your entire body, simmering quietly in the background as it damages cells and tissues.

Even worse, you probably aren't aware of inflammation because it operates under the radar. Generally, doctors don't talk about inflammation itself, but rather about the conditions it causes, such as arthritis, gastritis, bursitis, and so on. (Any medical condition ending in '-itis' involves inflammation.) It is now believed that chronic, low-level inflammation plays a major role in almost every chronic, Western disease. This includes heart disease, cancer, metabolic syndrome, Alzheimer's and various degenerative conditions.

So if you've been diagnosed with one of these disorders, you're living with chronic inflammation. Another way to determine if inflammation is a problem for you is by asking your physician for a CRP (C-reactive protein) test, which simply measures a marker for inflammation in your blood, which puts you at increased risk of heart disease. Personally, I take curcumin every day, not because I have widespread inflammation, but because I don't want to develop the condition. So far, that pre-emptive approach is working well for me.

It turns out that curcumin is strongly anti-inflammatory, it is so powerful that it matches the effectiveness of some anti-inflammatory drugs

Curcumin actually targets multiple steps in the inflammatory pathway, at the molecular level. Curcumin blocks NF-kB, a molecule that travels into the nuclei of cells and turns on genes related to inflammation. NF-kB is believed to play a major role in many chronic diseases. In several studies, its potency has compared favourably to anti-inflammatory pharmaceutical drugs... except without the side effects.

2. Neurodegenerative diseases

As the years go by, your bodily functions and immune system tend to slow down. Hard-working, protective cells known as macrophages find it harder and harder to fight off damaging microbes and perform other duties related to good health. As a result, the likelihood of developing a degenerative disease, such as Alzheimer's, increases.

Although the exact cause of Alzheimer's remains a mystery, one current theory holds that aging macrophages simply can't protect brain nerve cells from the build-up of a toxic substance known as beta-amyloid. Enter curcumin in the equation and studies do show that it enhances memory and reduces other age-related brain malfunctions. These results are from animal studies, and need to be verified with human clinical trials. Countries like India, where turmeric is a common ingredient in food, have some of the lowest levels of Alzheimer's in the world.

Back in the day, it was believed that neurons weren't able to divide and multiply after early childhood. However, it is now known that this does happen. The neurons are capable of forming new connections, but in certain areas of the brain, they can also multiply and increase in number. One of the main drivers of this process is Brain-Derived Neurotrophic Factor (BDNF), which is a type of growth hormone that functions in the brain. Many common brain disorders have been linked to decreased levels of this hormone. This includes depression and Alzheimer's disease. Interestingly, curcumin can increase brain levels of BDNF.

3. Curcumin spell bad news for Cancer

Recent research has demonstrated that curcumin counteracts a number of the initial steps in the development of cancer, including the spread of cancer cells (metastasis) and mechanisms that allow tumours to grow. And a recent review of more than 700 clinical trials involving curcumin and cancer found curcumin to be as effective as some pharmaceutical drugs in treating cancers of the prostate, colon, breast, liver, oesophagus, and mouth. Currently, researchers are testing Curcumin's effectiveness against cancer of the breast, prostate, head and neck, respiratory tract, colon, pancreas, and multiple myeloma. Many of these studies are preliminary and still at the animal stage, but encouraging human trials are also ongoing.

In one study in 44 men with lesions in the colon that sometimes turn cancerous, 4 grams of curcumin per day for 30 days reduced the number of lesions by 40%

Studies have shown that it can reduce angiogenesis (growth of new blood vessels in tumours), metastasis (spread of cancer), as well as contributing to the death of cancerous cells Other studies involving curcumin and cancer have shown that it:

Reduces *urinary tract side effects* that are common in prostate cancer patients undergoing radiation;

Enhances the effectiveness of certain types of *chemotherapy* when used as a pre-treatment;

Interferes with development of *stem cells*, 'baby' cancer cells that are not affected by traditional chemotherapy;

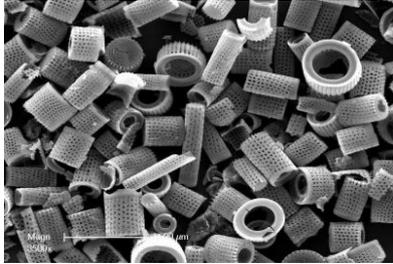
Interrupts increases in *NF-kappa-b*, an inflammation regulator responsible for initiating the cancer cascade, the 12-year-long process that creates the disease.

4. Pain Relief

In conventional medicine, over-the-counter and prescription pain relievers are used to keep patients with chronic inflammation comfortable, but little or nothing is done to treat the source of the problem. Unfortunately, a steady diet of pain relievers can take a serious toll on your body. Side effects of non-steroidal, anti-inflammatory drugs (NSAIDs), a category that includes everything from

aspirin to COX-2 inhibitors such as Celebrex, can range from unpleasant (irritated stomach lining) to life threatening (liver damage and internal bleeding). Treating inflammation with curcumin, however, avoids all these risks. For example, studies have repeatedly shown that curcumin relieves joint pain from arthritis just as well as NSAIDs or the expensive, dangerous injectable drugs that now carry the FDA's 'black label' warnings.

8. DIATOMACEOUS EARTH



[Detox with Diatomaceous Earth to remove Allergies, Mercury, Chemicals, GMOs, Parasites](#)

Characteristics of Diatomaceous Earth (DE)

The fine white tasteless powder, works mechanically to destroy a wide range of pests, insects, parasites and pathogens by cutting through the exoskeleton, absorbing bodily fluids and causing them to die. Food grade diatomaceous earth is chemical-free and non toxic. Diatoms, the ocean's 'spiny honeycombs,' are fossilized, and were formed when these microscopic algae-like plants died and remained compounded in the earth's surface as skeletal remains. These organisms, much like a mollusc emits lime-carbonate, had the ability to emit silica. Scientists refer to these clay-like, chalky remains as diatomite. When we mine the earth, we discover these remains in the form of a thick white siliceous powder.¹

It does its work in 4 different ways:

1. DE looks like a cylinder/honeycomb full of holes. This cylinder/honeycomb has a very strong negative charge. As the millions of cylinders move through the stomach and digestive tract, they attract and **absorb** bacteria, fungi, protozoa, viruses, endotoxins, pesticide, and drug residues, E-Coli, and heavy metals. These pathogens are trapped inside the cylinder and passed out of the body. Additionally, any larger parasites that happen to be in the stomach or digestive tract are 'cut up' and killed by the sharp edges of the DE. All of these activities result in a much healthier body with less sickness. This better feeling comes from all the 'junk' being removed from the body and boosting our immune systems. A strong abrasive, Diatomaceous Earth is composed of a unique combination of 33% silicon, 19% calcium, 5% sodium, 3% magnesium and 2% iron, as well fifteen other trace minerals like boron, manganese, titanium, copper and zirconium.²
2. DE is very hard. On the hardness scale diamonds are a 9, DE is a 7. This is very important, because as those millions of tiny hard and sharp DE cylinders pass through the small and large intestines, they 'scrub' the walls (Note they do not harm the intestinal wall) **detoxifying the body**. After only a few months of taking Diatomaceous Earth, the intestine wall is no longer coated with mucus, gunk, and moulds! Thus, DE helps promote regular bowel movements and a healthier colon. A clean healthy colon prevents polyps, cancers, ulcers, and continued detoxification of the body that a dirty colon produces. This day in age, many people are doing colonic and detox programs, hydro colonic therapy, etc. and DE helps promote this same type of cleansing. People report increased energy, better sleep, and/or needing less sleep. This is a result of the food and nutrients that are taken into the body being better absorbed into the blood stream. A coated, toxic colon does not allow many nutrients from our food to be properly absorbed. A toxic colon and intestinal tract can also result in overweight and obesity, as people lack the proper nutrients their body needs to promote optimum health, so they, and their pets, continue to eat more food in an attempt to obtain the nutrients their bodies are lacking from being toxic.
3. A small amount of food grade diatomaceous earth is absorbed into the blood stream. As it moves throughout the body they clean and breakup plaque in the blood vessels and also destroy bad fats. Many have lowered their **cholesterol** and notice that their **high blood pressure** goes

down. As the DE eventually dissolves in the blood, the many health benefits of the silica content are realized.

4. Food grade diatomaceous earth offers important benefits, particularly related to the fact that it is composed of approximately 85% amorphous **silica**. In the past, humans were able to consume enough silica in food, but as modern hybrid foods and toxic soil became a reality, studies suggest that only about 1/3 of the silica that we need is present in our fruits and vegetables. This is a sad fact, given that silica is such a necessary component for the health of our tendons, cartilage, blood vessels, and bones. It is also needed for the health and strength of our skin, teeth and nails. It even contributes to the health of almost all of our vital organs, including the heart, liver and lungs.²

The oldest use of diatomaceous earth has been as a toothpaste and facial scrub, due to its mild abrasive capacities. Similarly, it acts as a mild abrasive in animals, removing [intestinal invaders and other harmful organisms](#) from the digestive tract, stimulating digestion and absorption of nutrients by sweeping foreign bodies out of the system.

Other Benefits of Diatomaceous Earth:

- Add Diatomaceous Earth to your diet to detox parasites that can contribute to food intolerance, nausea, bowel discomfort, pain, itching, asthma, sinus infections, Morgellon's disease, and a host of other allergic-type reactions.
- Increases mineral absorption: As silica is water-soluble and does not remain in the body for very long, supplementing with diatomaceous earth aids the body in keeping optimal absorption of these important minerals.
- DE detoxes mercury, cadmium, lead and other heavy metals; removes poisons from chemtrails, radiation and may alleviate the effects of GMOs. DE possesses antibacterial, anti-fungal and antiviral properties.
- May contribute to more regular bowel movements, as it acts as an [internal cleansing aid](#).
- Contains anti-fungal properties.
- Centres for Disease control recommends it as a natural method for neutralizing toxic spills.
- It is also a common ingredient in oil-absorbing natural facial products and masks.

How do humans take food grade diatomaceous earth?

Always use food grade DE!!!! To consume DE orally, start with half a teaspoon and work up to two heaping tablespoons. Mix thoroughly in four ounces of water. Drink immediately and follow with another eight ounces of water. Take on an empty stomach. Continue drinking water throughout the day, because DE can cause constipation. Initially, you may experience a Herxhemier reaction, which can cause abdominal discomfort and flu-like symptoms. This is a normal response to detoxing, as parasites and pathogens die, releasing their toxins into your system for elimination. The symptoms disappear after a few days. It's best to take it away from food because of its detox benefits.

Benefits LIVESTOCK

Avoid applying to flowers where beneficial insects like bees, ladybugs and butterflies visit

- It is used in livestock feed to control intestinal parasites, which are lacerated by the abrasiveness of diatomaceous earth. It has also shown great success in ridding animals of E.coli, as well as other forms of bacteria and viruses.
- It's a natural insecticide, as its absorption properties actually dehydrate the waxy outer layer off of the insects' exoskeleton, causing them to expire. Food and medical-grade diatomaceous earth is also used as a safe and non-toxic way to de-worm pets, and it has even been used as a natural form of cat litter.

- Add diatomaceous earth to bulk grains and legumes to keep opportunistic pests out of your pantry. Use in bags of dried dog, cat and foods for livestock.
- Yard and garden - Sprinkle DE along outside edges on window sills and doors to prevent spiders and ants from entering the house
- Make a ring around the stem on the soil to prevent crawly insects from munching stems.
- Apply to compost and manure piles to reduce odour and control flies
- Apply around garbage pails to keep flies away
- Carefully apply to your pet's coat to kill fleas. DE also prevents new fleas from taking hold and destroys ticks. Avoid making lots of dust when treating your animals. Wear a mask and drape a lightweight towel over the animal's face during the application. [Diatomaceous earth](#) is safe for use on pets as long as precautions are taken to protect them from inhaling the dust. Add small amounts of DE to pet's food to kill internal worms and other parasites.
- Add to kitty litter to reduce odour and kill fleas
- Sprinkle diatomaceous earth on furniture, rugs and in cracks around the edge of baseboards to kill insects. Leave for several hours or longer, then vacuum.

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9. FOOD ENZYMES, SPROUTING & FERMENTATION

Indeed, all living things, including humans, bacteria and plants, make many special enzymes that regulate life functions. Enzymes make life possible.

Enzymes are the 'labour force' that builds your body. You may have all the necessary building materials, but to build a house you need workers. Similarly, you may have all the nutrients – vitamins, proteins, minerals, etc., for your body, but you still need the enzymes – the life element – to keep the body alive and well. Enzymes are the 'labour force' that builds your house. You may have all the necessary building materials, but the builders need to erect the house. Similarly, you may have all the nutrients – vitamins, proteins, minerals, etc., for your body, but you still need the enzymes – the life element – to keep the body alive and well.

Where do digestive enzymes come from?

You obtain most of your digestive enzymes from the food that you eat, and your body also produces enzymes of its own. **Plant enzymes** are much more effective than body enzymes because they begin pre-digestion in your mouth, they are not destroyed by the acids in your stomach, and they function in both an acid and in an alkaline environment. Unfortunately, because of soil depletion, herbicide sprays, boiling, microwaving and pasteurization, etc., we do not obtain anywhere near the number of enzymes that we need.

Human cells naturally produce about 10,000 different enzymes which are essential in normal metabolism. Each enzyme usually has only one function, and they are specific in their function. Enzymes are required for your body to function properly, for without enzymes you wouldn't be able to breathe, swallow, drink, eat, or digest your food. Metabolic enzymes in the liver also act to neutralize poisons and carcinogens, such as pollutants, DDT and tobacco smoke, changing them into less toxic forms, which the kidney can then eliminate.

For example, some enzymes in a tomato help it to ripen while other enzymes produced by the tomato cause it to decay. Not only tomatoes, but fruits like apples, banana, grapes and vegetables like potato also turn brown with time. This is due to the presence of a specific enzyme just below the outer skin that brings about changes in the life of foods.

Plant seeds, especially legumes, nuts and seeds contain unique enzymes, referred to as inhibitors. Inhibitors are protein substances that bind to a hibernating plant enzyme and decrease or interfere with this enzyme's activity. Inhibitors allow seeds to lie dormant and wait for good growth conditions; like rain and sunshine warmth, to begin sprouting and grow into a young new plant. Inhibitors nullify the body's own digestive enzymes from working on them.

Let me explain.

Peanuts have an outer shell to keep peanut seed protected from the outside.

The seed has another outer protective skin (brown-red colour) that has inhibitor chemicals that make the seeds distasteful and even poisonous to predators; allowing seeds to survive.

When the outer peanut skin becomes soaked with rain water, the water leaches out most of the inhibitor. With the inhibitor removed by the water, the nutrients in the peanut seed begin to release the stored vitamins, minerals, fats and proteins. These nutrients allow the seed to sprout and germinate a root and stem and grow into a plant.

Pumpkin seeds, almonds, hazelnuts, hemp seeds, pecans, walnuts and a host of other nuts and seeds are full of enzymes while in their raw, natural forms. However, once you toast, roast, fry or boil them, their enzymes are completely destroyed. Pasteurizing nuts and seeds to extend their shelf life also destroys the few enzymes they contain, and all of these processes dramatically reduce the nutritional value of nuts and seeds as well.

However, raw seeds are safe to eat when the water leaches out the inhibitor enzymes. Humans may be unaware that inhibitor enzymes in seeds can cause allergies and other health problems. Such raw seed problems can readily be avoided and this is dealt with.

The table below lists some raw foods that contain enzyme inhibitors. Since the reaction that they can trigger can be quite severe, it is worth viewing the different food inhibitors and the health problems they can cause.

Food item:	Inhibitors:	Health problem:
Alfalfa	non-protein amino acid; L-canavanine	Haemolytic anaemia lupus?
Almonds	Phytic acid, tannic acid and an enzyme inhibitor in their brown skin	Allergy
Bananas	None	
Beans Lima [raw]	Trypsin, linamarin, a cyanogenic glucoside	Cause gas; illness; allergy
Cassava	Amygdalin	Allergy
Celery, celery root, parsley, & parsnips	Psoralens; aka furocoumarin	Sensitivity to sunlight, rashes, blisters, and skin discoloration
Eggs: white	Ovomucoid or trypsin, avidin	Egg allergy, inhibits Biotin absorption
Figs	Psoralens	Phytophotodermatitis
Grass pollen	Profilin, rPhl p 1 and rPhl p 5	Allergy
Kelp based supplement	Arsenic compounds, arsenosugars, and arsenobetaine	Neurologic, dermatologic, and gastrointestinal symptoms
Klamath Lake Blue-Green Algae	Microcystin, hepatotoxin microcystin	Liver, kidneys and brain; get cold; have difficulty concentrating; tingling and numbness
Milk [cow's]	Lactoferrin; calcium and bovine casein	Lactose intolerance; inhibit iron absorption; allergy
Mushrooms: Common Agaricus bisporus & portobello	Agaritine which metabolizes into a hydrazine	Allergy
Nuts: pecans, peanuts, walnuts	Unknown, phytic acid	Allergy; anaphylaxis
Potatoes with green skin	Solanine	May cause arthritis
Potato	Glycoalkaloids alpha-solanine and alpha-chaconine	Can cause severe illness acetylcholinesterase inhibitors
Potato Sweet	Trypsin	Allergy
Rubarb leaves	Oxalic acid, anthraquinone glycoside	Toxic to kidneys
Seaweed hijiki	Inorganic arsenic	Anaemia and liver damage
Seeds: Flax, sunflower	Phytic acid	Interfere with body enzymes
Soy Raw	Trypsin	Goitrogens
Spinach	Oxalate	Prevents Fe, Ca absorption
Wheat	Gluten, prolamin, a-amylase/trypsin	Allergy, anaphylaxis

Many inhibitors in plants have yet to be identified; thus this list is incomplete. Plant inhibitors can induce reactions that vary from very mild to severe symptoms when ingested by humans.

Reactions to ingesting inhibitor enzymes may include varying degrees of: bloating, feeling sick or nausea, headache, vomiting, diarrhoea, skin rash, inflammation, dizziness, joint pain; allergy and severe illness. The severity of health problems stated in the table are general and will vary from person to person, due to dosage and individual biochemical diversity.

Inhibitors can also affect how nutrients in a plant or seed are absorbed or ingested. An example is Phytic acid as it has been reported that it can impair the absorption of minerals and trace elements such as calcium, magnesium, zinc, and iron in humans.

There are two ways to destroy enzyme inhibitors:

- Cooking the food destroys the good plant enzymes. Plant enzymes are more heat-sensitive than vitamins and are destroyed by cooking temperatures above 118° F, as in baking, cooking, pasteurization, canning, and microwaving.
- Soaking raw seed plants with skin in warm acidic water for between 6 to 24 hours, and then draining the water. Each raw nut and seed requires a different amount of soaking time to eliminate inhibitors. Raw almonds and walnuts must soak for eight hours; pistachios and pine nuts must soak for two. The water releases the protective protein inhibitor in the seed hull or outer skin coating, allowing germination and sprouting to start. **Sprouting** deactivates the enzyme inhibitors and makes nutrients in grains, nuts and seeds more readily available and also increases the content of natural good enzymes that help begin the pre-digestion of grains and seeds in the mouth and stomach. Plant enzymes work in the mouth and the stomach at their own body temperature and pH level, where they predigest food before the stomach enzymes do. Plant enzymes also operate in the small intestine, aiding pancreatic enzymes in continuing the digestive process. A major point being made here is that enzymes that occur naturally in plants are a prerequisite for digestive enzymes in the body to be effective.

Using food enzymes to your advantage:

- Buy raw seed foods like beans, which have not been heated or roasted.
- Soak the raw seeds in water for 4 hours, drain the water and continue soaking for an additional 4 to 24 hours.

Nuts and seeds contain enzyme inhibitors that protect the nuts and seeds by keeping them in a hibernation state until conditions are proper for germination, such as a heavy rain storm. Soaking nuts and seeds in a bowl of water is one way of tricking the enzyme inhibitors into thinking that it's time to let the seeds 'wake up' and start to grow.

- Drain the water & Rinse: After seeds have soaked for their recommended times drain the water and it will look dirty due to the enzyme inhibitors that have been removed from the nuts and seeds. Then rinse the seeds well before eating.
- Dry and eat healthy living seeds. These de-inhibited seeds have growth enzymes that will help to release the nutrients and start digesting the seed contents before you chew the seeds in your mouth. Chewing the seeds stimulates the release of more digestive enzymes from the seeds.

Live vs dead foods: Live foods are raw foods that have not been heated above 117 degrees Fahrenheit. Their growth-digestive enzymes are still active and thus alive. Seeds and food that have been heated above 118 degrees Fahrenheit are referred to as dead foods and have their enzymes destroyed. Dead foods are considered to be more difficult to digest.

There are many different kinds of enzymes. Enzymes are complex proteins that act as catalysts in almost every biochemical process that takes place in plants and human bodies. Most enzymes need help from vitamins, minerals, amino acids and especially magnesium, to work in the human body. Raw foods have the specific enzymes to digest themselves.

All legumes, raw nuts and seeds, contain enzyme inhibitors. The inhibitors can prevent those foods from growing. The inhibitors also nullify the food's own digestive enzymes from working on them. This is why they are so difficult to digest and why we may feel tired after eating them.

Grains, nuts, legumes and seeds are rich in enzymes, as well as other nutrients, but they also contain enzyme inhibitors. Unless deactivated, these enzyme inhibitors can put an even greater strain on the digestive system than cooked foods. Soaking raw seeds in warm acidic water deactivates enzyme inhibitors and makes nutrients in grains, nuts and seeds more digestible. Convenience and preserved foods have been either heated and/or altered with chemical preservatives, thereby destroying their natural enzymes.

What Happens when We Eat Cooked Foods

A diet composed exclusively of cooked food puts a severe strain on the pancreas, drawing down its reserves, so to speak. If the pancreas is constantly over stimulated to produce enzymes that ought to be in foods, the result over time will be inhibited function. Humans eating an enzyme-poor diet, comprised primarily of cooked food, use up a tremendous amount of their enzyme potential in the outpouring of secretions from the pancreas and other digestive organs. The result, according to the Dr. Edward Howell is a shortened life span, illness and lowered resistance to stress of all types. He points out that humans and animals on a diet comprised largely of cooked food have enlarged pancreas organs while other glands and organs, notably the brain, actually shrink in size.

Foods Naturally High in Enzymes

Most fruits and vegetables contain few enzymes; exceptional plant foods noted for high enzyme content include extra virgin olive oil, raw honey, grapes, figs and many tropical fruits including avocados, dates, bananas, papaya, pineapple, kiwi and mangos. It is simple to change the structure of certain foods to increase their enzyme value.

More ways to create Foods that are Rich in Enzymes

1. Sprouting



More than twenty years ago, scientists discovered that certain vegetables have the power to prevent cancer, and it is traced in Broccoli. It is known as Sulforaphane, inducing an enzymes to deactivate carcinogens and free radicals/ It enhances the body's own defence system against cancer-causing chemicals.

We have all heard that Broccoli is healthy while Broccoli **Sprouts** contain up to 100 times the level of Glucoraphanin (the precursor of Sulforaphane) found in mature Broccoli. So you get as much antioxidant in 1 ounce of Broccoli Sprouts as you would if you ate 3 pounds of fully grown Broccoli. They are also loaded with antioxidants, rich in vitamins, minerals and fibre, have generous amounts of folic acid and contain some of the highest levels of vitamins A and C of any food.

Benefits of Sulforaphane:

- Powerful anti-cancer properties that can enhance the capacity of cells to fight cancer
- May prevent cells from turning cancerous.
- Stimulates cellular antioxidant defences within the body
- Activates key enzymes in liver detoxification
- May cause human cancer cell death (Apoptosis)

- Offers oxidation protection
- Anti-inflammatory

How does Sulforaphane fight cancer?

Sulforaphane, a sulphur compound, has also been shown to kill cancer stem cells, thereby slowing tumour growth. Some researchers believe eliminating cancer stem cells may be key to controlling cancer.

This is something current chemotherapies cannot do, but food can! I have long touted the cancer busting power of broccoli; ever since studies in the mid-1990s showed that the broccoli compound glucoraphanin -- a precursor to Sulforaphane -- boosts cell enzymes that protect against molecular damage from cancer-causing chemicals. * Proceedings of the National Academy of Sciences October 14, 1997 vol. 94 no. 21 11149-11151; Johns Hopkins University September 15, 1997

Studies have also found that

Sulforaphane activates the switches within the cytoplasm of the cell. These switches are able to switch on lazy genes or switch off over active genes. How interesting.

Nrf2 is one of these switches. It switches on the cell's own defence system. It actually activates more than 200 or so different genes, all of which code for different aspects of cellular defence. The most powerful known substance to activate this switch is Sulforaphane.

Nrf2 (switch) activates three aspects in the cell:

- Detoxification enzymes which break down toxins to harmless substances
- Antioxidant production of Glutathione which neutralizes cellular toxins or quenches excessive free radicals
- Membrane efflux pump which pumps toxic wastes out of the cell by activating shuttles in the cell's membrane.

Another switch is called NF-kB (NF-kappa B). NF-kB is a transcription factor as well but instead of activating the cell defence it activates the genes which promote inflammation. NF-kB is the one which initiates an inflammation and turns the inflammation off when the repair process has taken over. Unfortunately in a person who has chronic arthritis for example the inflammatory process is not shutting off. Something has kept the NF-kB switch stuck in the ON position.

Responsible for that can be certain foods such as those found in deep fried foods which keep the NF-kB switch turned on.

Luckily we know certain plant molecules like Sulforaphane that has the ability to switch off NF-kB to reduce the tendency for inflammation and switch on Nrf2 to help cells to protect themselves against disease.

Sulforaphane is quickly and easily absorbed by the body once ingested. The enzyme Myrosinase converts Glucoraphanin, a Glucosinolate, into Sulforaphane upon damage to the plant and the breaking of the cell wall (such as from chewing).

It is important to note that Sulforaphane is unstable and cannot be produced without Glucoraphanin and Myrosinase. Unfortunately cooking destroys the enzymes and therefore little or no Sulforaphane can be produced through our bacterial flora.

Therefore the best yielding of Sulforaphane is achieved through the consumption of **sprouted broccoli seeds**. If someone has the dedication to grow their own sprouts from organic broccoli seeds and consume it daily in a sufficient amount then that would be a very good option otherwise a broccoli sprout powder is a very good alternative.

Did you know broccoli sprouts contain nearly 50 times more antioxidants than mature broccoli plants? Always use organic seeds, grains or legumes for sprouting. It is much easier to sprout grains and legumes than seeds and nuts since the fat content is lower. It takes much longer for nuts and seeds to sprout so most people soak them prior to eating them.

For sprouting all you need to launch the process is filtered or purified water, a little space on your kitchen counter, seeds and a jar. Sprouts are edible any time from the soaked stage through seven days of sprouting or 10 days into a shoot, anywhere you like them. To get started, choose a container that drains well, for example a canning jar with a stainless steel screen and canning lid or you can also buy commercial sprouters and trays. Then it's just a process of soaking, rinsing and draining. A very popular sprout seed is Broccoli. It is famous for its antioxidant content. Broccoli sprouts can contain something like 50 times the sulforaphane found in mature broccoli, by weight, Broccoli is a very tasty sprout - it is the fresh vegetable. It is easy to grow in hot and cold weather and you need to soak it in water for 8 to 12 hours and then rinse and soak in water 2-3 times a day. It is ready for consumption in 3-6 days.

Easy to Grow

Broccoli sprouts look and taste similar to alfalfa sprouts, and are easily grown at home, even if you're limited on space. I strongly recommend using organic seeds, and a pound of seeds will probably make over 10 pounds of sprouts. From the researcher's calculations mentioned earlier, this can translate up to as much cancer protecting phytochemicals as 1,000 pounds (half a ton) of broccoli! Growing sprouts in Ball jars is too time consuming. Growing them in soil is a far easier option and it produces far more nutritious and abundant food. With Ball jars method, you need to rinse them several times a day to prevent mould growth. Trays also take up less space. On average you will consume a tray of sprouts every 2-3 days and to produce that much food with Ball jars, you will need dozens of jars. I simply don't have the time or patience for that. On the internet you will find many helpful instructions on how to grow sprouts.

2. Fermenting

Traditionally, fermented foods contain living microorganisms that replenish the friendly bacteria in your digestive tract. Fermentation is a preservation technique to create lactic acid in sour foods such as kim chi, sauerkraut, yoghurt, kefir and more. Fermentation neutralizes unhealthy chemicals found in grains and beans. Grains and beans all contain phytic acid. Phytic acid blocks the absorption of calcium, phosphorus, iron and zinc. A diet high in unfermented whole grains can lead to mineral deficiencies and bone loss.

Reasons to Eat Fermented or Cultured Foods

- Improves digestion and absorption. Fermenting our foods before we eat them is like partially digesting them before we consume them. Sometimes people who cannot tolerate milk can eat yogurt. That's because the lactose (which is usually the part people can't tolerate) in milk is broken down as the milk is fermented and turns into yogurt.'
- Restores the proper balance of bacteria in the gut. Do you suffer from lactose intolerance? Gluten intolerance? Constipation? Irritable bowel syndrome? Yeast infections? Allergies? Asthma? All of these conditions have been linked to a lack of good bacteria in the gut. Healthy bacterial cultures such as Lactobacillus are present in cultured vegetables. The more healthy microflora one has the more the body's receptors are blocked when exposed to dangerous bacteria and viruses.
- Raw, fermented foods are rich in enzymes. According to the Food Renegade blog, 'Your body needs enzymes to properly digest, absorb, and make full use of your food. As you age, your body's supply of enzymes decreases. This has caused many scientists to hypothesize that if you could guard against enzyme depletion, you could live a longer, healthier life.'
- Fermented vegetables are high in antioxidants.
- Excellent way to preserve food, ensuring vitamin-rich food during winter months. Fermenting food helps to preserve it for longer periods of time. Milk will go bad in the fridge but kefir and

yogurt last a lot longer. Sauerkraut, pickles and salsa will keep for months. And if you've got a huge batch of produce in your garden that you don't know how to use up — ferment it.

- Incorporates the tastes of 'sour' in the five tastes of Traditional Chinese Medicine. All five tastes must be eaten to ensure optimal health, they are: salty, sweet, sour, bitter and pungent.
- Creates new cultures in our intestinal eco-system, which then create vitamins, folic acid, riboflavin, niacin, thiamin and biotin.
- Removes toxins from food: all grains contain phytic acid which blocks absorption of zinc, calcium, iron and magnesium. Soaking and fermenting grains neutralizes the phytic acid.
- Strengthens the immune system
- It's Affordable. There's nothing fancy required for this hobby. And many of the foods required to make these recipes are very cheap. You can use inexpensive cabbage to make sauerkraut, or get yourself a kombucha scoby and with just pennies' worth of water, sugar and tea, you've got a health elixir.
- Fermenting food increases the flavour. There's a reason humans enjoy drinking wine and eating stinky cheese. There's a reason we like sauerkraut on our pizza and salsa on our tortilla chips. It tastes good.

Fermentation makes foods more nutritious, as well as delicious. Microscopic organisms — our ancestors and allies — transform food and extend its usefulness. Fermentation is found throughout human cultures. Hundreds of medical and scientific studies confirm what folklore has always known: Fermented foods help people stay healthy.

Many of your favourite foods and drinks are probably fermented. For instance: Bread, Cheese, Wine, Beer, Mead, Cider, Chocolate, Coffee, Tea, Pickles, Sauerkraut, Kimchi, Salami, Miso, Tempeh, Soy Sauce, Vinegar, Yogurt, Kefir, Kombucha.

In addition to enhancing flavours, fermentation also allows food items to be preserved well past their shelf-life date, says Katz.

These foods are alive, they're dynamic, but they're extremely effective strategies for preserving food through a few seasons, which is really the point.'

Starting With Sauerkraut

To begin with I recommend you to start with sauerkraut because it's particularly easy to make. To begin, take a cabbage and any additional vegetables you want and chop it up. Put your chopped veggies in a large bowl and lightly salt them. After salting the veggies, which helps get rid of excess water, we need to squeeze them for a few minutes to release their juices, so that they can be submerged under their own liquid. We can salt the cabbage and wait for 24 hours before placing it in a Jar, so more juices are released. We can then stuff the veggies and the juices they've released into a jar.

You need to press really hard to force out any air bubbles, and you want to make sure that the vegetables are pressed down under their juices. And then just seal the jar — but be aware that pressure will be produced, so you don't want to leave it for days and days.'

It is recommended to check the jar on a daily basis to release the pressure — and then after maybe 3-5 days, enjoying your new creation.

The flavours transform very quickly, he says. The bacteria proliferate, the texture changes, and what I recommend you just to taste it at periodic intervals. And then you're getting a sense of whether you're liking it more and more as the flavour gets more acidic or whether it's acidic enough and you want to move it into your fermentation-slowness device, which is your refrigerator.

Once you've mastered the simple kraut, you can add spices or other items like apples or cranberries to your jar. You can then experiment with Pineapple and many other exotic fruit to make delicious enzymatic fruit drinks to enjoy 15 minutes before your meal. It will save your pancreas.

10. FULVIC AND HUMIC ACID

The 'electrolyte soup' of our cells

Though virtually unknown to the layman, there is perhaps no substance more vital to life, (with the possible exception of oxygen and water) than the biologically derived compounds known as HUMIC and FULVIC ACIDS. Fulvic acids enter into all life processes within plants and animals and as such wears many hats. It has extraordinary potential, and it occurs naturally in organic plants and soils. It proved its worth in the plant kingdom as it can balance and energize cell life and biological properties, in whatever it comes in contact with; whether it is our cells, or the cells belonging to the animal, fish or plant kingdom.

Doctors have known for years that everyone needs at least 90 nutrients to maintain optimum health. These nutrients include a minimum of 59 minerals, 16 vitamins, 12 amino acids and 3 essential fatty acids. You will never find them in a Burger King. But eating good tasting food and swallowing a lot of vitamin pills does not guarantee absorption or utilization of those vital nutrients. When the body does not absorb nutrients the door is open for disease.

Scientists have found that fulvic acid is the element that makes nutrients absorbable, which gives it the ability to make a dramatic impact on all kinds of diseases and health problems that afflict us today. They call it the elixir of life and theorize that without it, nothing would live.

In fact, fulvic and Humic acids are very effective in neutralizing a wide range of toxic materials from heavy metals, radioactive waste, petro-chemicals and industrial waste that tests are soon to be conducted on a new system designed to compost land fill refuse; using the fulvic and Humic acids to safely render all toxins harmless. On the cellular level fulvic acid is superior for neutralizing toxins, heavy metals and other harmful substances and carrying these intruders out of the body. ¹

Indeed it is a Miracle Molecule

Fulvic acid is being called Nature's Miracle Molecule, because it does so many things—it wears so many hats. Reported claims of benefits that are a little short of astonishing.

For **Internal use** they are:

- Increased energy
- It's a ferocious antioxidant and free radical scavenger
- Chelates heavy metals and body toxins, removing them from the system
- Transports nutrients into the cells
- Extends the time nutrients remain active - potentiates the availability of essential nutrients
- Increases metabolism of proteins, contributing to DNA and RNA synthesis
- It's a powerful natural electrolyte
- Restores electrochemical balance
- Increases activity of a host of enzyme systems
- Helps rebuild the immune system
- Increases bioavailability of nutrients and minerals

Reported beneficial claims for **External use**:

- Treating open wounds, cuts and abrasions
- Healing burns with minimum pain or scarring
- Eliminating discoloration due to skin bruises
- Killing pathogens responsible for athlete's foot
- Acting as a wide spectrum anti-microbial and fungicide
- Treating rashes, skin irritations, insect and spider bites
- Neutralizing poison ivy and poison oak

The **Agricultural** benefits of fulvic acid do carry an enormous potential to heal our soils and to neutralize radioactive and toxic wastes.

Fulvic Shale - Its Origen

Fulvic shale is formed over the course of millions of years. As plants grew and died, they were preserved in today's deposit areas, compressed into the earth's crust. Many layers of plant material were trapped and their rich mineral content preserving the moisture of the prehistoric plant material. The deposits continued to compress as mud, sand and rocks were piled on top of the fulvic shale.

Today, these shale deposits have been found in regions that once featured thick, lush forests and plant life. Though this type of plant life may no longer exist there, the fulvic shale remains, still containing the abundance of minerals and trace elements that are vital to a human diet. As opposed to the average of

30 minerals and trace elements found in a typical soil sample, these locations boast over 77 trace minerals and elements which produce extremely nutritious crops for human consumption. Millions of years ago, all the Earth's soil was rich in minerals and trace elements needed for survival. Today, we can obtain this same type of nutrition through fulvic shale deposits.

Many people wonder how the plant materials in fulvic shale deposits became so rich in minerals and trace elements. In fact, it was photosynthesis that enriched those materials with the nutritious elements we need. Photosynthesis is a biochemical process which converts the sun's energy into a chemical energy. As sunlight is absorbed by a plant, the energy is used to form organic materials like nitrogen, water, oxygen and minerals. The energy is also used to convert metallic minerals to organic molecules which can be used by the body for nutrition.

Man cannot recreate photosynthesis. Microorganisms convert the minerals to a lower molecular weight, so they can be assimilated into the plant more easily. The bacteria 'soup' material creates a plant which is rich in fulvic acid, minerals and trace elements.

Fulvic acid a Supercharged mini battery charger

It is an acid ² created in extremely small amounts by millions of beneficial microbes working on decaying plant matter. ³ It is known that fulvic acid is a substance that is continuously formed by microbes from decaying plant and animal matter. Many of the beneficial effects of fulvic acid to plants and animals are known and the list just keeps growing. Still only the microbes who formed fulvic acid know how to make it and how it is structured. Every human attempt to either duplicate it or unmask its structure has failed.

Because of fulvic acid's low molecular weight ⁴ (small molecules) it has the ability to readily dissolve and bond minerals and nutritional elements into its molecular structure. Nutrients that have been chelated (gathered) by fulvic acid are in an ideal natural form to interact with and to be absorbed by any living cell. ⁵ Fulvic Acid is so powerful that one single fulvic acid molecule is capable of carrying 60 or more minerals and trace elements into the cells.

Fulvic acid excites the surrounding cellular electrical energy, the 'life force' of the body. When electrical energy is reduced in cells, they disintegrate and die. It is believed that electrical and chemical balances within the cell can be created and controlled by electrolytes, the body's mini battery chargers. Scientists tell us fulvic acid is one of the most powerful natural electrolytes known to man. These supercharged molecules balance cellular life, restoring the electrical potential that was once normal to the cell by charging, regenerating, regulating and delivering their living energies to the living cells. Fulvic acid maintains the ideal environment ⁶ for dissolved mineral complexes, elements, and cells to bio-react electrically with one another causing electron transfer, catalytic reactions, and transmutations into new minerals. ⁷ It helps with human enzyme production, hormone structures, and is necessary for the utilization of vitamins.

It has been found to be essential to living cells to continue its vital metabolic processes.

It is also one of the most powerful natural antioxidants and free radical scavengers known. It has the unique ability to react with both negatively and positively charged unpaired electrons and render free radicals harmless. It can either alter them into new useable compounds or eliminate them as waste.

Fulvic acid can similarly scavenge heavy metals and detoxify pollutants.

Fulvic Acids Metabolism Defined

Individual cells when properly nourished, are capable of producing many of their own amino acids, enzymes, and other factors necessary for all metabolic processes. Each cell, in addition to other processes, burns its own energy, maintains itself, manufactures its own enzymes, creates its own proteins, and duplicates itself.⁸

Scientists have identified at least 90 growth and maintenance nutrients which must be continuously supplied to the body to sustain healthful life. When they are supplied to our cells, the cells have no problem to create the building blocks of our life process. The building blocks present in the metabolic machinery are, in the great majority of cases, the same in other organisms of extremely different types.⁹ Humans can produce all but eight amino acids within their cells. The very complex process of all metabolic functions are carried on within the cell. If we fail to supply the cell with essential growth and maintenance nutrients we will experience a breakdown of these functions. When the breakdown is substantial we have the onset of disease or the manifestation of some related defect.

Our sick Soil causes sick Plants and People

In the beginning, our naturally fertile soils contained adequate amounts of humic and fulvic acids produced by resident microbes within the soil. They delivered nutrients and minerals to the plants. Largely our modern agriculture aims at one goal, an abundance of saleable products. Food quality is sacrificed for food quantity. To control disease and force yield, excessive amounts of nitrate fertilizers are applied to the soil. Such practices stun and destroy the indigenous microbial life within the soil, which destroys vital humic and fulvic acids. When microbes are depleted from the soils, they are no longer present to convert inorganic minerals into organic minerals needed by plants. Excessive use of nitrate fertilizers inhibits the formation of normal plant proteins and stimulates an over-abundance of unused amino acids that attracts insects.¹⁰ Since pests were created to eat diseased plants this introduces the ideal environment for increased infestation because of increased insect food supply. The farmer's reaction is to apply more pesticides and fungicides to save his infested crop. This in turn inhibits or destroys even more vital microorganisms that are essential in converting minerals to plant nutrients. The pesticide laden products, lacking in organic trace elements and other nutritional factors, are nutritionally hollow products that end up on our table. They have no taste, and we tend to peel, boil and overcook what remains. Then we ask 'why am I sick'.

The Vitamin Connection

New breakthroughs are just beginning to emerge in the use of increased dosages of vitamins and minerals for treatment of some ailments. However, it is crucial to remember that vitamins cannot complete their function in the cell's metabolism without the presence of the appropriate and specific mineral co-factor and fulvic acid.

Fulvic Acid Promotes Cell Wall Permeability and Absorption

Humic and fulvic acids have a fascinating effect on living organisms. Fulvic acid chelates and binds scores of minerals into a bio-available form used by cells. These trace minerals serve as catalysts to vitamins within the cell.¹¹ Additionally, fulvic acid is one of the most efficient transporters of vitamins into the cell.

One of the strongest advantages of fulvic acid minerals is that absorption greatly exceeds traditional tablet supplements. As with any nutrient or supplement, the only way your body can benefit, is if it is absorbed. Fulvic acid makes elemental minerals and vitamins more absorbable by complexing

them into organic, ionic forms that are easily transported into and through membranes and cell walls. Once the nutrients meld into the fulvic acid complex, they become bioactive and bioavailable. Research has shown that fulvic acid improves enzymatic reactions in cells and produces maximum stimulation of enzyme development.¹²

Our Minerals become more active once they combine with Fulvic Acid

Consumption of plant derived mineral fulvic complexes by humans for many years has shown that they will not build up in the body tissues as do metallic minerals. The following observations and theories describe the reasons why: Cells have the ability to accept or reject minerals, including aluminium, lead, arsenic, mercury, etc., at their discretion when presented as organic fulvic acid complexes. It should be considered that these minerals may not necessarily be present to 'nourish' cells, but are needed to act as 'electrodes' in the fulvic electrolyte solution. In that capacity they are probably most essential for bio-reactions, electron transfer, catalytic reactions and transmutations. Fulvic acid carries complexed minerals in 'trace' amounts only, and should not be confused with metallic minerals. Fulvic acid has the ability to complex and remove toxic metals and other minerals from the system. Fulvic acid mineral solutions have been ingested by people for many years, yet have never been shown to cause toxic mineral build-up in humans. It is obvious that when metals, minerals and trace elements become complexed into fulvic acid, they take on an entirely new property of availability, unlike their original form. It is when fulvic acid is not present that one should seriously worry about toxic build up from any source. This could account for the health problems that are causing concern today in our 'fulvic starved' society

Humic extract known as Fulvic acid is very well-documented

Many reports on the beneficial use of Humic substances, especially fulvic acid, for human health and medicine have been published. These include reports documented in the Chinese Materia Medica pharmacological compendium, dating back to the 15th century Ming Dynasty. During that period, a very famous medical doctor, Li Shi Zhen, used 'Wujinsan', meaning 'golden medicine', containing Humic and fulvic acids as the active ingredient in the treatment of infectious ulcerous growth and female haemorrhage diseases. These studies showed Humic and fulvic acids to be efficient anti-inflammatory and blood coagulating agents.

Hospital eye clinic patients with ulcerous cornea infection had 94.2% success rate when treated with fulvic acid eye drops and injections. Yuan, Shenyuan; Fulvic Acid, 4 1988; in Application of Fulvic acid and its derivatives in the fields of agriculture and medicine; First Edition: June 1993

In China, prior to 1978, Humic and fulvic acids had been used in hospitals and among the general population for the treating of a wide range of diseases with success. Up to that point there was very little research conducted on the pharmacology of its therapeutic mechanism. Because of lack of clinical data, doubt and misconceptions remained as to therapeutic use.

Hospital patients treated for chronic ulcerative colitis had 92.6% success rate when treated with fulvic acid enema. Yuan, Shenyuan; Fulvic Acid, 4 1988; in Application of Fulvic acid and its derivatives in the fields of agriculture and medicine; First Edition: June 1993

Since that time, many medical schools and hospitals in China have engaged in extensive studies on the toxicology and pathological aspects of humic and fulvic acids and their clinical applications.

Hundreds of research papers have now been published nationally in China, and some have appeared in international journals and have been presented at various meetings outside of China.

Hospital patients with acute upper gastro-intestinal bleeding had 95.6% success rate when treated with fulvic acid oral medicine and injections. Yuan, Shenyuan; Fulvic Acid, 4 1988; in Application of Fulvic acid and its derivatives in the fields of agriculture and medicine; First Edition: June 1993

Pharmaceutical companies in Da Tong, Shanxi, in Gongxian, Henan and in Kunming, Yunnan are manufacturing humic acid medicines which are approved by the Chinese Drug Administration.

Because of their non-toxicity, the humic extract fulvic acid is approved for internal as well as external use.

Clinical medical studies using humic and fulvic acids were performed on thousands of hemorrhoid patients, which were so successful that the Chinese government had a special pharmaceutical preparation developed for treatment of this condition. Yuan, Shenyuan; Fulvic Acid, 4 1988; in Application of Fulvic acid and its derivatives in the fields of agriculture and medicine; First Edition: June 1993

Chinese doctors now use fulvic related medicines to reduce inflammation, increase circulation and control bleeding, to regulate the immune system and hormone systems, to heal digestive tract disorders, and as an anti-cancer and anti-tumour therapy.

Studies of patients with gastric and duodenal ulcers showed that 91.1% had condition improve when treated with fulvic acid. Treatment showed no side effects, substantially diminished pain, with few relapses, with 61.1% of patients being completely cured. Xinsheng Zhu, Fulvic Acid, 9 (1991)

Studies show that Humic, and especially fulvic acids do occur naturally in the human diet. Waters from streams and rivers running through forested land contain dissolved humic and fulvic acids. Humic and fulvic acids occur in living plants grown in organic humus containing soils, and humic and fulvic acids have been isolated from live plants. Humic and fulvic acids have been found in the gastrointestinal tract of humans and animals and are absorbed. They circulate with the blood and are metabolized in the liver.

In 1988, Dr. S. A. Visser reviewed the medicinal value of Humic substances in an article entitled: 'Effects of Humic substances on higher animals and man; the possible use of Humic compounds in medical treatments', which was presented at the International Humic Substance Society meeting in Sevilla, Spain. His findings showed that the medicinal applications of Humic and fulvic acids can be external as well as internal.

Hospital studies in China show that elderly patients, ages 60-90, when treated with fulvic acid, regained appetite, slept better, and became more energetic. Other hospital studies coming from India show that fulvic acids are considered to be a powerful anti-aging therapy that also able to help with symptoms of dementia. Erchuan Wang et al, Humic acid, 3 (1991)

Dr. Visser stated that external applications of Humic and fulvic acids are based on their use as:

- anti-inflammatory,
- analgesic (pain relieving),
- hyperaemic (blood flow increasing),
- anti-rheumatic,
- anti-microbial, anti-fungal, antiviral anti-cancer agents.

Humic and fulvic acids have also been used externally in the treatment of

- hematoma (localized accumulation of blood),
- phlebitis (inflammation of veins),
- desmorrhhexis (rupture of a ligament),
- myogelosis (hardening of a muscle),
- contusions,
- distortions, cervical (neck) complaints,
- lumbago (pain in the lower back),
- ischias (pelvic pain in the hip joint),
- arthrosis (non-inflammatory arthritis),
- polyarthritits (arthritis of multiple joints), osteoarthritis (arthrosis deformans), osteochondrosis (ossification of cartilage).

With respect to internal use, Humic and fulvic acids have been shown to be particularly useful in the prophylaxis (prevention), therapy and metaphylaxis (after-care) of a variety of stomach and intestinal troubles such as, hyper-acidity, diarrhoea, gastric ulcers, dysentery, gastroenteritis and colitis. They can also act as a detoxifying agent, and have been used against bacterial and viral infections. They have been found to be useful in the treatment of anaemia (deficiency of red blood cells, haemoglobin or total blood volume) and as a stimulator of the body's immune system and of detoxifying liver functions. By counteracting certain kinds of cancerous growth, Humic acids may also have a potential as an anticarcinogen.

Many of these effects can be attributed to the activity of Humic and fulvic acids by themselves, and are the result of their surface activity, chelating properties, power of absorption, their polyacidic nature, their polyphenolic structure, their interaction with other organic molecules including polysaccharides, proteins, enzymes and lipids, as well as of their redox properties and free radical content.

No unfavourable side effects have so far been noticed with the administration of Humic or fulvic acids.

Hospital patients with rheumatoid arthritis had 92% success rate when treated with humic extract baths.

Diabetes & Fulvic Acid

Scientists found that Fulvic Acids show significant success in preventing and combating free radical damage to pancreatic islet B cells, which is the widely accepted cause for diabetes mellitus. What they discovered was that the Fulvic Acid preparation significantly increases superoxide dismutase (SOD) activity.

Their clinical studies show that Fulvic Acids diminish the development and progression of diabetes, and assisted in the treatment. (Bhattacharya, S.K. Activity of Shilajit on alloxan-induced hyperglycaemia in rats. *Fitoterapia*, Volume LXVI, No 4, 1995, pg. 328.)

The economic burden of diabetes mellitus in the Western World is enormous. Any advances that can 'delay the onset or slow the progression of diabetes' are needed. Diabetes mellitus stems from dietary deficiency of protective Humic substances, especially Fulvic Acids. Most medical doctors and diabetes associations do not know that scientists in less conspicuous parts of the world are making significant inroads into the treatment and prevention of diabetes mellitus with Fulvic Acid Humic extracts and herbs.

Due to the historical and recent expanding success of the diabetes treatments in the Himalayan region, medical researchers have taken a more serious interest in determining if the claims have scientific merit. Dr. Salil K. Bhattacharya and scientists from the Neuropharmacology Laboratory, Department of Pharmacology, Institute of Medical Sciences, at Banaras Hindu University in India, undertook extensive clinical studies on the subject.

What they proved was that it was the Fulvic Acid fraction and other closely associated Humic compounds, which were responsible for the anti-diabetic activity and long reputed historical success of that preparation. Dr. Bhattacharya recognized that the Fulvic Acids showed significant success in preventing and combating free radical damage to pancreatic islet B cells, which is the widely accepted cause for diabetes mellitus. Clinical studies showed that Fulvic Acids diminished the development and progression of Diabetes, and assisted in the treatment.

Studies going on in other countries confirm the work of Dr. Bhattacharya regarding Fulvic Acid SOD activity and effectiveness of diabetes. Studies in China take the research even further. Extensive human clinical studies carried out in various medical schools and hospitals in China have shown significant success in treatment of diabetes patients. Studies show those patients become more energetic.

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11. PHYTOPLANKTON & SUPEROXIDE DISMUTASE (SOD)

A team of European doctors, microbiologists and botanists spent many years and millions of dollars researching 40,000 species of marine phytoplankton in the ocean to determine the best species in each category to use for bio-fuel, aqua culture, exotic fish food and ultimately human consumption. Only four species of Marine Phytoplankton were found to be beneficial for human consumption and based on nutritional profiles, one species was super beneficial and was the single species chosen for production called the **Nannochloropsis gaditana** strain.

The name phytoplankton comes from the two Greek words; phyton, which means plant, and plankton, which means drifter or wanderer. Marine phytoplankton contains 400 times more energy than any other living organic matter and thus it is a very potent and a complete superfood for our bodies. It gives the body everything that it requires to develop and grow healthy new cells. It also provides vital essential neuro-chemicals like serotonin and dopamine for the brain. You may have heard of the benefits of omega-3-6-&9 fatty acids, and how important they are to the body. Phytoplankton is the very best way to get these into the body as they are far more easily absorbed than any fish-oil based supplements and can actually cross the bloodbrain barrier.

With the smallest nano-particulate size of all micro algae's, it delivers vital energy at the DNA/Mitochondria level and also crosses the blood/brain barrier.

Ragnar L. Olsen, a senior seafood researcher at the Arctic University of Norway in Tromso, says the omega-3 fatty acids are produced by phytoplankton in the ocean.

EPA and DHA are found in large amounts in fish and that's the main reason for the recommendation to eat seafood.

Fish oils are not easily digested by everyone, but that is not the only reason why phytoplankton is far superior to fish oils.

Two key nutrients (EPA and DHA) only achieve optimum levels of bio-availability for the human body when they are present in the phospholipid portion of the fats (lipid is a fat).

Phospholipids are needed to transport the fats into your system, and then directly into your brain.

The EPA and DHA in phospholipids (phytoplankton) are much better absorbed than the EPA and DHA in fish oils because they can cross the blood/brain barrier much more easily and effectively.

This barrier (phospholipids) is designed to protect the brain from most foreign substances, but it allows the transportation of these essential fats from phytoplankton to reach the brain, where they are most needed.

Another point of note is that when other marine life eat phytoplankton, or they eat creatures that consume phytoplankton, they use up all of the valuable phospholipids, just as humans do, in order to help transport the EPA and DHA to the cells of their own bodies. Therefore, ordinary fish oils lack this vital phospholipid complex. Also, almost all fish oils are refined, distilled, denatured and contain omega 3 fatty acids in a much less bio-available form than phytoplankton, namely triglycerides which are a completely different kettle of fish.

One quarter of all vegetation on Planet Earth (both land and sea) consists of Marine Phytoplankton. In the wild, Phytoplankton is invisible to the naked eye however, under certain conditions, this micro-algae can actually be seen from a space satellite.

According to NASA, Phytoplankton produces between 50% and 90% of all the oxygen in the air that we breathe, depending on the seasons. It also absorbs most of the Carbon Dioxide in the atmosphere, helping to maintain a balanced ecosystem which is essential for all life and a healthy planet. There are billions of tons of carbon dioxide residing on the sea bed which have been transported there by Phytoplankton when it eventually sinks down to the bottom of the ocean. More than 99% of all creatures that live in the Ocean depend, either directly or indirectly, on this phytoplankton for their survival.

Unlike any other food, Phytoplankton is being hailed as the new 'super food' as it is 100% nutritionally useful and bio-available to the body; when you eat it, nothing whatsoever gets wasted. Unlike most normal foods like fruits, vegetables, nuts, grains, meat and fish, as they actually contain less than a 50% nutritional value that is useful to the body. Because of this, during the digestive process, humans produce a significant quantity of waste by-products from consuming these conventional foods. These waste by-products produce toxicity and stress in the body, particularly if the gut, liver and other organs are not functioning correctly. Over time, this toxic stress overload can lead to illness and disease, hence the record levels of drugs being prescribed nowadays.

Phytonutrients exhibit promising effects in human physiology. They are:

- Omega-3 and Omega-6 fatty acids (for brain function and mental clarity)
- Essential amino acids (muscle growth and maintenance)
- Vitamins A, B1, B3, B5, B6, B12 (eyesight, nerve function and repair)
- Selenium (antioxidant enzyme function)
- Molybdenum (enzyme function)
- Chlorophyll (digestion regulator)
- Vital trace minerals that are essential to the production of brain neuro- Chemicals such as dopamine and serotonin, people who have struggled with chronic depression often report an alleviation of their condition after taking this supplement. Superoxide dismutase (free radical scavenger and anti-oxidant)

Chlorophyll

Haemoglobin and chlorophyll have similar structures. The main difference is that the porphyrin ring of haemoglobin is built around iron (Fe), whereas the porphyrin ring of chlorophyll is built around magnesium, (Mg). It is interesting that humans inhale oxygen and expel carbon dioxide and plants do the opposite.

Our survival seems uniquely dependent upon one another. It isn't surprising to think that the consumption of chlorophyll would benefit our own bodies.

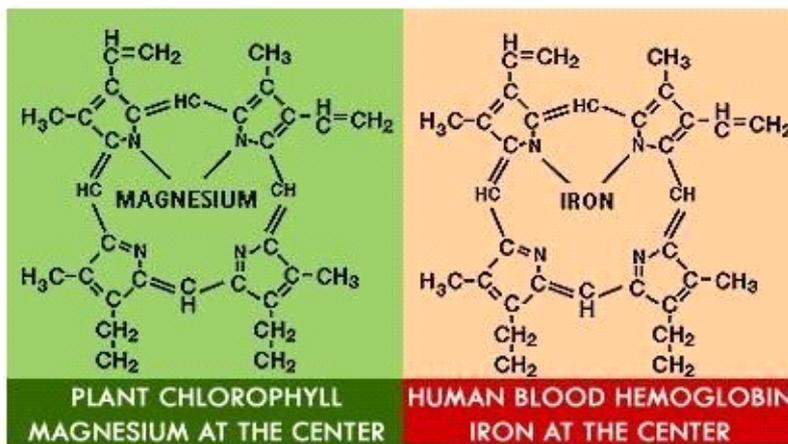
Chlorophyll is necessary for plant photosynthesis. One of chlorophyll's main functions is to absorb light and transfer that energy to a specific chlorophyll pair.

That is why plants are considered primary producers of energy. They are able to absorb the sun's energy directly. I am not sure if the similar molecular structure of haemoglobin is what makes chlorophyll so beneficial to humans. However, the similarities between them are impressive.

Haemoglobin is composed of four elements- carbon, hydrogen, oxygen and nitrogen. All four are organized around iron. Chlorophyll is composed of the same elements, which are organized around magnesium. I do believe that the direct source of energy from the sun and the rich vitamins and minerals that chlorophyll contains make it valuable for human consumption. Chlorophyll's similarity to haemoglobin probably makes it easy for the body to use. Scientists have found chlorophyll to have anti-oxidant, anti-inflammatory and wound healing potential.

Many benefits have been found including:

- The growth and repair of tissue.
- Increased distribution of oxygen throughout the body.
- Improving oxygen supply to red blood cells.
- Deodorizing bad breath, urine, faecal waste and body odour. -Helping the body reduce toxins.



Superoxide dismutase (SOD)

There is a substance our body's produce internally, that has been recognized to have direct correlation with the age the creature, animal or human die.

SOD's is engineered to neutralize your body's most common free radical, called superoxide. That's why SOD is called 'superoxide' DISMUTASE - because it activates a reaction known as dismutation, which converts harmful superoxide to hydrogen peroxide, which the body then converts to harmless oxygen and water.

SOD is found in both the dermis and the epidermis, and is key to the production of healthy fibroblasts (skin-building cells).

SOD provides powerful protection against oxidative stress.

The enzymes superoxide dismutase (SOD) and catalase — are the body's primary defence against free radical assault, offering up to thousands of times more protection against certain dangerous free radicals than dietary antioxidants.

SOD primary function in cells is to convert free radical super-oxide into hydrogen peroxide it is the most powerful and dangerous free radical in the body because it requires 3 electrons to rebalance itself.

That's why SOD is referred to as the most powerful antioxidant in your body.

In fact, SOD is said to be 3,500 times more powerful than vitamin C

Simply said the more SOD in our body, the longer we live. Research proved that animal species, who produced higher levels of a particular enzyme, lived longer than those with lower levels. Rodents, like mice — have the lowest levels among mammals, and that levels are highest among longer living mammals.

But levels in humans vary person to person by up to 50%. This could explain why some people live longer. So the longest living creature do contains the highest levels of SOD

Where else do we find SOD

It is found in barley grass, broccoli, Brussels sprouts, cabbage, wheatgrass, and most green plants. As such, they are an important antioxidant defence in nearly all cells exposed to oxygen, like skin cells' in the sun. SOD overpowers the damaging reactions of superoxide, and protect the cell from superoxide, the most common free radical in the body.

SOD is used in cosmetics and personal care products as an anti-aging ingredient and antioxidant because of its ability to reduce free radical damage in the skin, therefore preventing wrinkles, fine lines, age spots, help with wound healing, soften scar tissue, protect against UV rays, and reduce other signs of aging.

SOD has many benefits

Superoxide Dismutase has also been used to treat arthritis, prostate problems, corneal ulcers, burn injuries, inflammatory diseases, inflammatory bowel disease, and long-term damage from exposure to smoke and radiation, and to prevent side effects of cancer drugs. Vitamin C and copper are necessary to make this natural antioxidant.

Research conducted in the early 1980s by Richard Cutler at the Gerontology Research Centre at the National Institutes of Health, he found that mammals that produced higher tissue and serum levels of SOD lived longer than those with lower SOD levels. Cutler's research demonstrated that mice and rodents have the lowest SOD levels among mammals, and that SOD levels are highest among more highly evolved mammals, with humans displaying the highest relative SOD levels. Humans produce an average of 90 mcg/ml of SOD and live an average of nearly 80 years. Our closest primate relatives, chimpanzees, produce 40 mcg/ml of SOD and live an average of only 40 years. Fruit flies that have been bred to produce twice as much SOD as normal live twice as long as ordinary fruit flies. Cutler's crossspecies investigations strongly suggest that SOD is a primary determinant of longevity in mammals, and that increased SOD production played a key role in the higher order of mammals' evolution from shorter to longer life spans

The Galapagos Tortoise can live as old as 180 years. (...And it is said to contain the highest metabolic levels of SOD.)

Superoxide Dismutase helps the body use zinc, copper, and manganese. There are two types of SOD:

- Copper/zinc (Cu/Zn)
- SOD Manganese (Mn) SOD.

Each type of SOD plays a different role in keeping cells healthy. Cu/Zn SOD protects the cells' cytoplasm, and Mn SOD protects their mitochondria from free radical damage. Three forms of SOD are found in humans.

- SOD1 is located in the cytoplasm,
- SOD2 in the mitochondria
- SOD3 is outside of the cell. It plays an important role in maintaining vascular tone, lung function, and the metabolism of NO, and in the pathology of such diseases as atherosclerosis, diabetes, and arthritis.

SOD1 and SOD3 contain copper and zinc, while SOD2 has manganese.

This is extremely important considering oxidative stress is said to be the number 1 factor to control our health and longevity. Daily our bodies are targeted by everything from, chemicals, carcinogens,

pesticides, herbicides, genetically-modified organisms, heavy metals, electromagnetic fields and radiation... and the list goes on.

Avoiding them is impossible. That's why SOD is so critical. It's the body's ammunition that works to neutralize these toxic culprits that spawn free radicals and result in harmful oxidative stress.

However, there are two large challenges in maintaining healthy levels of SOD.

- One challenge is our SOD levels decline rapidly with age. If it declines, we are more prone to inflammation. Aging is a life-sabotaging disease.
- Secondly, SOD gets destroyed in stomach acid.

Thankfully today we have the Phytoplankton who contains highest levels of SOD.

Marine phytoplankton is a micro-algae, single-celled organism feeding the whales- known to live up to 200 years of age. It feeds 99% of life in our oceans and is responsible for producing up to 90% of all our Earth's oxygen.

The right type of marine phytoplankton (*Nannochloropsis Gaditana*) has a cell wall that is instantly digestible. That means it is absorbable and bioavailable at a cellular level. It's 5 times smaller than red blood cells - so all the essential amino and fatty acids (nano-sized) are able to pass through the blood-brain barrier and nourish your brain directly.

Because of this, this one of a kind marine phytoplankton is sought after by the people, as it is nature's number 1 resource for SOD, but it's also the food that powers the planet.

Marine phytoplankton is potentially hundreds of times more bioavailable than any other algae (or any other food source) on Earth, and is packed with more nutritive power than all 'superfoods' combined.

And again, because marine phytoplankton is a 'uni-cellular' organism — like bacteria, it exists in extremely small nano-sized particles. Our bodies require small particles to be readily absorbed into the bloodstream. What's more is, nano particles are small enough to be absorbed sublingually — before they even need enter your stomach.

Superoxide Dismutase benefits the following conditions:

- Cancer – Superoxide Dismutase helps prevent the malignant and tumorous growth.
- Scavenger of free Radicals – This antioxidant helps fight against the oxidative damage of free radicals. Thus, it reduces wrinkles and scars.
- Arthritis – SOD also prevent joints pain in arthritis and gout.
- Prostate – It also offers treatment of prostate problems.
- Lou Gehrig's disease – SOD helps cure Lou Gehrig's disease.
- Neurological Disorders – SOD prevents various neurological disorders.
- Muscle Fatigue – This antioxidant also cures muscle soreness and fatigue caused by extreme physical activities.
- Chemotherapy Effects – Superoxide Dismutase also provides relief from effects of chemotherapy treatment.
- Superoxide Dismutase helps the body to use copper, zinc and manganese properly.

Daily recommended dosage

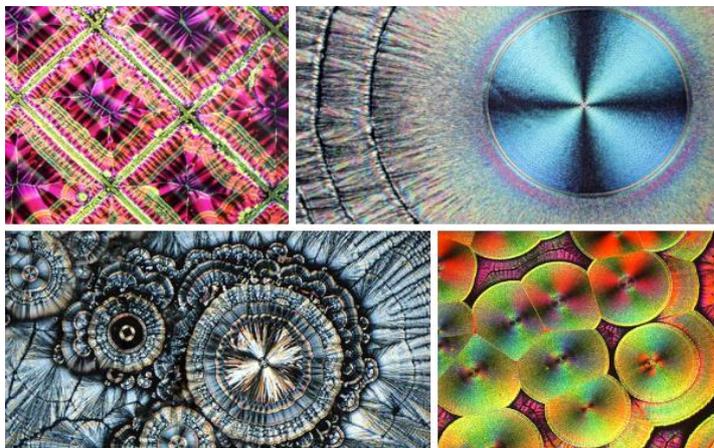
Recommended serving size varies according to individual requirements but 4 grams a day ensures 240 mg. of EPA daily. The recommended daily dosage is 220 mg per day. So for £1.00 you will have your daily fix and 50% of the substance is proteins, including the most essential minerals, vitamins, pigments and don't forget the SOD. I will take frequent small sublingual doses to prevent the SDO to be tarnished by the stomach acids. It is important to understand that phytoplankton is a completely

natural whole food and not a formulated health supplement. However, the nutrition contained in it is very highly concentrated compared to most other human foods. This means that only a relatively small amount is required to achieve its extraordinary health benefits.

Recommended serving size varies according to individual requirements but it starts being effective from 500mg to 1,000mg per day.

Alternatively it does blend well with fresh fruit or vegetables to make a nutritious phytoplankton smoothie. Marine Phytoplankton is a single-celled aquatic organism, or microalgae and, unlike many people believe, it is not a plant, seaweed, fungus or herb.

12. VITAMIN C – IT COLOURS YOUR LIFE



They are pictures of actual Vitamin C

Vitamin C so much a part of our everyday lives that we don't often think about it. Unless of course we know we're about to get a cold and force a handful of chunky orange flavoured tablets down our throats to stave off the symptoms. But have you ever wondered what vitamin C, or L-ascorbic acid, looks under the microscope?

The above images were taken by Spike Walker, an award-winning

British photomicrographer and retired school teacher who uses a Zeiss Ultraphot III microscope with built-in camera to reveal the strange and fantastic structures that pictures this scurvy fighting substance. Vitamin C is a colourless white powder, but if you dissolve it in water and crystallise it, under a polarising light microscope the colours and forms that you see are spectacular. Vitamin C just comes alive; the colours, the patterns of crystal formation are wonderful. Maitland produced a video about how he does it <http://mail.sciencealert.com.au/features/20140607-25827-2.html>

Today, nobody doubts that vitamin B1 can prevent beriberi or that vitamin C prevents scurvy. But scientific opinion about the use of vitamin supplements by millions of seemingly healthy people has never been more divided. Researchers at Johns Hopkins University in Baltimore, Maryland, and other institutions proclaimed with certainty that the public should 'stop wasting money' on vitamin supplements. They argued that research has found no benefits, in part because most people in industrialized nations are well-nourished. Many other researchers argued that vitamin deficiencies are, in fact, widespread and that supplements can help to close nutritional gaps.

Vitamin C was one of the earliest supplement crazes, championed by Nobel Prize-winning physicist Linus Pauling in the early 1970s as a cure for ailments ranging from cancer to the common cold.

However, by the '90s, the nutrient fell out of favour, and Pauling was accused of quackery by some mainstream doctors. By the time Pauling died in 1994 at age 93, vitamin C use was in decline. Recent science is showing that the great scientist may have been right all along.

Here are new findings about the venerable Vitamin C:

- **Fights superbugs.** Scientists recently discovered that vitamin C kills antibiotic-resistant tuberculosis germs, and many other nasty superbugs. Doctors lost interest in vitamin C because they wanted to prescribe antibiotics to everyone. Now that the dangers of antibiotic overuse are becoming known, there should be more research on vitamin C to fight infection. Before antibiotics became popular, vitamin C was used to cure diseases like polio and pertussis (whooping cough), so there is no reason why it wouldn't treat those diseases today, as well as the newer diseases.
- **Cuts the risk of colds in half.** A review of five randomized trials on people undergoing heavy short term physical stress (such as long-distance runners and soldiers in training) found that taking vitamin C cut the number of expected common colds in half.
- **Reduces shortness of breath.** The vitamin was found to help people who become short of breath or coughed during exercise. Findings in the *British Medical Journal* (BMJ) prompted the lead scientist in the study to recommend vitamin C as an inexpensive and readily available supplement for people with lung issues or who have problems exercising because of breathing problems.
- **Lowers cholesterol.** A series of studies, including one that analysed 13 randomized, placebo control studies (the so-called 'gold standard' of medical research), found that taking vitamin C regularly lowers LDL-cholesterol (the so-called 'bad' cholesterol) as well as triglycerides, which are now considered in some cases even more deadly than LDL-cholesterol.
- **It protects the collagen lining of your arteries.** This makes sense. Chauncey Crandall, M.D., who says it is an excellent weapon against heart disease. Lots of people already take vitamin C to prevent colds, but it does more than that, it also helps protect the heart. According to Dr.

Crandall, vitamin C aids the heart in three ways:

- First, it helps reduce concentrations of C-reactive protein in the blood. The body produces C Reactive Protein during inflammation, which is increasingly being seen as a precursor for heart disease, diabetes, and Alzheimer's disease.
- Second, vitamin C is a powerful antioxidant, which means it helps the body's cells reduce the oxidation that occurs with metabolism. Oxidation creates free radicals, which can damage the heart's coronary arteries, setting the stage for atherosclerosis, the disease process that causes coronary heart disease.
- Thirdly, vitamin C improves the overall functioning of the heart, in addition to its cholesterol lowering power

Finally it helps with the NASTY C's

- Direct cytotoxic (cell killing mediated by toxicity) effect on human cancer cells. ¹⁻⁴
- Induces apoptosis (cell death) in catalase-deficient cancer cells while sparing noncancerous (healthy, non-catalase deficient) cells from oxidative damage. ⁵⁻⁸
- Concentrates in cancerous cells due to the increased number of glucose receptors expressed by malignant cells (vitamin C has been shown to accumulate up to five times the concentration than in normal cells), selectively inducing apoptosis of cancer cells ⁹⁻¹¹

- Similar to chemotherapy agents, vitamin C generates significant hydrogen peroxide (H²O²) which destroys cancer cells. ¹²⁻¹⁴
- Promotes healthy mitochondria function. ¹⁵
- Reduces oxidative damage to the tumour suppressor gene caused by chemo and radiation. ¹⁶⁻¹⁷
- Stimulates the immune system to increase production of agents such as interferon and natural killer (NK) cells that engage in the cancer-killing process as well as prevent the growth and spread of the tumour. ¹⁸⁻¹⁹
- Decreases the production of inflammatory cytokines such as prostaglandin E2 (PGE2), C reactive protein (CRP), TNF-alpha, IL-8 and others, thereby reducing the inflammatory response that is responsible for growth, spread and recurrence of the disease (inflammation and elevated CRP are associated with poor prognosis and decreased survival in many types of cancer) ²¹⁻²³
- Exerts direct and indirect anti-angiogenic effects on tumour (inhibits formation of blood vessels by the tumour used to support its growth, spread and invasion) ²⁴
- Protects higher oxygenated, non-cancerous tissues while simultaneously acting as a selective pro-drug in cancer tissue.

Dosages

- Vitamin C can be used to treat arthritis, asthma, allergies, constipation, infections, thyroid disease, sub-clinical scurvy, constipation, and other ailment. We recommends 3,000 to 5,000 milligrams of vitamin C daily for these diseases. We can add Sodium Bicarbonate to neutralize the acid. The ratio is 1 teaspoon Vitamin C to ½ teaspoon Sod. Bicarbonate
- Vitamin C also has potential in treating cancer, and we recommends 10,000 to 20,000 mg for cancer patients. Megadoses of vitamin C generally have no side effects other than diarrhoea for some people, which goes away when the dose is decreased. It can easily be replaced by liposomal Vitamin C.
- Add 10 – 20 drops of DMSO to your Vitamin C – It will penetrate your cells more easily. It's cheaper than liposomal Vitamin C.

Intravenous Vitamin C

The research of vitamin C's properties as an anti-viral, anti-toxin, antibacterial, anti-cancer agent goes back to the 1930s and 1940s. In 1947 Dr. Frederick Klenner presented 60 cases of polio, caused by a virus, cured with no side effects using intravenous vitamin C injections. ²⁵ He also cured mumps, measles, chicken pox, viral pneumonia, and other afflictions with vitamin C, finding that the intravenous method, or intramuscular for very small children, was the most effective way to treat these viral diseases.

Linus Pauling championed the use of vitamin C as the cure for the common cold, but went on to show that intravenous vitamin C was a beneficial adjuvant therapy for cancer. ²⁶ He also did work showing that ascorbic acid prevented HIV virus from replicating in newly infected and chronically infected CD4+ cells in vitro. ²⁷

Vitamin C help kill 'untreatable' cancer cells, disguised as a Trojan horse.

It may sound incredible that a deadly disease like cancer can be treated by something as simple (and safe) as vitamin C. For decades, naysayers denied what Nobel Prize-winning chemist Pauling and others outside the conventional medical establishment had discovered: Vitamin C can be effective against many of the serious illnesses that have plagued mankind – including cancer, the ugly C. Findings from a new study offer further evidence of the cancer-fighting properties of vitamin C. This time, research shows the powerful antioxidant may be effective in combating a class of cancerous tumours – including colorectal [cancer cells](#) – that can be particularly difficult to treat by conventional means.

Findings of the study, ³³ which showed the vitamin was effective in curbing cancer-causing mutations in mice, were published recently in the journal Science. [Vitamin C](#) is already known for its effectiveness in detoxifying the body and boosting the immune system. Notably championed by

globally respected scientist Dr. Linus Pauling and other advocates as a treatment for cancer and heart disease, these latest findings on vitamin C may open the door for its use as treatment for some of the most challenging cancers.

The most recently published study using cell culture and mice shows that vitamin C was effective at killing tumour cells that carry a common cancer-causing mutation. Using roughly the equivalent of the amount of vitamin C found in 300 oranges, the scientists were able to document impaired growth of KRAS-mutant and BRAF-mutant colorectal tumours in cultured cells as well as in mice. In oxygen-rich environments, like arteries, a portion of vitamin C is oxidized and transformed into a new compound known as dehydroascorbic acid or DHA. This new compound is able to act as a Trojan horse and pass through the cancer cell membrane, thanks to a protein glucose transmitter. Once inside, the cancer cell's natural antioxidants attempt to convert DHA back to ascorbic acid, but are unable to keep up and instead become depleted, with the cancer cell then dying of oxidative stress. Because certain colorectal cancer cells produce greater amounts of reactive oxygen than other cell types, they need more antioxidants to survive. This makes them more susceptible to the action of DHA than normal cells or even other types of cancer cells. It may be time to seriously examine vitamin C as a remedy for many terminal diseases. Allan Smith is a shining example of what natural therapies can do to the human body.²⁸

Ebola virus and Vitamin C

One important note about the Ebola viral infection is that it induces a very acute case of scurvy, which leads to internal and external bleeding. When all of the vitamin C and antioxidants has been used up in the body, there are none left to maintain the integrity of the blood vessels. This mechanism, coupled with the severe selenium deficiency, causes clots to form in capillaries, raises the local blood pressure and puts excessive strain on the weakened vessel walls. So, massive bleeding ensues. Providing vitamin C and other antioxidants is a very important aspect of overcoming an Ebola infection.

Ebola is fatal as it learned how to completely remove of all the vitamin C from your body. No one actually knows what mechanism is involved in doing this, other than a malfunction. All the researchers know is that vitamin C drops to zero and all the symptoms of Ebola are consistent with a complete loss of vitamin C.

A doctor who chose to remain anonymous and has worked with Ebola victims has discovered this. Since its discovery in 1976 the African haemorrhagic viral infection known as Ebola has struck terror into West Africans and anyone else in its path. With a mortality rate ranging from 50 to more than 90 percent, it is a virus you never want to meet. There is no available vaccine for this virus, no cure, and no medical treatment that has proven to be effective against Ebola virus, which can wipe out entire villages, and could frighten entire cities to a standstill. Isolation of victims and avoidance of contact is the only proven way to stop the Ebola virus.

The Ebola virus is spread the same way as other common viruses. Airborne droplets of bodily fluids are the most common transmission, apart from direct contact. What is different about Ebola virus is that it is highly contagious. Only one to ten virus particles are needed to cause an infection in a person. Common preventive strategy calls for avoiding direct contact and airborne droplets of body fluids. Ebola virus, during an acute phase of infection, is present in the blood, saliva, stool, semen, breast milk, and any bodily fluid containing blood due to hemorrhaging.³¹ Casual contact with a person's skin is not likely to pass an infection. Ebola virus can be spread like the HIV virus, except that the Ebola viral infection can rapidly kill you.

So, please understand how crucial quarantine and isolation is to prevent the spread of the Ebola virus, or of any other virus. However, when quarantine and isolation have already failed, there are natural products that can help your immune system from being depleted when you face a lethal Ebola viral attack.

There are four supplements that are excellent for immune system support when dealing with Ebola virus, similar viruses, or even the common cold virus. They are selenium, nascent iodine, vitamin C, and Sulphur.

These substances provide excellent support for our immune system to conquer any infection and it needs adequate support. A strong infection requires a strong immune system. We often vastly underestimate the depletion of the immune system caused by strong infections, so we also underestimate the amount of support that is required to mount a sufficient immune response. The very first symptoms of Ebola are exactly the same as scurvy, which is caused by inadequate vitamin C. Though scurvy is seldom fatal as a primary condition, but in the Ebola patients, zero vitamin C caused blood vessels to become very weak and they start to lose blood, and platelets become ineffective and unable to trigger clots. So death by Ebola is caused by massive internal bleeding and loss of blood, which can be stopped simply by taking enormous doses of vitamin C until the immune system succeeds in killing off the virus.

Ebola is probably the best known of a class of viruses known as haemorrhagic fever viruses. In fact, Ebola virus was initially recognized in 1976. There are many other less known but related viral syndromes include yellow fever, dengue haemorrhagic fever and many more. The Ebola virus infection, also known as African haemorrhagic fever, has the distinction of having the highest case-fatality rate of the viral infections noted above, ranging from 53% to 88%.

These viral haemorrhagic fever syndromes share certain clinical features. The Cecil Textbook of Medicine notes that these diseases are characterized by capillary fragility, which translates to easy bleeding, that can frequently lead to severe shock and death. These diseases also tend to consume and/or destroy the platelets, which play an integral role in blood clotting. The clinical presentation of these viral diseases is similar to scurvy, which is also characterized by capillary fragility and a tendency to bleed easily. Characteristic skin lesions develop, which are actually multiple tiny areas of bleeding into the skin that surround the hair follicles. Soon all vitamin C stores will be completely exhausted. Ebola virus and the other viral haemorrhagic fevers are much more likely to cause haemorrhaging before any other fatal infection has a chance to become established. This is because the virus so rapidly and totally metabolizes and consumes all available vitamin C in the bodies of the victims that an advanced stage of scurvy is literally produced after only a few days of the disease. To date, no viral infection has been demonstrated to be resistant to the proper dosing of vitamin C as classically demonstrated by Klenner. However, not all viruses have been treated with Klenner-sized vitamin C doses, or at least the results have not been published. Ebola viral infection and the other acute viral haemorrhagic fevers appear to be diseases that fall into this category. Because of the seemingly exceptional ability of these viruses to rapidly deplete vitamin C stores, even larger doses of vitamin C would likely be required in order to effectively reverse and eventually cure infections caused by these viruses.

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THE OTHER SPECIALLY DESIGNED FOODS/GOODS TO MAKE YOU ILL

1. WHEAT

It Can Slowly Kill You

There are many reasons why wheat is so bad for your body and the warm bread rolls does more harm than good.

The main reason is:

- Wheat disturbs your blood sugar
- It causes glycation of your cells
- Increases AGING
- Weight gain
- Causes Diabetes

To understand this, we need to study Glycation – the bonding of protein with glucose. Actually it speeds up the aging process in your body. Glycation causes the substance Advanced Glycation End

Products (AGEs). They are nasty little compounds called AGEs that speed up the aging process in your body including damage over time to your

- Organs
- Joints
- Wrinkled skin

What is one of the biggest factors that increase product of AGEs inside your body? Yes it is high blood sugar levels over time. It dramatically increase age-accelerating AGEs in your body.

This is why people with type 2 diabetics appear to be many times older than their class mates at school. This age-increasing effect is not just limited to diabetics.

But this age-increasing effect is not just limited to diabetics.

Wheat contains an unusual type of carbohydrate called Amylopectin-A. Which has been found in some tests to spike your blood sugar higher than even pure table sugar. Amylopectin-A contained from wheat also raises your blood sugar more than almost any other carbohydrate source on earth.

This is based on blood sugar response testing that is documented in studies.

This means that wheat-based foods such as:

- Bread
- Pasta
- Cereals
- Couscous
- Cakes and pastries
- Biscuits
- Doughnuts

They often cause much higher blood sugar levels than most other carbohydrate sources.

You can do your own blood personal blood sugar tests using a blood glucometer about 45 minutes, after eating 2 slices of wheat bread vs eating a bowl of oatmeal, with the equivalent grams of carbs. You will be surprised to find how high the wheat bread will spike you sugar compared to the oats meal.

The rule is the higher your average blood sugar levels are over time, the more AGEs are formed inside your body. Which makes you age faster. I discussed this problem with my article on Sulphur. Don't be lured into a trap. Remember High Cholesterol, High Sugar Levels, High Blood pressure values are the Troy Horses of the Pharmaceutical Empire. Every Decade the Pharmaceutical industry make the normal values lower in order to create new Patients and new Clients. They will never tell you to do the obvious – eat less bread.

Not only that, but the high blood sugar spikes caused by wheat also makes your body pump out more insulin which in turn make you more prone to gain more body fat.

These massive blood sugar spikes from eating wheat daily also cause damage over time to your blood sugar regulation system, harming your pancreas, causing insulin resistance and finally it will end with type 2 Diabetes. I think we have a strong case against eating so-called 'healthy' wheat.

Gluten and other gut-damaging compounds with anti-nutrients

The truth is that even if you are not officially 'gluten intolerant' or 'gluten sensitive', there are hundreds of published studies that indicate that gluten can cause inflammation in your digestive system, and even cause 'permeability' in your gut, which can lead to a health condition that's on the rise lately called Leaky Gut, as well as other digestive issues and autoimmune problems.

Scientists theorize that the reason gluten is causing these digestive system problems is due to the excessive hybridization of wheat over the last 50 years, which has created newly modified gluten molecules that are foreign to the human digestive system compared to the ancient wheat that humans ate for several thousands of years.

The antinutrients are naturally occurring compounds in the wheat plant, and it can cause disastrous effect if we eat too much of them. One of these antinutrients is called phytates, which blocks the

absorption in your body of certain minerals like zinc, iron, manganese, and calcium if you eat wheat too often.

Many people often ask me.. But what about the fibre in wheat? I thought that's why it's supposed to be healthy? Sorry, you can get ALL of the fibre you need from fruits, veggies, and nuts, without the digestive system damage and massive blood sugar issues that are caused by wheat.

Gluten is a protein found in wheat, rye and barley. When someone has an issue with gluten, eating the protein causes damage to their intestinal lining, making it hard for them to properly absorb vital nutrients from their food. This can wreak all kinds of havoc on a person's body in lots of different ways. Some people have an auto-immune reaction to gluten that is so bad that eating gluten can cause the body to attack itself. This life-threatening condition is called Celiac Disease.

Even for those who have non-Celiac gluten sensitivity, eating wheat can manifest in myriad painful ways, so most people are misdiagnosed for years with other disorders and given medications that only help them mask symptoms without ever solving the real problem. Many symptoms are often misdiagnosed as irritable bowel, ADD, depression, schizophrenia, etc..

There is no pharma profit motive for people to be diagnosed as wheat intolerant/sensitive/allergic as the only solution is to stop consumption of wheat gluten products. Stop eating wheat gluten, feel better and then go home.

According to Gluten Free Network, the negative symptoms may include:

- Severe or occasional diarrhoea, excessive wind and/or constipation
- Persistent or unexplained gastrointestinal symptoms, such as nausea and vomiting
- Recurrent stomach pain, cramping or bloating
- Any combination of iron, vitamin B12 or folic acid deficiency and anaemia
- Tiredness and/or headaches
- Sudden or unexpected weight loss (but not in all cases)
- Mouth ulcers
- Hair loss
- Skin rash (dermatitis herpetiformis)
- Tooth enamel problems
- Depression
- Infertility
- Liver abnormalities
- Repeated miscarriages
- Joint and/or bone pain
- Neurological (nerve) problems such as ataxia (poor muscle coordination) and neuropathy (numbness and tingling in the hands and feet)
- Amenorrhoea (lack of periods in women)

It's also easy to see how people with gluten issues get misdiagnosed with everything from depression and anxiety to irritable bowel syndrome and are likely just prescribed medicines that mask part of the symptoms, and all the while their eating habits are contributing to the slow destruction of their intestinal lining and their inability to absorb nutrients properly, thus ultimately making them sicker and sicker over time.

There is considerable evidence available for years that people with schizophrenia had their symptoms made worse by ingesting wheat gluten products, yet no move for dietary restrictions by the psychiatric community. Would it be easier if the patients consumed wheat and had more severe symptoms, thus requiring more pharma products to keep them calm? ¹

Doctors treating the CD noticed their patients were schizophrenic about 10X as often as the general population. That's a lot. In addition, epidemiological studies of Pacific Islanders and other populations showed a strong, dose-dependent relationship between grain intake and schizophrenia. The gluten-free populations had extremely rare occurrence of schizophrenia - just 2 in 65,000 versus about 1 in 100 as we have in the grain-eating Western Europe. When rural population Westernized

their diets (flour, sugar, and beer), schizophrenia became common. Removal of the toxins in wheat from the body can reduce inflammation in the brain and decrease the negative symptoms of depression, rage, anxiety and paranoia.

In nations that have developed dependence on wheat and corn, iron and zinc deficiencies are rampant, affecting over 2 billion people. Consumption of grains provides no net increase in iron or zinc, nor of any other nutrient, because they are inaccessible. The second most common cause of iron deficiency anaemia in the world (after blood loss): wheat consumption.

Thankfully we don't need to rely on our intuition, or even common sense to draw conclusions about the inherently unhealthy nature of wheat. A wide range of investigation has occurred over the past decade revealing the problem with:

The alcohol soluble protein component of wheat known as gliadin,
The sugar-binding protein known as lectin (Wheat Germ Agglutinin),
The exorphin known as gliadomorphin,
The excitotoxic potentials of high levels of aspartic
The glutamic acid found in wheat.
The anti-nutrients found in grains such as phytates, enzyme inhibitors, etc.

- Wheat causes damage to the intestines due to alcohol soluble protein component of wheat known as gliadin. Gliadin does not need to activate an autoimmune response, e.g. Celiac disease, in order to have a deleterious effect on intestinal tissue.
- Wheat causes intestinal permeability. Gliadin upregulates the production of a protein known as zonulin, which modulates intestinal permeability.
- Wheat has pharmacologically active properties. Gliadin can be broken down into various amino acid lengths or peptides. Gliadorphin is one of them and it is a 7 amino acid long peptide: Gliadorphin can pass through to the brain barrier through circumventricular organs and activate opioid receptors resulting in disrupted brain function.
- Wheat causes damage that is 'out of the intestine' affecting distant organs. Wheat contains a lectin known as Wheat Germ Agglutinin which is responsible for causing direct, non-immune mediated damage to our intestines, and subsequent to entry into the bloodstream, damage to distant organs in our body.
- Wheat induces molecular mimicry. Gliadorphin and gluten exorphins exhibit a form of molecular mimicry that affects the nervous system, but other wheat proteins effect different organ systems.
- Wheat contains high concentrations of excitotoxins. Excitotoxicity is a pathological process where glutamic and aspartic acid cause an over-activation of the nerve cell receptors (e.g. NMDA and AMPA receptor) leading to calcium induced nerve and brain injury. Of all cereal grasses commonly consumed wheat contains the highest levels of glutamic acid and aspartic acid. Glutamic acid is largely responsible for wheat's exceptional taste.

How do I know if I am sensitive to Gluten?

The best is to try the 'GLUTEN challenge' and it involves removing ALL wheat and gluten products from their diet for at least two weeks and recording any changes in mood, energy, digestion and other symptoms. There may be improvement of negative symptoms (depression, anxiety, tiredness, foggy thinking, etc.) after the first few down days of withdrawal from wheat products. If the negative symptoms return when wheat gluten is reintroduced then it follows that wheat gluten is the likely problem. The final test is to once again remove wheat and gluten products from their diet for another two weeks and monitor mood and symptoms.

Those with an allergy to wheat or other grains must avoid them. And the one percent of the population with celiac disease and the six percent with non-celiac gluten sensitivity must avoid all

gluten, a protein found in grains, including wheat, rye and barley. With a doctor's approval, most people with a gluten sensitivity can eat small amounts of uncontaminated oats; all other uncontaminated, gluten-free grains are typically allowed.

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2. CALCIUM DEPOSITS

Calcium is essential to health yet it holds a hidden danger causing arteriosclerosis. When I examine the X-rays of many elderly people, you will find more calcium in their arteries than their bones. Calcium is the most promoted nutrient by proponents of conventional, nutritional, and alternative medicine. This is a great and tragic mistake. They should have been promoting magnesium. We've all been trained to believe that Calcium is good for strong bones. In reality, it is a credible myth. In fact, it takes at least a dozen nutrients, including Calcium and Magnesium, to make a strong bone matrix, but then that amount of information starts getting too complex. What is important to understand is that Calcium and Magnesium are in an endless and dynamic dance within our bodies and our bones. These two key minerals are actually antagonists. And when these minerals get out of balance in our body, which does happen when acute and chronic stress depletes our bodies of Magnesium, a whole series of problems and chronic diseases unfold.

Calcium is added to everything these days, from pasteurized milk to baby formula, orange juice, and boxed foods like breakfast cereals. And certainly, your body does need calcium. In fact, calcium from whole foods may even extend your lifespan.

According to Dr. Carolyn Dean, MD, ND, magnesium expert and Medical Director of the non-profit Nutritional Magnesium Association (<http://www.nutritionalmagnesium.org>), approximately 40 to 50 years ago doctors began prescribing calcium on a routine basis to many men and almost all women over the age of 40 to counter the effects of bone loss due to aging. The conventional wisdom was that bone loss is due to calcium deficiency. After 40 years, it has become clear that taking calcium alone does not stop or even slow bone loss and does not prevent osteoporosis. *Feskanich D; Willett WC; Colditz GA. Calcium, vitamin D, milk consumption, and hip fractures: a prospective study among postmenopausal women. Am J Clin Nutr 2003 Feb;77(2):504-11

The new wisdom now emerging is that magnesium is actually the key to the body's proper assimilation and use of calcium as well as vitamin D. Dr. Dean says, if we consume too much calcium without sufficient magnesium, the excess calcium is not utilized correctly and may actually become toxic, causing painful conditions such as some forms of arthritis, kidney stones, osteoporosis and calcification of the arteries leading to heart attack and cardiovascular disease. The effectiveness and benefits of calcium with respect to bone health and the prevention of osteoporosis are enormously impaired in the absence of adequate levels of magnesium in the body.

Many medical doctors, research scientists and nutritionists now believe magnesium supplementation is more important than calcium in order to maintain healthy bones as well as a healthy heart.

Magnesium keeps calcium dissolved in the blood. Without the proper balance of magnesium to calcium, about a 2:1 ratio, calcium ends up depositing in kidneys and can create kidney stones, in coronary arteries where it can lead to clogged arteries, and in joint cartilage, rather than in bones where we need it most. The more calcium taken without the balancing effect of magnesium, the more symptoms of magnesium deficiency and calcium excess you are liable to experience.

Our current diet is rich in calcium but insufficient in magnesium. Our ancient ancestors had a diet that was close to 1:1 whereas our present-day diets are more like 5:1 and up to 10:1. Having roughly ten times more calcium than magnesium is a serious problem. *<http://drsircus.com>

This elevated calcium to magnesium ratio is a major player in conditions such as mitral valve prolapse, migraines, attention deficit disorder, autism, fibromyalgia, anxiety, asthma and allergies. Wherever there is elevated calcium and insufficient magnesium inside of cells the effects are muscle contractions, spasms, twitches and even convulsions.

Unabsorbed calcium can lodge anywhere in our body. For instances;

- Calcium deposits in the joints are called arthritis;
- in the blood vessels it is hardening of the arteries;
- in the heart it is heart disease,
- and in the brain it is senility.

Calcification or calcium poisoning can manifest as heart disease, cancer, wrinkled skin, kidney stones, osteoporosis, dental problems, bone spurs, cataracts and many other health problems.

It is magnesium that actually controls bone density not calcium. Magnesium drives the calcium into the bones where low levels encourage its loss.

Anyone who wants to live longer should pay attention to the magnesium story and should immediately begin a strong and prolonged treatment with magnesium. While calcium affects muscle contractions, magnesium balances that effect and relaxes muscles.

- Calcium tightens the muscles;
- Magnesium relaxes the muscles.

With insufficient magnesium the **muscles** stay tense and through the years may cause a cramp in the muscle. This could happen when you have too much calcium or too little magnesium. Too much calcium causes the heart to go into a spasm and it can't relax. This is a heart attack. Get some magnesium into the body and the heart will slowly start returning to normal unless major damage has already been done. Add iodine and selenium and we have the makings of an ideal formula to support recovery and possibly even minor tissue regeneration.

As we will see in another chapter medical scientists are already creating heart patches made from sea weed and are seeing both blood and heart tissues growing and regenerating into the patches.

*Can Seaweed Mend a Broken Heart? Scientific America April 7, 2008 By [Cynthia Graber](#)

Seaweed just happens to be high in magnesium, iodine and selenium.

There are no pharmaceutical drugs on the market to reduce calcium deposits but magnesium chloride and sodium thiosulfate are useful in preventing and treating unwanted calcification. Together they offer the best way of combating the calcium time bomb. The average Western diet has far too little magnesium and it has serious consequences, including death, in many people. According to magnesium expert Dr. Mildred Seelig, 80 - 90% of the U.S. population is magnesium deficient.

Calcification consists of both calcium and phosphorous and they are the building blocks for healthy bones and teeth. But it also causes strokes and heart attacks.

Dr. H. Ray Evers writes, the power plant of human cell is called the **mitochondrion**. The mitochondrion is what generates energy for the cell to use. But the problem arises when the cell is low in magnesium, relative to calcium. ATP is the 'energy currency' of the cell, and it is magnesium dependent. This means it is obvious that the calcium pump at the cell membrane is also magnesium dependent. Without enough 'biologically available' magnesium, the cellular calcium pump slows down. Thus a vicious cycle is established. Low levels of magnesium inhibit the generation of energy, and the low levels of energy inhibit the calcium pump. The end result? The mitochondrion, the powerhouse of the cell and the entire body, becomes calcified. This is the beginning of aging. This means that every function of your body can be inhibited when the mitochondria calcify. Calcium is the brake. Magnesium is the accelerator. To be in optimal health, there must be a balance between the two. The higher the calcium level and the lower the magnesium level in the extra-cellular fluid, the harder it is for cells to pump the calcium out. Mitochondria produce the energy our cells and organs need. This is vitally important for the heart because heart muscle cells has a tremendous

appetite for energy. Mitochondria are also important for proper neurotransmission and are highly concentrated in cells of the brain and central nervous system. A healthy cell has high magnesium and low calcium levels. We may say that our biochemical age is determined by the ratio of magnesium to calcium within our cells. As we age, calcium deposits tend to accumulate in our soft tissues. Doctors call it "Extra-skeletal calcification." 99% of our Calcium needs to be locked away in our bones. This means that the calcium that is supposed to be deposited in your bones is being lodged in our soft tissues. They are easily noticed on X-ray's as calcified plaques on the arteries of the elderly people.

Up to 30% of the energy of cells is spend to pump calcium out of the cells. The flow of Calcium inside the cells are regulated. Magnesium has been called nature's '**calcium channel blocker**' because of its ability to prevent coronary artery spasm, arrhythmias, and to reduce blood pressure. Calcium enters the cells of the heart by way of calcium channels that are jealously guarded by magnesium.

Magnesium, at a concentration 10,000 times greater than that of calcium in the cells, allows only a certain amount of calcium to enter to create necessary electrical transmissions, and then immediately helps to eject the calcium once the work is done. Why? If calcium accumulates in the cell, it causes hyper-excitability and calcification and disrupts cell function leading to angina, high blood pressure, arrhythmia, asthma, headaches and even heart attacks. Magnesium is nature's calcium channel blocker," says Dr. Carolyn Dean, author of The Magnesium Miracle.

Dr. Garry Gordon wrote, If you have compromised cell membranes or low ATP production for any reason, then the cell has trouble maintaining the normal gradient. This is because the usual gradient is 10,000 times more calcium outside of cells than inside; when this is compromised you will have increased intracellular calcium, which seems to always happen at the time of death. Whenever intracellular calcium is elevated, you have a relative deficiency of magnesium, so whenever anyone is seriously ill, acute or chronic, part of your plan must be to restore magnesium, which is poorly absorbed through oral means."

99% of the calcium needs to be in the bone and if they are outside the bone structure, they cause havoc. High levels of calcium is a medical emergency, and low levels could irritate the nervous system and cause tetany.

These disorders are commonly caused by cancer or parathyroid disease but underneath the primary aetiology is a magnesium deficiency. Hypocalcemia is commonly attributed to cancer treatment. The symptoms are:

- Kidney stone formation and kidney complications. [\[1\]](#)
- Elevated calcium levels are also associated with arthritic/joint
- vascular degeneration,
- calcification of soft tissue,
- hypertension and stroke,
- gastrointestinal disturbances, mood and depressive disorders,
- chronic fatigue,
- General mineral imbalances including magnesium, zinc, iron and phosphorus.
- Cardiovascular calcification lesions can lead to the development of myocardial ischaemia, myocardial infarction, impaired myocardial function, congestive heart failure, cardiac valve insufficiency, and cardiac arrhythmias. There is a strong association between increased cardiac calcification and risk of death.
- High calcium levels interfere with Vitamin D and subsequently inhibit the vitamin's cancer protective effect unless extra amounts of Vitamin D are supplemented. [\[2\]](#)

Magnesium and calcium share a common route of absorption in the intestinal tract and appear to have a mutually suppressive effect on each other. If calcium intake (or dairy intake) is unusually high, calcium will be absorbed in preference to magnesium. Also, excessive doses of vitamin D and calcium supplements can cause renal magnesium loss. Sunlight is the only safe way to get vitamin D since the

body regulates how much is made. Take it by pill form and calcium homeostasis is overridden. The entire idea of toxic sunscreens and avoiding the sun's life giving effects (natural vitamin D formation) is just one more mistake modern medicine is making.

The dangers of sun exposure have been greatly exaggerated by the same types of people who over exaggerate and lie about many things in medicine. Sun exposure is not the major reason people develop skin cancer. Researchers point out that increasing level of vitamin D3 could prevent many diseases that claim hundreds of thousands if not millions of people world each year. Vitamin D, the sunshine vitamin, is different from other vitamins in that it influences your entire body — receptors that respond to the vitamin have been found in almost every type of human cell, from the brain to our bones. Magnesium is essential for the normal function of the parathyroid gland and for vitamin D metabolism.

Coronary artery calcification is common, is severe and is significantly associated with ischemic cardiovascular disease in adult end-stage renal disease patients. ^{*} J Am Coll Cardiol, 2002; 39:695-701. J Am Coll Cardiol, 2002; 39:695-701 American College of Cardiology Foundation.

The amount of calcium in the coronary arteries reliably predicts heart attack risk and is measured by what is called ones calcium score. UCLA cardiologist, Dr. Matt Budoff, a long-time champion of the Coronary Calcium Scan, and author of the AHA paper says, 'The total amount of coronary calcium (Agatston score) predicts coronary disease events beyond standard risk factors.' The Coronary Calcium Score is a precise quantitative tool for measuring and tracking heart disease risk. It is more valuable and accurate than other traditional markers (such as total cholesterol which is practically worthless as a heart disease risk marker). The British Medical Journal recently published a large analysis based on the results of 5 clinical trials conducted in the U.S., Great Britain and New Zealand that involved more than 8,000 people. The analysis concluded that, "Calcium supplements ... increase the risk of cardiovascular events, especially myocardial infarction (heart attack) ... A reassessment of the role of calcium supplements in osteoporosis management is warranted." ^{*} BMJ. 2011;342:d2040. Epub 2011 Apr 19. PMID: 21505219

Many believe that any arterial plaque is simply a buildup of cholesterol. But in reality, more than 90% of these fatty plaques are calcified. Cholesterol is soft and waxy and does not impair the elasticity of your arteries. But calcium deposits are like concrete, hardening your arteries and impairing their ability to expand. It is calcium, not cholesterol, which induces arterial stiffness.

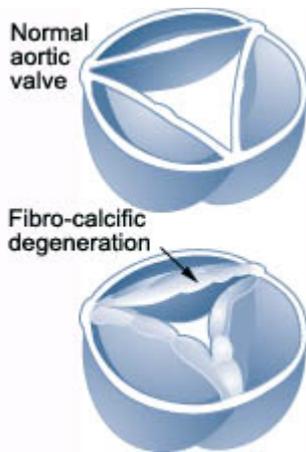
Magnesium rejuvenates us and it prevents the calcification of our organs and tissues that is characteristic of the old-age related degeneration of our body. When cells are powerless to keep the excess calcium from entering the cells, then cellular function degenerates. Calcified arteries, calcium in soft tissues and high levels of calcium within cells are all signs of aging. At age 80 the average calcium content in the aorta is 140 times greater than the levels of aortic calcification noted at age 40.

About 20% of the plaque volume causing myocardial infarction, contains calcium which is measurable on CAT scan, providing a marker for the total plaque burden. Having a build-up of calcium plaque in the arteries means increased risk of heart attacks and death from heart disease according to findings from the Multi-Ethnic Study of Atherosclerosis (MESA) funded by the National Heart, Lung, and Blood Institute. Researchers at the University of Virginia Health System suggest that composition of plaque deposits in the carotid arteries indicate a patient's risk of having a stroke. The ratio of calcium to magnesium in milk is about 9 to 1. Calcium is the physiological partner of magnesium and should be present in a 2:1 or even 1:1 ratio.

Drinking milk does not prevent bone loss. Bone loss is accelerated by ingesting too much protein, and milk has been called "liquid meat." In order to absorb calcium, the body needs magnesium in the right ratio. Countries with the highest rates of osteoporosis, such as the United States, England, and Sweden, consume the most milk. China and Japan, where people eat much less protein and dairy

food, have low rates of osteoporosis.³ Dietary protein increases production of acid in the blood which can be neutralized by calcium mobilized from the skeleton.⁴

Aortic valve replacements are done when too much calcification of the heart valve leaflets takes place. According to The Cleveland Clinic, fibro-calcific degeneration most commonly affects the aortic valve. According to reports, calcified heart valves typically occurs in adults over the age of 65. When valve leaflets are calcified, the valve leaflets become fibrotic (thickened) and calcified (hardened),



producing a narrowed valve opening.

Dietary surveys clearly show that magnesium, not calcium, intakes have been falling over the last fifty years. This is a problem because it is magnesium that controls the fate of calcium in the body. If magnesium is insufficient calcium will be deposited in the soft tissues (kidneys, arteries, joints, brain, etc.).

Countries with the highest calcium to magnesium ratios (high calcium and low magnesium levels) in soil and water have the highest incidence of cardiovascular disease. At the top of the list is Australia. Adequate levels of magnesium are essential for the heart muscle.

Some researchers predict that the American ratio of calcium to magnesium is actually approaching 6-to-1, yet, the recommended dietary ratio of calcium to magnesium in the United States is 2-to-1.

Researchers estimate currently that the ratio should be two parts

calcium to one part magnesium.⁵ Mothers breast milk is ten parts calcium to only one part magnesium so it seems that at least early in life we need less magnesium and more calcium to build strong bones. Though high doses of calcium carbonate taken alone over a long period of time will lead to low magnesium levels,⁶ magnesium is what is needed to encourage the correct utilization of calcium by the body to increase bone strength.⁷

According to Dr. Sarah Mayhill, calcium and magnesium compete for absorption and so too much calcium in the diet will block magnesium absorption. Medical authorities claim that the widespread incidence of osteoporosis and tooth decay in western countries can be prevented with a high calcium intake. However the opposite is true. Asian and African populations with a very low intake of about 300 mg of calcium daily have very little osteoporosis. Bantu women with an intake of 200 to 300 mg of calcium daily have the lowest incidence of osteoporosis in the world. In western countries with a high intake of dairy products the average calcium intake is about 1000 mg. With a low magnesium intake, calcium goes out of the bones to increase tissue levels, while a high magnesium intake causes calcium to go out of the tissues into the bones. Thus high magnesium levels leads to bone mineralization.

Some gynecologists believe that one of the first organs to calcify is the ovaries, leading to pre-menstrual tension. Dr. Karen Kubena, associate professor of nutrition at Texas A & M University indicates that even if you monitor your magnesium level like a maniac, you're still at risk for migraines if your calcium level is out of whack. It seems that higher than normal blood levels of calcium cause the body to excrete the excess calcium, which in turn triggers a loss of magnesium. Let's say you have just enough magnesium and too much calcium in your blood. If calcium is excreted, the magnesium goes with it. All of a sudden, you could be low in magnesium, says Dr. Kubena.

As a general rule, acid substances tightens the body and alkaline substances relax the body. Magnesium is alkaline and it relaxes the body from tightness, tension, stiffness, spasms, twitches, tics or jerkiness as in nervousness, anxiety, anger, fear, agitation, headaches, muscle cramps, menstrual cramps, arthritis, insomnia, constipation, heart palpitations, irregular heartbeats, high blood pressure, eye twitches, acne, plaque on teeth, plaque on heart and arteries due to cholesterol build-up, plaque on the brain (Alzheimer's). Magnesium acts as a natural gate or valve in the brain

synapses that regulates influx of calcium into postsynaptic calcium channels from presynaptic neurons in parts of the brain that are involved in mood and behavior such as the hippocampus. With inadequate magnesium (calcium toxicity), this function becomes altered and irritability, anxiety, depression, ADHD, mania, hypo-mania, bi-polar disorder, hyper-excitability and hyper-emotionality, and perhaps some psychoses, result.

Experts say excessive calcium intake may be unwise in light of recent studies showing that high amounts of the mineral may increase risk of **prostate cancer**. * Dr. Carmen Rodriguez, senior epidemiologist in the epidemiology and surveillance research department of the American Cancer Society. Rodriguez says that a 1998 Harvard School of Public Health study of 47,781 men found those consuming between 1,500 and 1,999 mg of calcium per day had about double the risk of being diagnosed with metastatic prostate cancer as those getting 500 mg per day or less. And those taking in 2,000 mg or more had over four times the risk of developing metastatic prostate cancer as those taking in less than 500 mg. The recommended daily allowance (RDA) of calcium is 1,000 mg per day for men and 1,500 mg for women.

Treatment with Sodium Thiosulfate

Sodium thiosulfate (STS) is a calcium chelating agent with antioxidant properties. Dr. Carlos E. Araya The beneficial effects of sodium thiosulfate (STS) are thought to be due in part to its ability to enhance the solubility of calcium deposits. STS has a small molecular weight of 248 ($\text{Na}_2\text{S}_2\text{O}_3$) and in patients with normal renal function has a serum half-life of 15 min. STS facilitates the mobilization of calcium from vessels and kidneys affected by calcium deposits. It can be given Intravenous and it is well tolerated in children and young adults.

Acidic waste

This acidic waste from our Western diet will gradually accumulate somewhere in our capillaries blood vessels, and eventually clog them up. It deprives us of our essential oxygen and nutrients, rendering the cells inactive. That's the main reason why people age. Moreover, with the capillary blood vessels clogged up, the function of every organ in the human body accumulating acidic waste will begin to deteriorate, causing serious illnesses in the long run.

One of the first warning signs of an acidic biological terrain is calcium deposits. Our dietary intake of calcium is not keeping up with the calcium buffering needed and we are actively pulling calcium from our bones and teeth into our blood. As our cells become acidic, our pH level drops. When this happens we start losing calcium out of the blood, the bones, and the tissues. This is a safety mechanism. Now your biological terrain's oxygen level drops leaving you tired and fatigued, allowing fungus, mold, parasites, bad bacteria, and viral infections to flourish and gain a hold throughout the body. If you have Candida you will likely have bad bacteria, fungus, and parasites because they all flourish in the same terrain.

Mild acidosis can cause such problems as:

- Cardiovascular damage, including the constriction of blood vessels and the reduction of oxygen.
- Weight gain, obesity and diabetes.
- Bladder and kidney conditions, including kidney stones.
- Immune deficiency.
- Acceleration of free radical damage, possibly contributing to cancerous mutations.
- Premature aging.
- Osteoporosis; weak, brittle bones, hip fractures and bone spurs.
- Joint pain, aching muscles and lactic acid buildup.
- Low energy and chronic fatigue.

A recent seven year study conducted at the University of California, San Francisco, on 9,000 women showed that those who have chronic acidosis are at greater risk for bone loss than those who have normal pH levels. The scientists who carried out this experiment believe that many of the hip

fractures prevalent among middle aged women are connected to high acidity caused by a diet rich in animal foods and low in vegetables. This is because the body borrows calcium from the bones in order to balance pH. * American Journal of Clinical Nutrition.

The biggest problem scientists have found is that over time the human body becomes depleted of calcium. A compound called mono-ortho-calcium phosphate is the chemical buffer for the blood. This buffer maintains the alkaline level in your blood. Without it you would die. If the acidity level of your blood changes even slightly, you die immediately! But in order to supply enough calcium for buffering we must have enough calcium being absorbed from our diet. If not, our body will simply rob the needed calcium from our bones and teeth. The more acidic we become, the harder it is for oxygen to be present, so our biological terrain also becomes more anaerobic.

[1](http://www.health.state.ny.us/diseases/conditions/osteoporosis/qanda.htm) <http://www.health.state.ny.us/diseases/conditions/osteoporosis/qanda.htm>

[2](http://www.acu-cell.com/acn.html) Accu-Cell Nutrition; Calcium and Magnesium <http://www.acu-cell.com/acn.html>

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3. FISH OIL

Omega-3 fish oils are one of the most popular supplements in the UK. ¹⁸

The benefits of fish oil supplementation have been grossly overstated, and media coverage over the past few years has focused on claims that fish oil may increase children's brainpower and concentration. People are hyped on it.

Most of the studies showing fish oil benefits are short-term, lasting less than one year

The only fish oil study lasting more than four years showed an increase in heart disease and sudden death

Fish oil is highly unstable and vulnerable to oxidative damage

There's no evidence that healthy people benefit from fish oil supplementation

Taking several grams of fish oil per day may be hazardous to your health. Some health gurus advise you take up to 20,000 mg/d!

A new study was recently published showing that [3,000 mg/d of fish oil in patients with metabolic syndrome increased LDL levels and insulin resistance.](#)

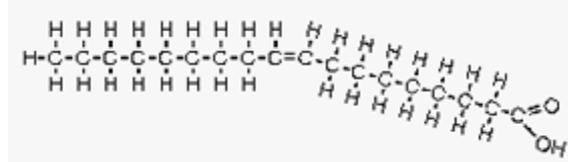
The medical community suffered three significant fish oil failures/setbacks in 2013.

- Claims that fish oil's EPA/DHA would stop the progression of heart disease were crushed when The Risk and Prevention Study Collaborative Group (Italy) released a conclusive negative finding regarding fish oil for those patients with high risk factors but no previous myocardial infarction. Fish oil failed in all measures of cardiovascular disease (CVD) prevention—both primary and secondary. ¹ This study was so conclusive that Eric Topol, MD, Editor-in-Chief of Medscape and Medscape's Heartwire for cardiologists, issued a new directive to patients to stop taking fish oil, that is, long-chain EFA metabolites of EPA/DHA ².
- Another major 2013 setback occurred when fish oil's DHA was shown to significantly increase prostate cancer in men, in particular, high-grade prostate cancer, in the Selenium and Vitamin E Cancer Prevention Trial (SELECT) analysis by Brasky et al. ^{3, 18}
- Another monumental failure occurred in 2013 whereby fish oil's EPA/DHA failed to improve macular degeneration. In 2010, fish oil's EPA/DHA failed to help Alzheimer's victims, even those with low DHA levels. These are by no means isolated failures. The promise of fish oil and its so-called active ingredients EPA / DHA fails time and time again in clinical trials. This lipids-based physiolo-

fatty compounds are removed. Exposure to light, heat and air causes all oils to become rancid. All of this processing renders fish oils into products far removed from their natural whole food origin. Not all the toxins can be completely removed from the fish oil. Residual trace amounts remain in the oil that can accumulate in your body over time and create inflammation and serious complications, even though they may be below detectable levels set by the manufacturer. Also, during industrial processing, the oils oxidize and become rancid, which explains the fishy smell or burp. So the oil must be deodorized; lemon flavour may be added. Unfortunately, rancid oils are easily concealed in gelatin capsules, and they are pro-inflammatory when consumed.

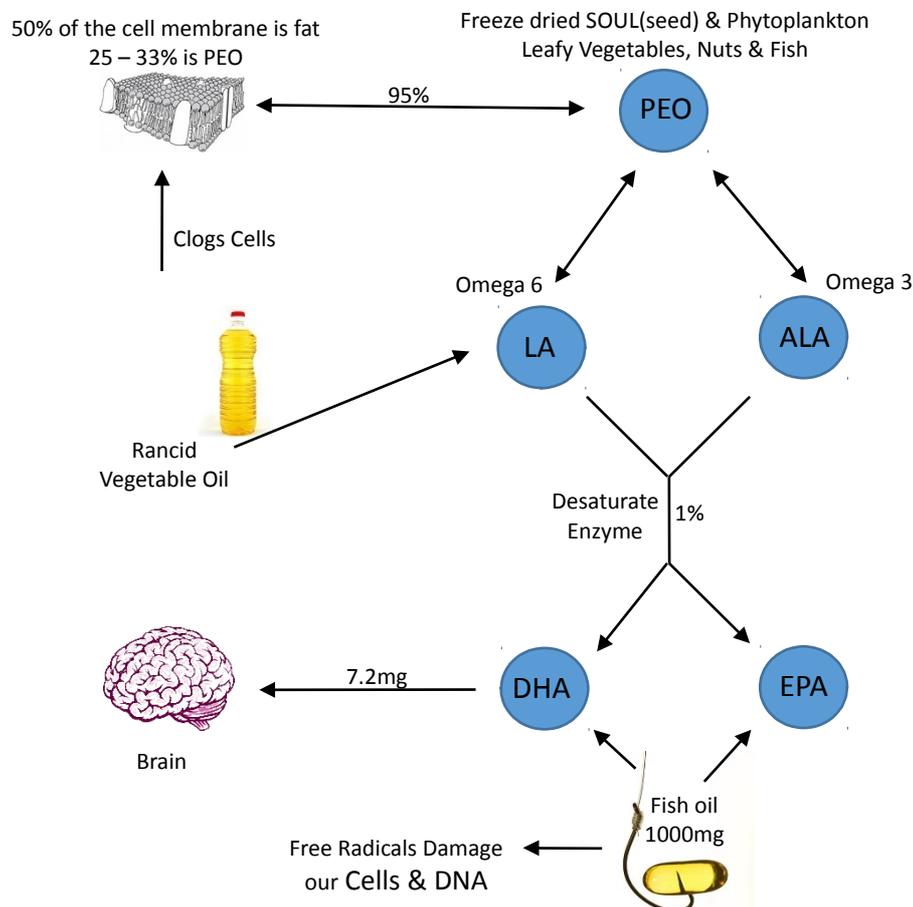
Parent Essential Oils (PEOs) and Derivatives

There are only two true 18-chain carbon essential fatty acids (EFAs): linoleic acid (LA or Omega 6)



with two double bonds (as in the sketch above) and alpha-linolenic acid (ALA or Omega 3) with three double bonds. Neither can be manufactured in the body; both must come from food.

Longer-chain metabolites are synthesized from LA and ALA. These long-chain metabolites are not essential and often incorrectly termed 'EFAs'—are correctly termed as 'derivatives.' For example, common derivatives of the omega-3 series are EPA (eicosapentaenoic acid) with five double bonds and DHA (docosahexaenoic acid) with six double bonds. To clarify the issue, I term LA and ALA 'Parent Essential Oils' (PEOs) or 'Parents.' I properly term all of their long-chain metabolites as derivatives.' The body makes these important derivatives from Parents 'as needed' in naturally minute amounts. The literature often fails to clearly distinguish these two vastly different substances.



Most Parents oils stay as Parents

A major mistake was made when they assumed a vast majority of 'Parents' would be converted into 'derivatives.' This did not occur. In humans, no more than 1% of Parents are naturally converted into derivatives. Fish oil mania wrongly (and hazardously) assumes the converse.

Rancid Fish Oil changes your cells membrane properties, impairing oxygen transmission into and through the cell. ⁵ Physicians and other health professionals who recommend high doses of fish oil remain in the body and the excess EPA/DHA cannot be beta-oxidized away. Thus a significant amount of the excess will be physiologically incorporated into all cell membranes, detrimentally.

The innermost lining of arterial intima is endothelial tissue, comprised of epithelial cells containing significant LA, (Omega 6) but no alpha-linolenic acid (ALA). ^{6,7} Dietary LA becomes adulterated (peroxidized) from food processing and deposited in arterial intimal cell membranes and leads to abnormal oxidation at the vascular injury site, thus causing inflammation.

As you may know, oxidized (rusted/rancid) cholesterol is a major cause of vascular disease. It's quite possible that fish/krill/marine oils contribute to this oxidation process. Research confirms, absolutely, that 'foods' containing oxidized (rusted/rancid) oils attached to the cholesterol are the direct cause of vascular disease. And most fish oils (though not all) are already rancid before you even buy them. If you take these oils, they will oxidize your cholesterol. This will wreak havoc, even if your cholesterol levels are 'low'. You have to correct the cholesterol structure. The way to do it is to incorporate plenty of fully functional unoxidized PEOs.

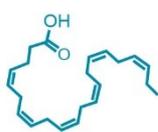
Fish Oil's do become rancid at room temperature, and even more in your body. Polyunsaturated fatty acids including LA, has long-chain fatty acids with weak bonds, making them susceptible to attack by reactive oxygen species (ROS) generated elsewhere in the body. ⁸ Because of the five double bonds in EPA they are highly sensitive to temperature. EPA and DHA is an omega-rich formula derived from the component of fish oil.

Cold-water [oceanic fish oils](#) are rich in DHA. DHA, with its 6 double bonds, is 320 times more

ALA
Alpha-Linolenic Acid
18 carbon
3 double bonds



DHA
Docosahexaenoic Acid
22 carbon
6 double bonds



EPA
Eicosapentaenoic Acid
20 carbon
5 double bonds



susceptible to oxidative attack, or to become rancid, than monounsaturated oleic acid (18 : 1) with its 1 double bond.

If for instance if our saturated fat membrane contains only 5% DHA fish oil, it is 16 times more susceptible to peroxidative damage. ⁹ Fish oil's DHA is 7 times more susceptible to peroxidative damage than LA

(Omega-6), the most significant fatty acid by both weight and functionality in the cell's bilipid membrane. We don't need the DHA or EPA as we are not made to weather the cold Nordic waters.

Fatty, cold-water fish (the type we are told is best) live in temperatures as low as 32°F, but warm-water fish may live in 70°F waters and have 14Xs less EPA/DHA content than their cold-water relatives. ¹⁰ At normal temperatures the fish oil becomes rancid, and your body has no means to tackle that problem.

If we had to swim in the cold Nordic waters, we will die of hypothermia. Fish do not freeze because they have significantly

higher levels of PEO derivatives as EPA and DHA. Our ambient and physiologic makeup is totally different. EPA/DHA acts as 'biological antifreeze' to fish living in cold waters. Humans do not require 'antifreeze' with an internal temperature of 36.5°C.

Fish oil causes inflammation in vivo because EPA/DHA spontaneously oxidize at room temperature and much more quicker with our body temperature. Their harmful hydroperoxide products become

incorporated in esterified cholesterol and it is well known in cardiology that oxidized cholesterol causes the inflammation leading to Cardio-vascular disease. Increased cancer is expected with increased consumption of marine oils.

Inflammation alone, regardless of initiating conditions, accelerates cancer proliferation. Since 2007, cancer researchers understand and acknowledge that the fundamental, prime cause of cancer is inflammation, not genetics.^{11, 12, 13} A further inflammation/cancer connection was reported in *Cancer Epidemiology, Biomarkers & Prevention* in 2005, with the statement that there is a growing body of evidence supporting the role of chronic inflammation with prostate carcinogenesis and thus the associations of trans fatty acids with increased inflammatory response may explain their associations with prostate cancer risk.¹⁴ The SELECT³ showed that marine oil's DHA was more inflammatory than trans fats.

New, 21st century quantitative research from both NIH and USDA shows considerably lesser amounts of natural DHA conversion/usage from ALA than the medical community has been led to believe. These findings will upset many health professionals, recommending fish oil prophylactically. The conversion amount is much less than the medical field assumes: it is less than 5%—often less than 1%—with at least 95% of PEOs staying in its Parent form. This singular mistake of assuming very high conversion amounts, whereas in actuality their conversion amounts are extremely low, led to the irrational fish oil mania.

Contrary to wrong dogma, the enzymes that produce PEO derivatives (the delta-6 and delta-5 desaturase enzymes) are not impaired in the vast majority of patients.¹⁵ Conversion of ALA (Parent omega-3) to DHA is unlikely to ever normally exceed 1% in humans.¹⁶

Research at the United States Department of Agriculture's USDA Food Composition Laboratory (2001) reported a natural net conversion rate of a mere 0.046% of ALA to DHA and 0.2% to EPA—not the highly misleading 15% conversion rate that is often quoted.¹⁷ This is a mistake of nearly 2 orders of magnitude (100-fold). In 2009 NIH researchers determined the amount of DHA utilized in human brain tissue to be a mere 3.8 mg ± 1.7 mg/day. Therefore, based on the variance, brain tissue in 95% of all subjects, allowing for variation in brain size, would consume no more than 0.4 mg–7.2 mg of DHA per day.¹⁵

Highly accurate, quantitative experiments were performed showing that both animals and the average healthy person are quite capable of metabolizing adequate amounts of DHA from Parent omega-3 (ALA).

As will be clearly demonstrated, there is no widespread impairment in the typical patient whatsoever; the normal conversion amounts are simply very low. These conversion amounts are extremely small and naturally limited. This mistake often leads to gross overdose by factors of 20-fold to 500-fold, depending on specific supplement and amounts prescribed.

Because the body cannot oxidize away these tremendous overdoses of EPA/DHA, they become incorporated into tissue and organs with deleterious effects as confirmed by the skyrocketing increase in all epithelial-based cancers. Your cells are choked by them causing gross physiologic imbalance and great potential for harm.

Even vegetarians consuming little or no fish had acceptable EPA/DHA levels.¹⁸ This is a group that absolutely would be expected to manifest gross neurological abnormalities, including both visual impairment and cognitive impairment, yet there is no clinical evidence of such neurologic and cognitive abnormalities in vegetarians.^{19, 20}

Confirmation in 2010 showed that vegetarians with an intake of 0.3% DHA compared to fish eaters produced 85% of the EPA levels and 83% of the DHA levels that consumers of fish did. These amounts are within the 'normal' ranges.²¹

The American Heart Association states that those with documented CHD are advised to consume about 1 gm (1,000 mg) of EPA + DHA per day. An average 1,000 mg health-food-grade fish oil capsule contains approximately 180 mg EPA and 120 mg DHA. Pharmaceutical-grade versions contain higher doses. The tragedy is that fish oil taken in the amounts that most physicians recommend can overdose you with 20-times too much DHA and 250-500 times too much EPA. Just think what would happen if you took 250 Paracetamol tablets – you'd be dead! Of course, fatty acids are not a drug like Paracetamol. But, anything can act like a drug in your body if you take it in pharmacological amounts. That's my concern about the uncontrolled rise of marine oil consumption. We just don't know what they will do in the long run.

Abnormal peroxidation of the Parent omega-6 oil (LA) is the core of the EFA-based deficiency. It has nothing to do with marine oils and everything to do with the adulteration of the plant-based Parent essential oil, LA. For example, trans fats—to some extent—are found in all commercial restaurants, supermarkets' prepared food and frozen food sections, and even in fine-dining restaurants' frying oils. The substrate for trans fats is Parent omega-6 (LA). Just 0.5 grams of a 1% trans fat containing adulterated oil (a conservative amount) is very harmful to humans. Even with the FDA's 2014 ban on trans fats, the FDA allows <0.5 grams/serving to be labelled as zero (0). Yet, this apparently negligible amount contains enough trans fats to overpower each cell in the body by a factor of approximately 3,600.²²

Marine/fish oils do nothing to promote cellular oxygenation in the mitochondria—this is a key role exclusive to Parent omega-6 (LA).^{5,23} Marine oils, due to their inherent inflammatory property in vivo, cause the opposite of the desired effect and are therefore toxic.

When you ingest unadulterated fatty acids, they will gradually replace the adulterated (rusted, deformed trans) fatty acids in your cells. This allows your body to repair the damage and reverse arterial age. It can be remedied. Once removed, it takes 18 weeks to fully rid patients of the negative effects of fish oil.²⁴

As a summary: Your body is really looking for 18 carbon-chain fatty acids, called 'parent essential oils.' EPA or PEO. Fish oil will not provide those fatty acids. These 18 carbon-chain fatty acids are the 'heart and soul' of your cell membranes. The normal person doesn't naturally convert very many fatty acids into long-chain derivatives (EPA and DHA). Normally, at least 95% of EFA or PEO will remain in parent form and only 1% or less will be broken down in derivatives like EPA and DHA, as your body sees fit in its own wisdom.

What our body really needs is Parental Essential Oils that are a plant based oils that are not derivatives but the parent oil of omega 6 and omega 3 that are organically raised and processed. Those oils enable the body to make the derivatives that it needs. Today we are blessed as can obtain the 'good PEO' via freeze dried products like Phytoplankton and SOUL. (Freeze dried seeds) A study that really convince many and Dr. Rowen to stop fish oil and to switch to plant based oils was the IOWA STUDY. * <http://brianpeskin.com/BP.com/studies-experiments/IOWA-Study-Results.pdf>

The study used Photoplethysmography to measure the difference in arterial flexibility between subjects taking PEO and those taking fish oils. Photoplethysmography (PTG) is a non-invasive test that measures the arterial flexibility. It is a superb diagnostic tool of the measurement of arterial hardening. This measurement can then be compared to a known population to provide the biological age of person based on the degree of hardening.

The first group was 35 patients who NEVER received any type of fish oil. They had base line PTG and then were started on plant based essential oils.

In a completely different group involving 15 subjects, who had been receiving various brands of fish oil for 6 months, were asked to stop the fish oil and begin using the plant based oils.

In the first group who never receiving fish oils and started using plant based oils after 24 months an astounding 73% had an average improvement of 9 biological years in their arterial age.

In the second group only after using the plant based fish oils for 3½ years another scan was performed. It proved an 87% effectiveness rat, a reduction in biological arterial age of 11.1 years, measured by standard population samples. This study indicates that the fish oil has no positive affect on your body and it may harm you.

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4. Iron Overload

Iron is a most versatile element. It is essential to many of the enzymes that are the engines for life, and in mammals is also used to carry oxygen on haemoglobin in blood. But the very quality that makes iron so useful also makes it dangerous. Iron can easily lose or gain one electron going from the ferrous (Fe^{++}) to the ferric (Fe^{+++}) state, back and forth indefinitely. This is how it carries oxygen, for example.

It also means it can be a potent pro-oxidant – it catalyses the production of free radicals which can destroy cells and tissue, and thereby contribute to cancer and heart disease.

Life forms like us have developed extensive defence mechanisms that allow us to use iron for life's work while keeping it away from anywhere it is not immediately needed within cells and in the body in general.

Iron fortification sweeps the world

Severe iron deficiency is a health problem in much of the world, but in the US it is uncommon.

The recommended daily allowance for adult men is about 8mg per day, and for adult women under 50 it is about 18mg per day (for pregnant women 27mg per day is recommended). Recommended daily allowances are higher for vegetarians. Most Americans get all the iron they need from their diet. And some foods are supplemented with iron.

During the first half of the 20th century, both medical and public health forces began to aggressively promote iron fortification of food to fight iron-deficiency anaemia, particularly in the developing world where the problem was most acute and as much as half the population of some areas fit the definition of anaemia.

Of the many harmful effects of severe iron deficiency perhaps of greatest concern are the developmental problems in children.

Severe iron deficiency is harmful, but that isn't the whole story.

Researchers found that Somali nomads who ate iron restricted diets (very low in meat, but rich in dairy) had lower prevalence of infectious diseases than those that ate more meat.

Dietary iron falls into two categories:

- **Heme Iron** Heme iron is the most readily absorbed form of iron, and it's found in shellfish, red meat, poultry, and fish (see the chart in this article about iron rich goods). On average, people absorb between 15-35% of the heme iron they consume. The structure of heme and chlorophyll is very similar. Heme has an iron molecule and chlorophyll has a magnesium molecule at its nucleus.
- **Nonheme iron** Nonheme iron is found in plant foods, as well as in eggs, milk, and meat. Compared with heme iron, it's less easily absorbed by the body.

Moreover, sources of nonheme iron often contain phytates, which bind to iron and carry it through the digestive tract unabsorbed. As a result, the foods with high iron content aren't necessarily the best sources of iron. By weight, soybeans have roughly twice the iron of beef. But only about 7% of the iron in soybeans is absorbed. Spinach is also high in iron, but less than 2% of the iron in cooked spinach is absorbed.

Iron absorption inhibitors

The flip side of the coin are substances that inhibit the absorption of iron:

Phytic acid (found in grains, legumes, and other plant foods); egg protein (from both the white and the yolk); minerals that compete with iron for absorption: calcium, zinc, magnesium and copper, tannic acid (in tea); certain herbs, including peppermint and chamomile; coffee; cocoa and fibre.

Note many nutritious and healthful foods contain iron absorption inhibitors. It's not desirable to cut these out of your child's diet--your child needs calcium, zinc, phosphorus, and fibre.

However, if your child is iron deficient, it might be helpful to avoid some of these foods just before, during, or after a meal that contains iron rich foods.

Phytates, which are found in most plant foods, can reduce iron absorption by up to 80%. Vitamin C, consumed along with a meal--can counteract the effect. In one study, pre-schoolers with iron

deficiency anaemia were given vitamin C supplements twice a day. After two months, most of the kids were no longer anaemic.

The downside of iron is that almost all infectious agents including bacteria, fungi, and protozoa that cause disease require iron for their growth. They have developed proteins called siderophores that scavenge iron from their human hosts so they can thrive and multiply. One defence mechanism we have against a bacterial infection is to develop a fever; this is because siderophores don't work at temperatures above 40 degrees Celsius, whereas they work very well at our normal body temperature. For a long time iron was a valued nutrient: if a little is good, then more must be better. This was the worldwide chant to fight iron-deficiency anaemia. Food was iron "fortified" as much as possible. For example, widespread fortification of flour in the United States began in the 1930s. The tipping point for the iron fortification debate came in 1978 when an eminent physician and scientist named William Crosby published a paper in the Journal of the American Medical Association called The Safety of Iron-Fortified Food. He argued that although there are some groups at risk of anaemia such as pregnant women, adding iron to the food supply in general exposes many who are not at risk of iron deficiency, and who might therefore be harmed. It was a provocative idea at the time, but he was taken seriously. In 1978 Researchers in Sweden found increasing rates of early-stage hemochromatosis among men. Hemochromatosis is an iron overload condition that in its later stages kills by heart attack or cancer. Further studies in Sweden suggested that iron fortification was harmful for people with genetic hemochromatosis. Iron fortification of food in Sweden was the highest in the world until it was withdrawn in 1995.

Iron overload may affect any organ in the body and may include symptoms such as fatigue, depression, arthritis, irregular heartbeat, high blood sugar and/or diabetes, shortness of breath, swelling of the abdomen and legs, jaundice, loss of sexual drive, premature menopause, loss of body hair, shrivelling of the testicles, hypothyroidism, and redness of the palms of the hands. A suntan that does not fade in winter may or may not be present. The excess iron oxidizes in your body and can literally rust your organs leading to diseases such as cancer, thrombosis, cirrhosis, arthritis and so forth.

One in eight people of Northern European ancestry may be carriers of genetic hemochromatosis, also known as iron overload disease or iron storage disease. Hereditary hemochromatosis has been dubbed the "Celtic Curse" and it is the most common genetic disease of the Celtic people. They absorb too much iron until it reaches toxic levels.

Cancer and the battle over iron

People with iron overload provide a favourable environment for cancer growth. Excess iron storage in the liver is carcinogenic for primary liver cancer. Liver cirrhosis may develop due to iron burden, and thus early detection is vital. Tumours require iron for survival and when there is an iron deficiency anaemia, one must search for cancer. Iron might be sequestered by the tumour.

Dry weight of iron in breast cancers are threefold greater than that of normal breast tissue. Nearly 90% of those with metastasizing breast cancer have elevated serum ferritin - marker of iron storage. The severity of cancer is related to displacement of iron. Levels of iron go back to normal if a person recovers. This is why it is very important to screen for iron markers. If they are low, it is essential to investigate for cancer or infection.

Inhalation can be another form of iron entry into the body, raising the risk of cancer. Workers in iron mines develop bronchial cancer five to ten times the rate of the general population. Lung cancer can be nearly 8 times higher than expected in patients with hemochromatosis. Other cancers recorded are pancreas, stomach, rectum, gallbladder, bladder, prostate, colon and brain among others.

Too much iron is bad, but so is too little – what's just right?

After all these years of conflicting research and often extreme opinions on iron, it turns out that like anything else that is a benefit in moderation, in excess it is a harm.

Severe iron deficiency anaemia is still a real problem in the developing world and requires treatment, particularly for children and pregnant women. However, we must avoid over-treatment because too much iron is dangerous. There needs to be a balance.

Mild iron deficiency for non-pregnant adults may have some benefits such as lower risk of cancer and heart disease, and lower susceptibility to infectious disease. The best way to attain mild deficiency is to donate blood regularly.

5. CHEMTRAILS and Morgellons disease

This is something that I've thought about for a long time, and every now and then I'll hear something new about it that will make me more curious. I have learned about this condition about 5 years ago and I did treat some patients, who proved they were not psychological misfits.

If diseases like AIDS and bird flu scare you, wait until you hear what's next. Doctors are trying to find out what is causing a bizarre and mysterious infection that's surfaced in many Western countries.

Morgellons disease is not yet known to kill, but if you were to get it, you might wish you were dead, as the symptoms are horrible. Patients get lesions that never heal. Sometimes little black specks appear from the lesions and sometimes little fibres. The strange fibres that pop out of your skin, has different colours. While all of this is going on, it feels like bugs are crawling under your skin. First, there is the frustration that the disease not appropriately recognized and treated: this fact may lead to psychological damages which can further worsen the existing condition. Secondly, permanent lesions involve the skin, eyes, brain and joints, and they are the main structures that undergo a partial/total loss of function, leaving the patient life-impaired. Because of the bizarre array of symptoms, the patients are diagnosed as being delusional. If you think it is delusional, then be brave enough to share this to an iconic 1960s singer/songwriter Joni Mitchell who was hospitalized after being found unconscious in her home with Morgellons disease.

What really tipped the scale for me, is when I read the entire NASA slide show, which is compiled by their chief scientist. Today it is in the open and no secret. We need to take a deep look at this.

<https://fedgeno.com/documents/future-strategic-issues-and-warfare.pdf>

Slide 43 sums up 'micro dust' weaponry. It reads:

'Micro dust' is mechanical analogue to Bio, Micron sized mechanized 'dust' which is distributed as an aerosol and inhaled into the lungs. Dust mechanically bores into lung tissue and executes various 'pathological missions.' It is a whole 'new' class of weaponry which is legal. The 'micro dust' are the nanotechnology engineered fibres they sprayed on us via the chemtrails.

On slide 9 they've announced that humans have 'gotten in the way' of evolution, which they clearly feel must give way to cyborgs and robots, artificial intelligence.

On slide 13 they show what they consider to be the 'ages of man' and their clear efforts to exterminate us. The Georgia [Guidestones](#) carved their message into solid granite stones, to tell us in an incredibly arrogant way! They envisage a final population of half a billion, so 13 in 14 people will die. <https://mail.google.com/mail/u/0/?tab=wm#inbox/14c807096e4da16c?projector=1>

On slide 45 they announce their intention to use beam weapons ([scalar waves such as HAARP](#)) against us. We are now officially 'the enemy' of these evil ruling elite magnates who are very openly seeking to exterminate us via chemtrails, and beam weapons, all of which are discussed in [this NASA slide show](#). They announce their intentions of using specific electromagnetic pulsed frequencies to control our minds and bodies to jam our immune systems to weaken, kill and enslave us. ['Smart Meters'](#) are clearly part of this extermination campaign.

On Slide 66 they chillingly announce our critical human limitations and downsides' clearly showing that we must 'give way' to the intelligent robots which will develop the ability to reproduce themselves.

The mad, mad agenda of the superrich is to wipe out most of humanity, to make the earth into a giant park for them to live in. Fantasy? Decide for yourself. There are many clips on YouTube, and you

will see the motive of one of the richest men on earth - Bill Gates - consenting to kill the humans to save the planet from the carbon dioxide we make. See his lips move. I'm not kidding. Bill Gates proposes that vaccines is the preferred method! Evil lords don't want to share the planet with any more people than they have to. Bill Gates donated huge amounts of money for the development of new vaccines, and their distribution where children need them. Ten billion dollars over the next ten years. The benefits are to reduce the population growth.

I don't believe God created man with the motive to finally create cyborgs, robots and artificial intelligence. Christ who is inside of us is greater than any person or being in this wicked world. ^{1John4:4} If we believe in Christ then we don't need to be shy or feel inferior as we have the power of God inside of us. God is laughing today. In the near future He will return to set things right. ^{Psalms 2} It took me many years to realize we are not the favoured people, on the wrong end of the equation. Don't trust the rich or the government as they will encourage us to eat GMO foods, drink Soda drinks, get your vaccinations, to be 'medicated' to slowly kill us. The animals and the forest do feel the pain of the genetically engineered particles, heavy metals and fibres. Conveniently while we are running out of time, scientists are deliberately wasting our precious time debating whether Morgellons disease is caused by a bacteria or fungus. Once it becomes too clear, it's too late.

Morgellons is a concoction of many types of viruses, fungus and bacteria. It is a combination of organic and inorganic materials genetically combined to form artificial life. It's a combination of piezo-electric crystal, virus, fungus, plant and genetically modified insect. It is activated by photo-ionization (light from the sun) and charged by radio waves in the environment. It uses Tesla technology to pull in energy from its environment (the human body).

However, there are certain commonalities that exist among almost all patients. The most typical picture of Morgellons patients goes something like this: A healthy person suddenly wakes up one day with unbearable itching, stinging, burning and crawling sensations all over and underneath their skin. They also notice blue, black, red, clear, white and purple fibres emerging from, or popping out of, their bodies. They begin scratching and digging at the lesions, pulling out fibres, 'black specks,' bugs, worms, and, sometimes, hexagon-shaped objects from different regions of their bodies. Accompanying these symptoms are a host of additional neurological complaints such as headaches, 'brain fog,' exhaustion, loss of coordination, and confusion. They seek help from their doctors, who can find nothing wrong other than basic skin inflammation. If the patients have collected samples of the fibres and showed their doctors, they are labelled as needing psychological help, because the doctors have no means to treat them. The doctors then refer the patients to mental health professionals, and the patients are told the disease is 'all in their heads.'

But now there is physical evidence that Morgellons is not just psychological. When pharmacologist Randy Wymore offered to study some of these fibres if people sent them to him, he discovered that 'fibres from different people looked remarkably similar to each other and yet seem to match no common environmental fibres.' When they took them to a police forensic team, they said they were not from clothing, carpets or bedding. They have no idea what they are. Researcher Ahmed Kilani says he was able to break down two fibre samples and extract their DNA. He found that they belonged to a fungus.

An even more provocative finding is that biochemist Vitaly Citovsky discovered that the fibres contain a substance called 'Agrobacterium,' which, according to New Scientist, is 'used commercially to produce genetically-modified plants.' Could [GM plants](#) be 'causing a new human disease?' The giant transnational corporations behind the GMO revolution are hitting us in our most vulnerable spot – our bellies. Most people have been brought up with an innate trust that what they purchase from the stores is safe to eat. This is no longer true, since most processed foods contain genetically engineered ingredients that can have disastrous effects on both animal and human

health. What you purchase from the corner store might just change your DNA and create such frightening symptoms that the general public simply does not believe it. What is worse is that when you go to the doctor to get help, to be told what you are experiencing is all in your head. This is rubbish! It is up to people who care to make the correlations between what we eat and what happens to our bodies. Remember the old saying – ‘you are what you eat?’

The fibres creates a living antenna circuit within the body, and it is very sensitive to almost all radio waves. It has the ability to both send and receive signals creating a reactive living circuit. The fibres are made up of cellulose and metal which act as conductors and antennas. The dimensions of the fibres could allow communication with cell towers or the megahertz range. Being microscopic, it is created to operate with very small voltages, millionths of a volt.

The ruling elite have devised chemtrails as a means of covertly micro chipping us all in order to create antennas inside of us via nanotechnology so as to make us totally controllable via a "psychocivilized" (electronically mind controlled) society. Using HAARP microwave antennas, the National Security Agency (NSA) can establish a seamless computer link direct to our brains, but first they're using chemtrails to get the nanoparticles into us which are reassembling in our bodies to form the antennas. They want to control our minds. They're trying to kill off 90- 95% of us and control everyone else remaining on earth.

Many think this is impossible but we do have a whistle-blower going by the name Dr. Ian Revson operating from inside a major defence contractor where he works as a pharmacologist in bioinformatics. He said: Regretfully, I have concluded most of the epidemic of persistent parasitic infections are due to an advanced government engineered bioweapon, which is sprayed via 'chemtrails' into our skies almost daily. We breathe in the infectious agent, and thus begins the parasitic life cycle of what is clearly government 'black' nanotechnology.

Chemtrails are a component of an integrated atmospheric weapons system, which has multiple purposes, including weather modification, population control, advanced surveillance, biological warfare, and artificial intelligence. In North America and Europe, the program is run under the auspices of the Pentagon and NATO, obviously with help from the American and European defence contractors (Lockheed Martin, Northrop Grumman, Raytheon, Boeing, EADS, Honeywell, etc.) Many others are involved (Monsanto).

'Chemtrails' are presently in operation for weather modification (disaster induction). 'Chemtrails' contain nano-engineered biologics. This is a weaponized parasites. Host saturation is 99% plus meaning we all are infected. Infection includes intracellular anomalies in both human macrophage and red blood cell, apparent soft tissue fungal infection, and the synthesis of novel foreign protein crystals.

Using a simple red-wine mouth rinse, you can yield complex nanofibers from your gums which appear to be of fungal form containing complex internal sub-micron filament structure. Everyone to date is positive for the test. This is a highly advanced government biological and atmospheric weapons system in use against the general public. We all are sucked into this and no one is excluded. Brush your teeth well. Rinse with water. Then Rinse your mouth vigorously for 5 minutes with 1 tsp peroxide, 2 tsp Merlot red wine. Prepare to be shocked and upset that the nanotechnology you spit out, and you may want to send a thank you note to your government to allow this.

Treatment

It is partially magnetic so it can be effected by any form of magnetism or pulsed magnetism. Any large magnetic pulse will overload the nanotech microscopic circuitry causing it to explode. It is radioactive giving off low level gamma radiation used for power generation. It was created to be self-power generating and to store energy in miniature nanotube batteries. Using metallic crystals it uses

radio waves in the environment to create voltage for power. It is tuned to 50-60 Hz, the frequency found in the electrical system in every household! Basically it is using the energy around us. Luckily some people are smart and they proved Pulsed Magnetic therapy destroys Morgellons! It makes thousands of Morgellons organisms migrate towards the surface of the skin as if attracted to the transmitted signal like microscopic magnets! As they migrate, they die giving off bursts of small electrical charges and heat! The bursts of energy verify the fact that these organisms generate electricity and pulsed magnetism is their weakness.

Morgellons organisms were subjected to the following tests and here are the results;

<u>Test / Substance</u>	<u>Results</u>
Acetone	Organism turned red
Water	No effect
20 Mule Team Borax w/ water.....	Absorbed the mixture, dried up, hardened and died.
Sulphuric Acid.....	Organism attempted to avoid but eventually died.
Hot water.....	No effect
Fire.....	Fire-resistant but melted
Fresh Squeezed Lemon.....	Absorbed the juice and died.
Glycerine.....	Unable to breath, died.
Colloidal Silver.....	Attempted to avoid any area sprayed.
Oil of Oregano.....	Died quickly
Open wound.....	Attempted to move towards the blood to enter the body!
Electricity 110 -220 volt.....	No effect
Microwave Oven.....	No effect
Magnetic field.....	Organism exploded in a puff of smoke throwing residue on the microscopic lens!

Conclusion - Magnetism Destroys Morgellons!

- Nanotechnology is electrically sensitive and magnetism affects it. This microscopic circuitry can be slowed down or destroyed by subjecting the body to a strong magnetic field. We must attack it at every level. Magnetized and ozonated water will eliminate it from our intestines.
- On the surface of our body we can use Borax diluted with water and DMSO to spray on locally. The residue creates a protective barrier on the skin. After dried apply glycerin all over your body. The glycerin blocks the pores smothering the parasites.
- Glycerine applied to the skin will kill everything on the surface for about 24 hours. Apply it to the skin but not on your scalp. Blocking the pores will cause hair loss. It blocks the pores temporarily smothering the Morgellons organisms which need air to breath.
- Fresh cut lime massaged into the skin will remove all of the larvae and is especially effective in removing it from the scalp.
- Oil of Oregano - Only 2-3 drops for an adult twice per day depending upon weight. The most powerful antifungal, antibacterial, anti-viral agent that you can ingest. Users have reported tremendous success. My personal experience when taken two times per day eliminated almost all activity at night which feels great.
- Green Papaya Powder - 3/4 teaspoon twice daily. Breaks down the proteins that make up Morgellons and encourages evacuation of the intestines.

Clean Out Your Environment

- Ozone Generator. Oxygen in the form of O3 will kill 99% of all viruses, fungus and bacteria in the environment. Place an ozone generator in a room and close it off for 4-6 hours. Afterwards place it in another room and repeat the process until the whole house is treated. The other alternative is to use chlorine dioxide gas fumigation. It will creep into every nook of your bedroom.

- Moth Balls - Place one in the middle of each room, on each bed and piece of furniture. Leave the house for about 6-8 hours. Upon returning to the house, retrieve the mothballs and place them in an airtight container. Open all of the windows to allow your house air to clear out for about an hour before entering. Benzene is a poisonous gas which mothballs give off so avoid breathing it by all means. Afterwards sweep up and vacuum all floors, furniture and walls. Immediately after throw away any vacuum bags and take them outside.
- Do not use any type of zapper or device which conducts electricity through the body because Morgellons lives on electrons. It uses the charges caused by falling through the sky in the metal dust made up of many conductors. Once the nanofibers are on the ground it is kept alive through solar activation of unlike metals in contact with one another. Once inside the body it seeks out the central nervous system because it is a source of electrons.
- A vacuum cleaner will pick up all of the Morgellons left on your bed, couch and chairs. To kill everything under the surface of your mattress, couch and furniture mothballs strategically placed under a sheet will do the trick.
- Placing your dirty clothes in a plastic bag with a mothballs will get rid of them from your clothes. After wash your clothes in Borax. Your shoes can also be placed in a plastic bag with a mothball.

Because of the electrical nature of these creatures they are resistant to chemicals. Chemicals have a limited effect because the body is always cleansing itself by eliminating foreign substances through the liver and bladder. The effectiveness of chemicals is temporary and mediocre. The reason for the difficulty in finding a cure is that everyone is trying to fight an electrical problem with chemicals. We must fight these organisms by attacking their electro-magnetic metabolism.

Therefore magnetism is the logical solution for a solution. Electrical circuits are affected by electrical signals and magnetism. This effect can be seen in AM radios or in older TVs when a powerful CB operator is nearby. Interference is caused affecting their performance. This concept is used by the military to knock out enemy communications through destructive interference. A very powerful signal is transmitted which is picked up by the enemy stopping their ability to communicate. The basis for my theory are established scientific principles of signal propagation. Morgellons lives in a non-magnetic environment, the blood stream. If a very small amount of magnetic energy is introduced into the blood stream, a disruption of the organism's life processes results. The organism dies and it eliminated out of the body. There are videos on YouTube proving that the organism moves away from magnets!

HOW TO AVOID CHRONIC INFLAMMATION

DNA, is the genetic instruction manual of how to build every cell in our body. If our DNA was never damaged, we would easily live 150 years. But disease, toxins, and environmental exposures take their toll. DNA damage is responsible for creating cancer cells, cell damage in the brain, increased inflammation in the body and decreased activity in our organs. The role that oxidative stress plays in damaging DNA cannot be overstated.

By protecting DNA with high absorption of nutrients as curcumin, we in turn can prevent and even treat health problems such as:

- Brain dysfunction and memory problems
- Liver disease
- Strokes and heart attacks
- And more!

The most powerful nutrients I have found for protecting DNA and combating the threat of oxidation - the "cellular rust" that happens as we age - include a clinically-proven high absorption are potent antioxidant and inflammation fighter like Curcumin. It neutralizes free radicals, and stops them from causing cellular damage. It inhibits inflammatory markers in the body to prevent tissue degradation.

The only accepted therapy for inflammation and arteriosclerosis was prescribing medications to lower cholesterol and a diet that severely restricted fat intake. The latter of course they maintained will lower your cholesterol and improve your heart profile. Deviations from these recommendations were considered heresy and could quite possibly result in malpractice. These recommendations are no longer scientifically or morally defensible. The discovery a few years ago that inflammation in the artery wall is the real cause of heart disease is slowly leading to a paradigm shift in how heart disease and other chronic ailments will be treated.

Inflammation causes cardiovascular disease, inflammation is common for heart disease and stroke patients and is thought to be a sign or atherogenic response. It's important to know what inflammation is and what it can do to your heart.

Curcumin, a pure chemical found in the Asian spice turmeric, has been reported to have anti-inflammatory and antioxidant properties, but the mechanisms underlying its observed effects have not been well understood.

In a study published in the journal PLOS ONE, researchers examined the effect of curcumin on intestinal barrier function at the molecular level and in an animal model. They report that a Western diet directly affects the intestinal barrier function and oral curcumin reduced this effect of Western diet on the intestinal barrier function.

The study shows that curcumin does not need to be absorbed to bring about its effects since it had profound effects on the intestinal wall and can effectively reduce inflammation by this mechanism ... and thereby weaken the development of diabetes and atherosclerosis," said principal investigator Shobha Ghosh, Ph.D., professor of medicine and physiology in the VCU School of Medicine.

Our Western diet changes the gut bacterial composition leading to an increase in harmful bacteria in the intestines. It affects the intestinal barrier at several levels, and decreases the activity of a key enzyme—Intestinal Alkaline Phosphatase. Collectively the direct effects of our Western diet on the intestinal wall itself results in the movement of bacteria-derived toxin (LPS) into the circulation where it contributes to the low-grade chronic inflammation.

Once the toxins enter our circulation, the bacteria-derived toxin such as LPS can activate key cells involved with metabolic diseases. If activated, those key cells infiltrate the adipose tissue and can lead to glucose intolerance, or they enter the artery wall where they form plaques, resulting in heart disease.

If we can restrict the release of LPS from the intestine by protecting/restoring the intestinal barrier function, as we did by using curcumin, then we can reduce the development of these diseases.

Curcumin, which is very mildly antibacterial but is not absorbed, has a profound anti-inflammatory effects.

Our Western diet recommendations have created epidemics of obesity and diabetes, the consequences of which dwarf any historical plague in terms of mortality, human suffering and dire economic consequences.

Despite the fact that 25% of the population takes expensive statin medications and despite the fact we have reduced the fat content of our diets, more Americans will die this year of heart disease than ever before.

Simply stated, without inflammation being present in the body, there is no way that cholesterol would accumulate in the wall of the blood vessel and cause heart disease and strokes. Without inflammation, cholesterol would move freely throughout the body as nature intended. It is inflammation that causes cholesterol to become trapped.

Inflammation is not complicated — it is quite simply your body's natural defence to a foreign invader such as a bacteria, toxin or virus. The cycle of inflammation is perfect in how it protects your body from these bacterial and viral invaders. However, if we chronically expose the body to injury by toxins or foods the human body was never designed to process, a condition occurs called chronic inflammation. Chronic inflammation is just as harmful as acute inflammation is beneficial.

What thoughtful person would wilfully expose himself repeatedly to foods or other substances that are known to cause injury to the body? Well, smokers perhaps, but at least they made that choice wilfully.

The rest of us have simply followed the recommended mainstream diet that is low in fat and high in polyunsaturated fats and carbohydrates, not knowing we were causing repeated injury to our blood vessels. This repeated injury creates chronic inflammation leading to heart disease, stroke, diabetes and obesity.

Let me repeat that: The injury and inflammation in our blood vessels is caused by the low fat diet recommended for years by mainstream medicine.

What are the biggest culprits of chronic inflammation? Quite simply, they are the overload of simple, highly processed carbohydrates (sugar, flour and all the products made from them) and the excess consumption of omega-6 vegetable oils like soybean, corn and sunflower that are found in many processed foods.

Take a moment to visualize rubbing a stiff brush repeatedly over soft skin until it becomes quite red and nearly bleeding. If you continue doing this for several times a day, every day for five years, and you can tolerate this painful brushing, then you will end up with a bleeding skin. It will be an infected swollen area that became worse with each repeated injury. This is a good way to visualize the inflammatory process that could be going on in your body right now.

Regardless of where the inflammatory process occurs, externally or internally, it is the same.

Diseased artery looks as if someone took a brush and scrubbed it repeatedly against the wall. Several times a day, every day, the foods we eat create small injuries compounding into more injuries, causing the body to respond continuously and appropriately with inflammation.

While we savour the tantalizing taste of a sweet roll, our bodies respond alarmingly as if a foreign invader arrived declaring war. Foods loaded with sugars and simple carbohydrates, or processed with omega-6 oils for long shelf life have been the mainstay of the American diet for six decades. These foods have been slowly poisoning everyone.

How does eating a simple sweet roll create a cascade of inflammation to make you sick?

Imagine spilling syrup on your keyboard and I hope this will make you think twice. When we consume simple carbohydrates such as sugar, blood sugar rises rapidly. In response, your pancreas secretes insulin whose primary purpose is to drive sugar into each cell where it is stored for energy. Once the cell is full and does not need glucose, it is rejected to avoid extra sugar gumming up the works. When your full cells reject the extra glucose, blood sugar rises producing more insulin and the glucose converts to stored fat.

What does all this have to do with inflammation? Blood sugar is controlled in a very narrow range. Extra sugar molecules attach to a variety of proteins that in turn injure the blood vessel wall. Via Glycation the repeated injury to the blood vessel wall sets off inflammation. When you spike your blood sugar level several times a day, every day, it is exactly like taking sandpaper to the inside of your delicate blood vessels.

Let's return to the sweet roll. That innocent looking goody not only contains sugars, it is baked in one of many omega-6 oils such as soybean. Chips and fries are soaked in soybean oil; processed foods are manufactured with omega-6 oils for longer shelf life. While omega-6's are essential -they are part of every cell membrane controlling what goes in and out of the cell – they must be in the correct balance with omega-3's.

If the balance shifts by consuming excessive omega-6, the cell membrane produces chemicals called cytokines that directly cause inflammation.

Today's mainstream American diet has produced an extreme imbalance of these two fats. The ratio of imbalance ranges from 15:1 to as high as 30:1 in favour of omega-6. That's a tremendous amount of cytokines causing inflammation. In today's food environment, a 3:1 ratio would be optimal and healthy.

There is no escaping the fact that the more we consume prepared and processed foods, the more we trip the inflammation switch little by little each day. The human body cannot process, nor was it designed to consume, foods packed with sugars and soaked in omega-6 oils.

There is but one answer to quieting inflammation, and that is returning to foods closer to their natural state. To build muscle, eat more protein. Choose carbohydrates that are very complex such as colourful fruits and vegetables. Cut down on or eliminate inflammation-causing omega-6 fats like corn and soybean oil and the processed foods that are made from them.

Animal fats contain less than 20% omega-6 and are much less likely to cause inflammation than the supposedly healthy oils labelled polyunsaturated. Forget the “science” that has been drummed into your head for decades. The science that saturated fat alone causes heart disease is a fad. The science that saturated fat raises blood cholesterol is also very weak. Since we now know that cholesterol is not the cause of heart disease, the concern about saturated fat is even more absurd today. Let’s agree mainstream medicine made a terrible mistake when it advised people to avoid saturated fat in favour of foods high in omega-6 fats. We now have an epidemic of arterial inflammation leading to heart disease and other silent killers.

The human gut contains more than 100 trillion bacteria, which help the body digest food, produce vitamins protect against disease-provoking bacteria in food, and stimulate the immune system. All these bacteria are separated from the rest of the body by the intestinal wall, which functions as a selective barrier aimed at allowing only useful substances to pass and be absorbed in the body. In addition, experiments in rats showed that administration of antibiotics, caused immense changes in the bacterial gut composition. The ill effects are rippled across to the intestinal flora, having a damaging effect, depending on the specific antibiotic.

Our makeup is resolved at the intestinal border – deciding what will enter the body – but if our intestines are inflamed - we are doomed as the ‘free radicals’ will cause havoc.

Silkworms can soothe your Inflammation

Now, thanks to an enzyme that allows silkworms to break out of their cocoons and fly, can now help you to be totally pain-free.

Serrapeptase was originally discovered in the digestive tract of the silkworm. Silkworms has a special enzyme called serrapeptase. The enzyme helps them to digest the tough mulberry leaves on which it thrives. Then about one month later, the silkworm spins a cocoon made of silk. Three weeks later the ‘worm’ is ready to emerge from its cocoon as a moth. In nature, serrapeptase is made by the bacteria which lives inside the intestines of the silkworms. Secreted in their saliva, the enzyme is attracted to the dead tissue of the cocoon, which it dissolves. The ability of the enzyme to chew through the silk cocoon demonstrates what a powerful enzyme serrapeptase is – especially when you consider that a silk thread is stronger than steel! Imagine a spider silk vest, capable of catching bullets.

As the enzyme chews through the silkworm's cocoon, serrapeptase is able to chew up and dissolve other non-living tissue - such as blood clots, cysts, arterial plaque, mucus, and the dead and damaged tissue debris that can promote inflammation. Thank you all done without harming the surrounding healthy tissue.

The bacteria responsible to produce this enzyme, has only recently been isolated, and their enzyme, serrapeptase is now commercially available to benefit us.

The enzyme appears to block chemicals that cause inflammation dissolving dead tissues, such as scar tissue, without affecting live tissue. In trials in Germany, the enzyme was tested on 66 patients with damaged ligaments. Half the group was given the enzyme, the others a placebo. The group receiving the enzyme healed almost twice as quickly. Swelling decreased by 50 per cent by the third day and there was a significant reduction in pain.

The enzyme also acts in a way to facilitate drainage of mucous from areas of damage or inflammation.'

The enzyme may also revolutionise treatment for heart attack and stroke patients by dissolving arterial plaque and life-threatening blood clots.

Japanese researchers have found it can completely dissolve plaque-like deposits in the arteries of animals - finding which could have radical implications for heart patients. By taking supplements of the enzyme, they could literally 'dissolve' their disease away.

By targeting and dissolving dead tissue, serrapeptase can eliminate varicose veins.

It could also help with arthritis and sports injuries where scar tissue around the joints irritates the nerves, causing chronic discomfort.

'Serrapeptase will help to dissolve any dead tissue, clotted material or mucous,'

In arthritis, it reduces inflammation around the joints. In asthmatics or people with chronic sinusitis, it will help drain mucous. It can even help with migraines if they are caused by inflammation.

Do we really need enzymes?

Millions of chemical reactions in our body are reliant on our enzymes, and their function is to speed up any chemical reaction in our body. Without the enzymes life will be too slow. Even though our body produces enzymes naturally, many believe that our natural enzyme production begins to decline after the age of 25. As we age, our body produces fewer enzymes, and eventually we become enzyme deficient. That is when many people begin to notice the effects of aging, including joint pain and circulatory problems, slower injury and wound healing, and increased internal inflammation and disease.

Benefits

- **Natural Anti-Inflammatory.**

They are the first line of defence against inflammation. ^{1,2,3} Inflammation is a reaction by the immune system to an irritation. Let's say you have an injured right knee. The immune system sensing the irritation the knee is undergoing creates a protein chain called a Circulating Immune Complex (CIC for short), tagged specifically for that right knee. The CIC floats down to the right knee and causes pain, redness and swelling due to the inflammation. This at first is a beneficial reaction; it warns us that a part of ourselves is hurt and needs attention. Aspirin, Ibuprofen and all the Non-Steroidal Anti Inflammatory Drugs work by keeping the body from making all CIC's. CIC's are vital to life, like those that maintain the lining of the intestine and those that keep the kidneys functioning! Thus NSAID are highly toxic to the liver, kidneys and many other organs. Systemic enzymes on the other hand are perfectly safe and free of dangerous side effects. They have no toxic dose. ⁴ Best of all systemic enzymes can tell the difference between the good CIC's and the bad ones because hydrolytic enzymes are lock and key mechanisms and their "teeth" will only fit over the bad CIC's. They are selective and do not eat their way into all the CIC's. When our immune system is overburdened with the production and removal of the CIC, they can build up, to be finally trapped in our tissues, leading to inflammation, pain, tissue damage and the organ becomes fibrotic and useless.

Slowly scientists realize that inflammation is associated with many common chronic diseases with aging, including atherosclerosis, diabetes, Alzheimer's disease and osteoporosis. Inflammation is also implicated in asthma, cirrhosis of the liver, some bowel disorders, psoriasis, meningitis, cystic fibrosis, and even cancer. ⁵ Two large studies demonstrated that the higher a person's C-reactive protein (CRP) level, the greater the risk of a heart attack or stroke. CRP is produced by the liver and is a clinical marker of general and also cardiac-related inflammation.

- **Fights Fibrosis.**

Enzymes eat scar tissue and fibrosis. ⁶ Fibrosis are caused by a hard, sticky protein called fibrin and they scar our tissues. Fibrosis will kill our organs and ultimately us. Let me explain. As we age, which starts at 27, we have a diminishing supply of enzymes. This is because we make a finite amount of enzymes in a lifetime and we use up a good deal of them by the time we are 27. At that point the body knows that if it keeps up that rate of consumption we'll run out of enzymes and be dead by the time we reach our 40's. Cystic Fibrosis patients who have virtually no enzyme production to speak of, and usually die earlier due to the excessive fibrotic formation. So as we age our enzyme production diminishes and the repair mechanism of our bodies goes out of balance, and it cannot reduce the

overabundance of fibrin. Fibrin is deposited wherever the skin organs or blood vessels are injured. That is when most women begin to develop fibrocystic breast disease, uterine fibroids, endometriosis, and arterial plaques. The fibrin moulds a spider inside our internal organs reducing their size and function over time. This is why as we age our wounds heal with thicker, less pliable, weaker and very visible scars. If we replace the lost enzymes we can control and reduce the amount of scar tissue and fibrosis our bodies have. Even old scar tissue can be 'eaten away' from surgical wounds, pulmonary fibrosis, kidney fibrosis and even keloids years after their formation. Medical doctors in Europe and Asia have known this and have used orally administered enzymes for these situations for over 40 years!

- **Blood Cleansing.**

The blood is the river of life, and it helps the organs to dispose all their garbage and dead material. Enzymes improve circulation by eating the excess fibrin that causes blood to sometimes get as thick as milkshake, creating the perfect environment for the formation of clots. All the garbage needs to be cleared by the liver on its 'first pass' but a toxic liver is too overburdened. So the sludge remains in the blood waiting until the liver has enough enzymes to clean the trash out of the blood. It can take several days, and in some cases, weeks! ⁷ With the extra boost of the enzymes, it helps the liver to clean the excess fibrin from the blood, making it more fluid like. The sludge in our blood do cause clots to develop and they are the leading causes of stroke and heart disease. ⁸ Don't use the enzymes if you are a haemophiliac or are on prescription blood thinners like Coumadin, Heparin and Plavix, without direct medical supervision. The enzymes cause the drugs to work better so there is the possibility of thinning the blood too much.

- **Immune System Modulating.**

When the immune system is running low we become susceptible to infectious disease, and once it is overburdened, then the system creates antibodies that attack its own tissues. That is the start of auto immune diseases like MS, Rheumatoid Arthritis, and Lupus. The enzymes will tone down immune function and eat away at the antibodies the immune system is making to attack our bodies own tissue.

- **Targets Viruses.**

Viruses harm us by replicating in our bodies. To do this a virus must bond itself to the DNA in our cells through the medium of its exterior protein cell wall. Once it does, the cell is deemed useless and if too many cells in your body succumb, then we die. Anything that disrupts that cell wall inhibits the ability of viral replication by rendering individual viruses inert. ^{9,10} Systemic enzymes can tell the difference between the proteins that are supposed to be in your body and those who are foreign to your body. Again through the enzyme lock and key mechanism.

There are currently over 200 peer reviewed research articles dealing with the absorption, utilization and therapeutic action of orally administered systemic enzymes. Systemic enzymes are used for 40 years plus it has a history of widespread medical use in central Europe and Japan.

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