

Everything you need to know about Hydron and hydrogenated water

Which are the beneficial effects from drinking hydrogen-rich water?
It acts as an antioxidant by counteracting the effects from free radicals.

How much water should we drink every day?
Healthy people should drink within 1 and 3 litres per day. It is recommended to drink it on an empty stomach and between meals.

Is it suitable for cooking?
It can be used without any problem, but when heated it quickly loses the hydrogen and all its antioxidant effects, therefore it makes no sense.

Can we take hydrogen in excess?
Hydrogen evaporates over time and is expelled through the airway.

Can I use Hydron to hydrogenate any water?
No, it must be of a very low mineralisation or come from a reverse osmosis.

Can I use Hydron to hydrogenate milk, juices or other liquids?
No, the equipment would break down.

Can I hydrogenate cold water?
Yes, it actually improves hydrogen solubility

Can I store hydrogenated water in the fridge?
Yes, inside a stainless steel thermos flask, by filling all the available volume and without leaving any air chamber inside. Do not use any other type of containers, since hydrogen would get lost.

Does hydrogenated water taste different?
No, the taste and the odour remain the same.

Is Hydron a water purifier?
No, therefore we must use water suitable for human consumption with a very low mineralisation.

How long does it take for hydrogen to evaporate from hydrogenated water?
Within 1 and 2 hours in an open container. If stored in the fridge, inside a stainless thermos flask without any air chamber, it will last for several days.

Is there any contraindication to its consumption?
There is no contraindication to the consumption of hydrogenated water.

Can hydrogen replace other antioxidants?
It is recommended to supplement the antioxidant effects of hydrogen with a balanced Mediterranean diet.

Is hydrogen safe?
It is considered a food additive in the EU and it has been approved by the FDA. Our organism produces hydrogen from fibre in the intestine and, since 1945, it has been used in high concentrations without any problems for professional diving.

When were its benefits discovered for the first time?
Some records from 1798 have proved its anti-inflammatory effects.



Personalised bottle for your Hydron.



Quality Assurance



Thanks to its design, Hydron has been awarded with numerous prizes at international exhibitions.



Silver medal at the Geneva International Inventions Exhibition 2015.



Bronze medal at the Seoul International Inventions Exhibition 2015.

Hydron has been designed to take up as little space as possible in the kitchen. It offers several installation possibilities for you to choose the one that best suits your needs.

A) Work surface top installation:
Two options available:

A.1. Hydron can be installed on the work surface of your kitchen by connecting it to a high quality water network or a reverse osmosis equipment.

A.2. It can also be installed with an electrical connection and a hydraulic supply by using a 3-litre glass bottle. This water may be osmosis water or bottled water with a very low mineralisation, meaning you will always have access to hydrogen-rich water (hydrogenated water) whenever you want it.

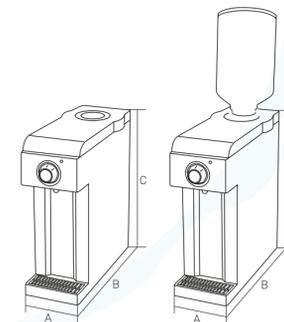
(*) For this second type of installation (A.2.), you must purchase the bottle kit model (bottom right picture).

B) Below work surface installation:
Hydron + reverse osmosis in your 1, 2, 3 or 4-way tap. Meaning you will have access to hydrogen-rich, osmosis hot and cold water according to the tap installed.

Technical Specifications

Dimensions (A x B x C): 148 mm x 360 mm x 360 mm
Weight (in kg): 4,5 kg (empty)
Power supply: DC 24 V / 5 A
Working pressure (min. – max.): 1 bar – 5 bar
Working temperature (min. – max.): 5°C – 35 °C
TDS (min. – max.): 10 ppm– 150 ppm
Hardness (max.): < 5°HF
Chlorine: chlorine-free.

* Common features in all models.



Cert. # TW0010484

The quality system of Puricom Water Industrial Corporation for designing and manufacturing of water purifier and water dispenser is certified and fulfils the requirements of the norm UNE-ISO-9001.



Puricom Europe belong to Aqua Spain's group, member of Aqua Europe (European national associations federation)



Cert. # CS006146

The quality system of Ionfilter (B-60328279) for the marketing and assembling of the water treatment equipments is certified and fulfils the requirements of the norm UNE-ISO-9001.

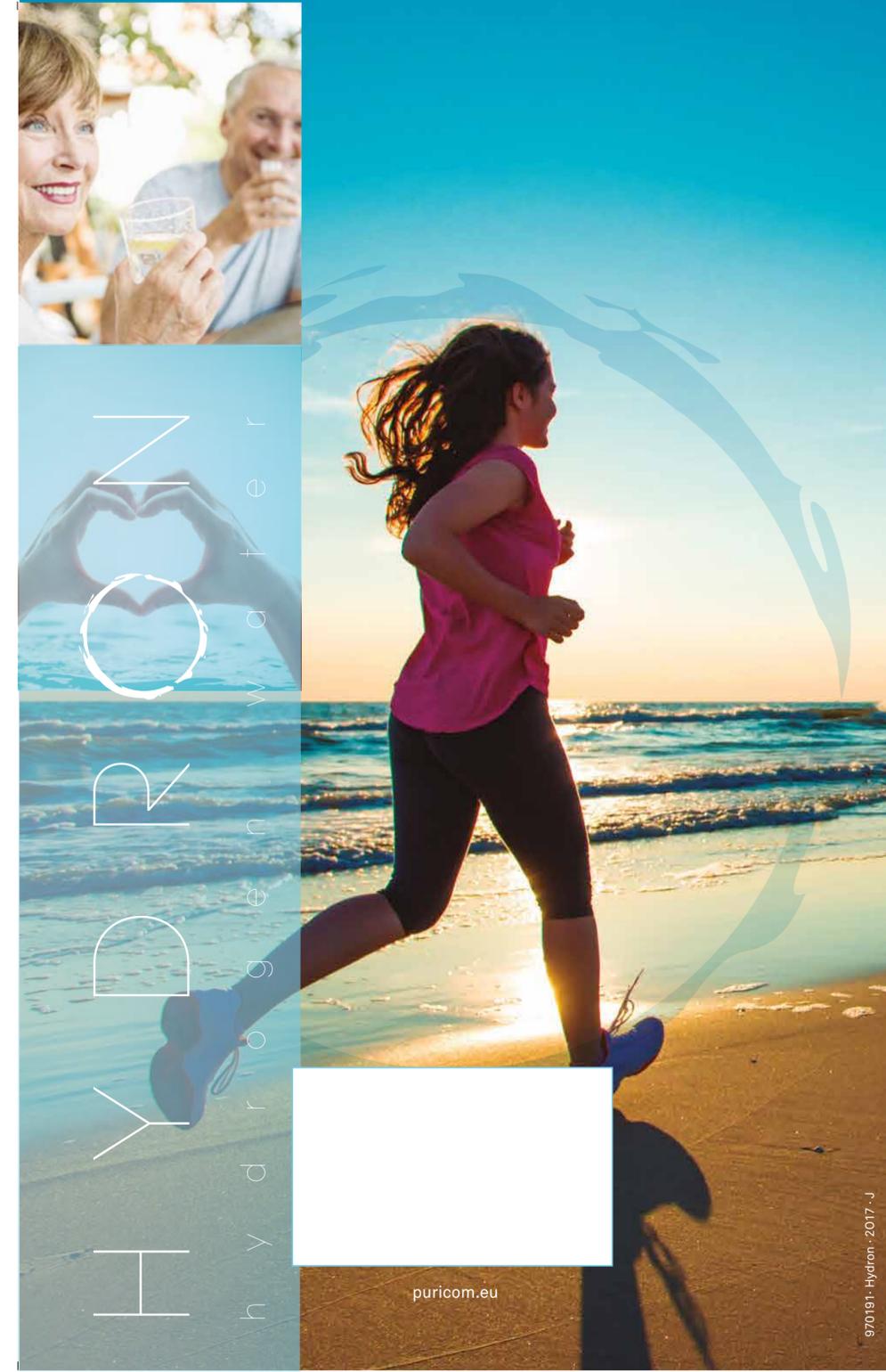


Puricom Water Industrial Corporation and Ionfilter (B-60328279) are members of Water Quality Association.

HYDRON

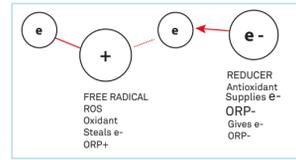
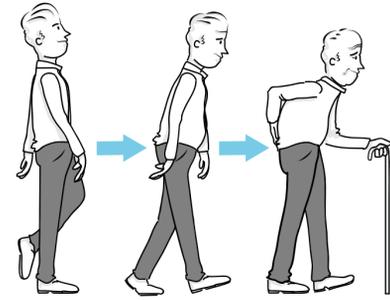
hydrogen water

The hydrogenated water revolution

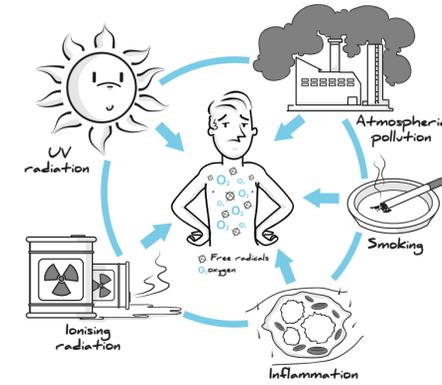


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What are free radicals?



Just by living our bodies oxidise. Scientists have found that the oxygen which acts in our metabolism generates free radicals. They are molecules which lack electrons and so, they steal them from other molecules causing damages in different cellular structures such as DNA.

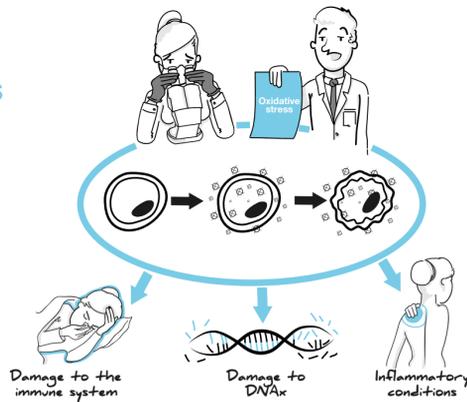


Why do they occur?

- Smoking.
- Atmospheric pollution.
- Inflammation.
- UV radiation.
- Ionising radiation.

Which cellular damages may they trigger?

- DNA damages (genetic).
- Damage to the immune system.
- Premature ageing.
- Inflammatory conditions.
- Other various illnesses



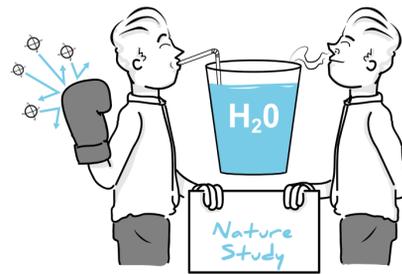
Oxidative stress

- CAUSES
- Own metabolism.
 - Intense sport.
 - Air pollution.
 - Type of diet.
 - Ultraviolet radiation.
 - Ionising radiation.
 - Others.

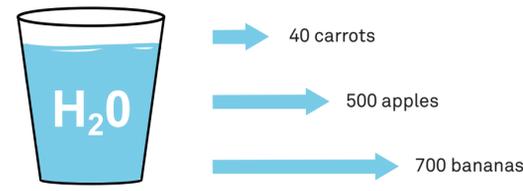
- CONSEQUENCES
- Possible non-hereditary genetic damage.
 - Possible damage to the immune system.
 - Inflammation.
 - Premature ageing.
 - Others.

According to numerous studies, consuming hydrogenated water helps improve more than 175 conditions:

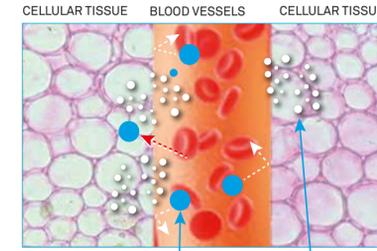
- Wrinkles.
- Cystitis.
- Allergies of type 1.
- Fibrogenesis.
- Combats endotoxins.
- Helps in recovery after smoke inhalation.
- Regulates and normalises the parameters of metabolic syndromes.
- Helps in hyperlexia.
- Peridontitis.
- Gastric ulcer.
- Ulcerative colitis.
- Erectile dysfunction.
- Osteoporosis.
- Muscle fatigue.
- Metabolic acidosis.
- Asthma.
- Neonatal hypoxia.
- Carbon monoxide poisoning.
- Extension of the lifespan.
- Sperm mobility.
- Fibromyalgia.



The antioxidant power of 1.5 L of hydrogenated water is equivalent to consuming:

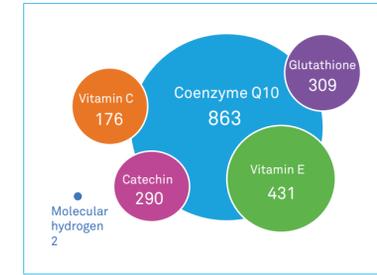
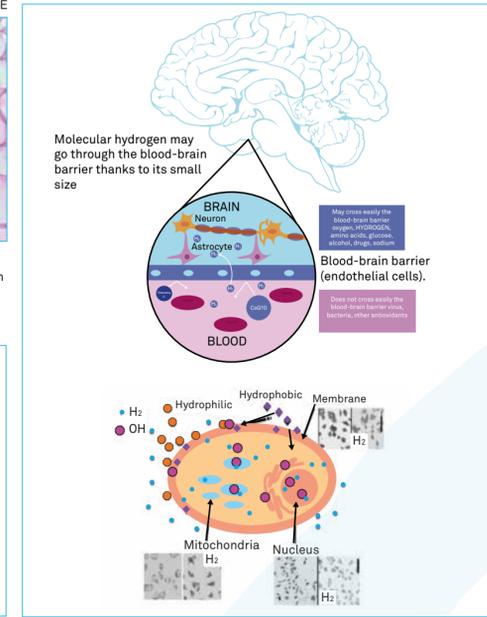


How is hydrogen absorbed by the human body?



OTHER ANTIOXIDANTS. (They cannot go through and reach easily the tissues).

HYDROGEN. It does easily reach the tissues



Study published in Nature

Hydrogen acts as a **therapeutic antioxidant** by selectively reducing cytotoxic oxygen radicals. Ikuro Oshawa et al.

Acute oxidative stress induced by ischemia-reperfusion or inflammation causes serious damage to tissues, and persistent oxidative stress is accepted as one of the causes of many common diseases including cancer.

We show here that hydrogen has potential as an antioxidant in preventive and therapeutic applications. We induced acute oxidative stress in cultured cells by three independent methods. **Hydrogen selectively reduced the hydroxyl radical, the most cytotoxic of reactive oxygen species (ROS), and effectively protected cells; however, hydrogen did not react with other ROS, which possess physiological roles. We used an acute rat model in which oxidative stress damage was induced in the brain by focal ischemia and reperfusion.**

The inhalation of H₂ gas markedly suppressed brain injury by buffering the effects of oxidative stress. Thus H₂ can be used as an effective antioxidant therapy; owing to its ability to rapidly diffuse across membranes, it can reach and react with cytotoxic ROS and thus protect against oxidative damage.

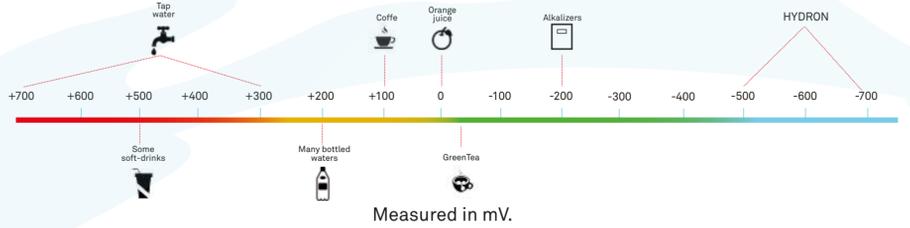
Some studies about hydrogen

- Hydrogen in drinking water **reduces dopaminergic neuronal loss** in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. Authors: Various. Edited at Cambridge University.
- Hydrogen-rich saline improves memory function in a rat model of amyloid- β -induced **Alzheimer's disease** by reduction of oxidative stress. Authors: Li, Wang, Zhang, Cai, Cao, Sun. Published in Elsevier Brain Research, 2010.
- Molecular hydrogen as an emerging therapeutic medical gas for **neurodegenerative** and other diseases. Authors: Ohta, Ito, Ichihara, Masafumi Ito. Published: Hindawi Publishing Corporation Oxidative Published in Medicine Anocelular Longevity, 2012.
- Consumption of hydrogen water **prevents atherosclerosis** in apolipoprotein E, knockout mice. Authors: Ohsawa, Nishimaki, Yamagata et al. Published in Elsevier, 2008.
- Hydrogen-rich water **protects against acetaminophen-induced hepatotoxicity** in mice. Authors: Zhang, Dong Song, Pang et al. Published in World Journal of Gastroenterology, 2015.
- Consumption of hydrogen water reduces paraquat-induced acute **lung injury** in rats. Authors: Liu, Liu, Sun, Liu et al. Published in Hindawi Publishing Corporation, 2011.
- Protection of the retina by rapid diffusion of hydrogen: administration of hydrogen-loaded eye drops. Authors: Oharazawa, Igarashi, Yokota et al.
- Hydrogen **protects vestibular hair cells** from free radicals. Authors: Kikkawa, Nakagawa, Horie, Ito. Published in Auditory and Vestibular Systems, 2009.
- Hydrogen-rich warm water **represses wrinkle formation** against UVA rays together with type-I collagen production and oxidative stress diminishment in fibroblasts and cell-injury prevention in keratinocytes. Authors: Kato, Saitoh, Iwai et al. Published in Journal of Photochemistry and Photobiology, 2011.
- Hydrogen-rich water **improves psoriasis-associated arthritis** and skin lesions by treatment with molecular hydrogen: A report of three cases. Authors: Ishibashi, Ichikawa, Sato et al. Published in Molecular Medicine Report, 2015.
- Hydrogen-rich water **decreases serum LDL-cholesterol levels** and improves HDL function in patients with potential metabolic syndrome. Authors: Song, Li, Sang et al. Published: JLR Papers, 2013.
- Extension of the lifespan of Caenorhabditis elegans by the use of electrolyzed reduced water. Authors: Xan, Tian et al. Published: ISBA, Biosci. Biotech. Biochem, 2010.
- Anti-diabetic effects of electrolyzed reduced** water in streptozotocin-induced and genetic diabetic mice. Authors: Kim HJ, Kim HK. Published: glowing-health.com
- Consumption of water containing a high concentration of molecular hydrogen reduces oxidative stress and disease activity in **patients with rheumatoid arthritis**: a pilot study. Authors: Ishibashi, Rikitake et al. Published: Medical Gas Research, 2012.

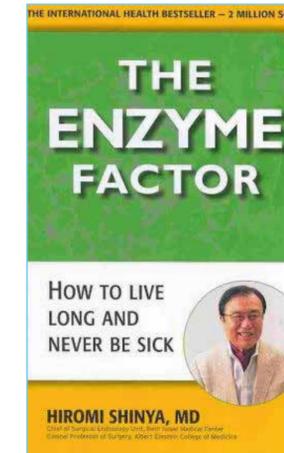
Hydrogen measurement



ORP scale of various products:



Popularisation in the media



"Good Water" means water with antioxidant properties. There are purification devices that ionise and create this type of (antioxidant) water through electrolysis [...]. When electrolysis occurs, active hydrogen is also produced, serving to remove excess free radicals from the body. Source: "The Enzyme Factor" by Hiromi Shinya.



Antioxidant effects of reduced water produced by electrolysis and with hydrogen. The use of antioxidants to prevent damages related to oxidative stress is of great importance. It has been shown that reduced water produced by electrolysis reduces oxidative stress and the damages related to a number of different experimental pathologies in patients undergoing haemodialysis. Further information in <http://www.journals.unam.mx>



Oxidative damage is defined as the bimolecular damage caused by the attack of reactive species upon the constituents of living organisms. This damage is associated to many degenerative diseases such as Alzheimer, cancer, diabetes, atherosclerosis and many others. In this context the use of antioxidants to prevent the damage induced by oxidative stress is of great importance. Source: <http://aguahidrogenada1.blogspot.com.es>



Clinical Effects of Hydrogen Administration. Molecular hydrogen has proven useful and convenient as an antioxidant and modifier of gene expression in many conditions where oxidative stress and changes in gene expression result in cellular damage. Source: http://acceso.sivweb.es/content/978795/hydrogen_efectos_clinicos.pdf