

Hydrogen Gas

It seems as if hydrogen gas “H₂” has suddenly appeared out of nowhere. In Japan the sales of H₂ products have grown from zero to over one billion dollars annually since 2010. The industry is still in its infancy in Japan and about zero in the United Kingdom. The fact that you are reading this article makes you an early adopter of H₂ in the UK. Prior to 2015, the only people in the UK who knew about H₂ were scientists. Legitimate claims are made backed by scientific studies which is not true of most supplements available on the market. I have been a doctor for nearly 40 years, and nothing tickles me more than the simplicity of H₂. In a nutshell.

- H₂ neutralizes/reduces the most harmful free radical (OH radical), converting it to water. By reducing the hydroxyl radical, H₂ effectively reduces oxidative stress. It is the master antioxidant.
- H₂ effectively reduces inflammation which is associated with many diseases as well as aching body parts
- H₂ doesn't neutralize other useful and necessary free radicals which may not be the case for other antioxidants
- H₂ is the smallest molecule to be effective in areas that other much larger antioxidants and supplements will never reach. It will slice through bones as if they didn't exist.
- H₂ helps your body naturally produce other antioxidants such as glutathione
- H₂ helps athletes in numerous ways including reducing lactate (lactic acid) production. H₂ 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, lessening the oxidative load on the body.
- Molecular hydrogen leaves no waste product after neutralizing a free radical (as the by-product is water) unlike other antioxidants that must either be neutralized themselves after donating their electrons to free radicals or must be removed entirely from the body
- Molecular hydrogen also appears to act as a signalling molecule, thereby providing many other benefits
- Molecular hydrogen is easily consumed with no additional calories
- Molecular hydrogen has no known adverse toxic effects and there has been no evidence found that you can take too much H₂.
- It is a mood lifter. People feel euphoric and there is definitely a mental component.

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 it the number 1 on your periodic table – yes the available Hydrogen. That highly active H₂ makes the difference.

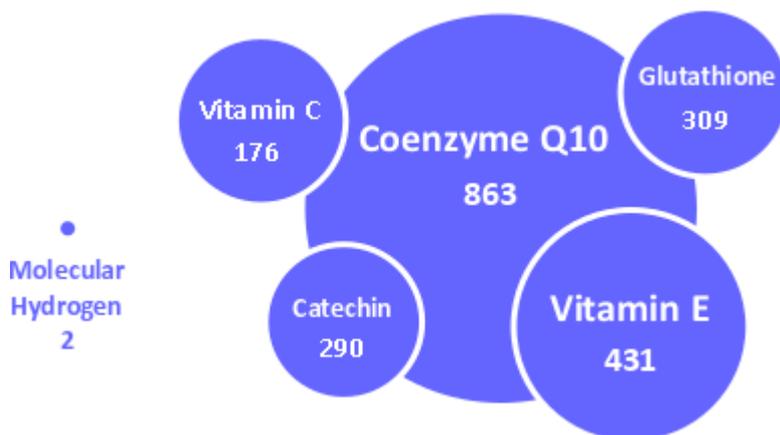
What is a free radical?

Free radicals ricochet through our body and kill your healthy cells. If they are not neutralised quickly, they cause oxidative stress and your cells and DNA are vulnerable. The damaging oxygen is also known as Reactive Oxygen Species, (ROS) the leading cause of all diseases such as cancer, stroke, rheumatism, high-blood pressure, aging, arteriosclerosis, etc. Hydrogen is the master antioxidant scavenging the most damaging radicals of all. Hydrogen targets the hydroxyl radical, (OH⁻) the strongest of all the radicals with the peroxynitrite. (ONOO) Once they are tackled, then your body can concentrate on other important health issues as auto-immune disease.

HEALTH PROBLEMS that may be beneficially affected by hydrogen therapy include, to name a few, atherosclerosis, ischemia-reperfusion injury (as 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). Less Radiation the Demon of our modern living. The damages caused by radiation is largely due to the hydroxyl (OH⁻) radical. 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.'

We are like a vehicle not running efficiently. We can boost our energy supplies by giving it Hydrogen. Most antioxidant supplements will not prevent the diseases we fear most, as the molecules are too big. It has limited therapeutic success and they are not selectively absorbed 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.

Hydrogen gas inhalation

The gas is colourless, odourless, ¹ tasteless and is flammable at temperature higher than 527°C and safe if H₂ concentration levels remains lower than 4.6%. H₂ gas needs to be inhaled once it is produced. It has no cytotoxicity, even at high concentration.² Furthermore, safety standards have been established for high concentrations of H₂ gas for inhalation since high pressure hydrogen gas is used in deep diving gas mixes to prevent decompression sickness and arterial gas thrombi.²

When we study the different methods of H₂ applications, ^{http://www.nature.com/articles/srep05485/figures/5} then 4% H₂ gas 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 is 1.6 PPM, and most are in the region of 0,6 PPM – even the very expensive Kangen machine. H₂ Blue Hydrogen Test Kit measures the real amount of hydrogen in the water, to embarrass many companies.

<https://www.youtube.com/watch?v=BjcWZ5ebAh8>

Hydrogen Water

Hydrogen dissolves in water and rapidly it will penetrate glass while aluminium will retain the hydrogen gas for a longer period of time. H₂ water is portable and administered easily.⁴

- 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. Beware of alkaline water systems like Kangen. There appears to be a short-term benefit, but in the long run it can lead to a decline in health. This type of water seems to be especially harmful to the heart cells. The problem with alkalized water is that it's missing the alkaline minerals. Sodium or potassium hydroxide (NaOH or KOH) is used to alkalize the water, and this create a large amount of hydroxyl ions. (OH)

-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 H₂.

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 H₂.⁶

- Another method is to simply drop a tablet in a bottle full of water, or swallow a capsule to release the H₂.

Eye drops.

Glaucoma of the eye is 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

BROWN'S GAS

When we separate distilled water via electrolysis, then HHO or Browns 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 Browns 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 Browns 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, with the added benefit of oxygen.

Muscle Relaxation; Pain Relief.

When Brown's Gas is applied to the skin, hydrogen and oxygen are absorbed locally. 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.

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