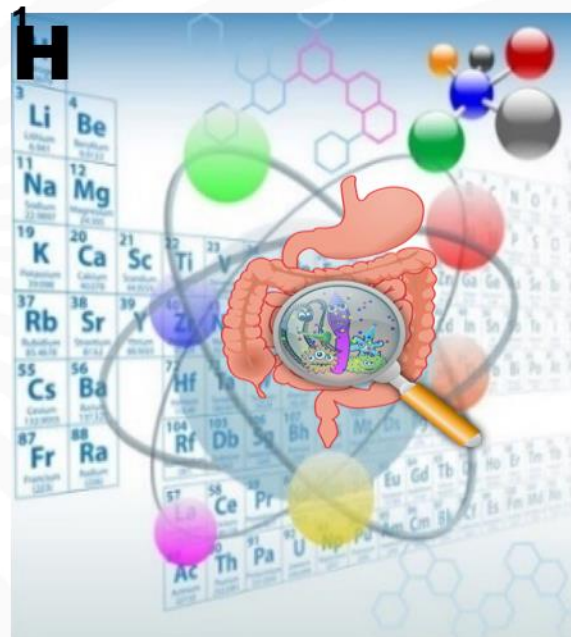




THE FASTING PODCAST **WOW**: EPISODE 86 – The Hydrogen-Gut Connection

EPISODE 86: THE HYDROGEN-GUT CONNECTION

The Fasting Podcast **WOW** (Wellness & Optimal Weight)



Host: Julie Phillips, CNHP



Hydrogen Within the Body

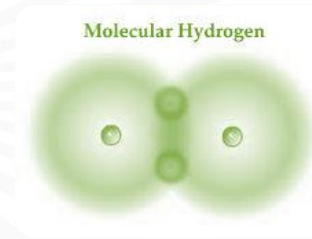
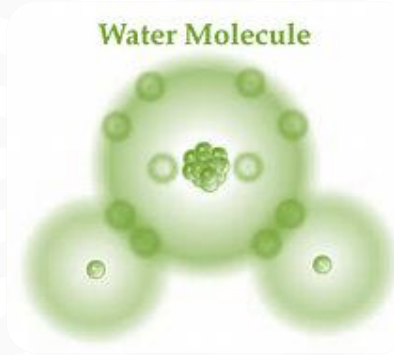
- ❶ Hydrogen is #1 in the periodic table of elements – the smallest and everything builds on it
- ❶ About 90% of all atoms in the universe are considered to be hydrogen
- ❶ Hydrogen is used to make ATP energy in the mitochondria cellular batteries
- ❶ Hydrogen is used to transport nutrients and eliminate toxins
- ❶ Hydrogen is crucial to life – part of all living organisms
- ❶ We have 2 major ways to naturally create hydrogen in the body
 1. Good protein digestion
 2. Plentiful probiotic doing their thing in plentiful fiber – healthy gut





A Common Misconception: Is H₂ Already in All H₂O?

- H₂O (water) is not the same as H₂ (molecular hydrogen)

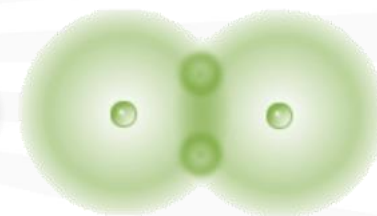


- Science: www.MolecularHydrogenFoundation.org: H₂ helps with 170+ human diseases per 700+ studies (e.g. diabetes, Alzheimer's, Parkinson's, dementia, osteoporosis, hypertension, chronic inflammation...)



H₂ = Molecular Hydrogen = Diatomic Hydrogen

- Powerful “selective” and primordial antioxidant, neutral, no charge.
- Combines with Hydroxyl Radicals (most cytotoxic – OH) to create water molecules (H₂O).
- Contributes to homeostasis (balance) in the body.
- Stimulates Ghrelin production (Autism, Parkinson’s, Alzheimer’s)
- Radiation Protection. (NASA study 2015)
- HGH & Glutathione production naturally.
- Stimulates Mitochondria to function when not functioning.
- Helps reduce chronic inflammation and aids obesity.
- H₂ is a gas – may be injected, inhaled, dissolved in water...





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H₂ – The Secret in “Healing Waters”




Pure H₂ Water is Anti-Aging: Dehydration, Toxicity, Free Radicals, & Inflammation!



Studies – Therapeutic Antioxidant

nature
medicine

Hydrogen acts as a therapeutic antioxidant by selectively reducing cytotoxic oxygen radicals



Ikuroh Ohsawa¹, Masahiro Ishikawa¹, Kumiko Takahashi¹, Megumi Watanabe^{1,2}, Kiyomi Nishimaki¹, Kumi Yamagata¹, Ken-ichiro Katsura², Yasuo Katayama², Sadamitsu Asoh¹ & Shigeo Ohta¹

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 (H₂) has potential as an antioxidant in preventive and therapeutic applications. We induced acute oxidative stress in cultured cells by three independent methods. H₂ selectively reduced the hydroxyl radical, the most cytotoxic of reactive oxygen species (ROS), and effectively protected cells; however, H₂ 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.



Studies – Type 2 Diabetes (4 of 6 – 75% Normalized IGT Scores)

[Nutr Res.](#) 2008 Mar;28(3):137-43. doi: 10.1016/j.nutres.2008.01.008.

Supplementation of hydrogen-rich water improves lipid and glucose metabolism in patients with type 2 diabetes or impaired glucose tolerance.

[Kajiyama S¹](#), [Hasegawa G](#), [Asano M](#), [Hosoda H](#), [Fukui M](#), [Nakamura N](#), [Kitawaki J](#), [Imai S](#), [Nakano K](#), [Ohta M](#), [Adachi T](#), [Obayashi H](#), [Yoshikawa T](#).

⊕ Author information

Abstract

Oxidative stress is recognized widely as being associated with various disorders including diabetes, hypertension, and atherosclerosis. It is well established that hydrogen has a reducing action. We therefore investigated the effects of hydrogen-rich water intake on lipid and glucose metabolism in patients with either type 2 diabetes mellitus (T2DM) or impaired glucose tolerance (IGT). We performed a randomized, double-blind, placebo-controlled, crossover study in 30 patients with T2DM controlled by diet and exercise therapy and 6 patients with IGT. The patients consumed either 900 mL/d of hydrogen-rich pure water or 900 mL of placebo pure water for 8 weeks, with a 12-week washout period. Several biomarkers of oxidative stress, insulin resistance, and glucose metabolism, assessed by an oral glucose tolerance test, were evaluated at baseline and at 8 weeks. Intake of hydrogen-rich water was associated with significant decreases in the levels of modified low-density lipoprotein (LDL) cholesterol (ie, modifications that increase the net negative charge of LDL), small dense LDL, and urinary 8-isoprostanes by 15.5% ($P < .01$), 5.7% ($P < .05$), and 6.6% ($P < .05$), respectively. Hydrogen-rich water intake was also associated with a trend of decreased serum concentrations of oxidized LDL and free fatty acids, and increased plasma levels of adiponectin and extracellular-superoxide dismutase. In 4 of 6 patients with IGT, intake of hydrogen-rich water normalized the oral glucose tolerance test. In conclusion, these results suggest that supplementation with hydrogen-rich water may have a beneficial role in prevention of T2DM and insulin resistance.

PMID: 19083400 [PubMed - indexed for MEDLINE]





Studies – Anti-Inflammatory

[Free Radic Res.](#) 2010 Sep;44(9):971-82. doi: 10.3109/10715762.2010.500328.

Recent advances in hydrogen research as a therapeutic medical gas.

Huang CS¹, Kawamura T, Toyoda Y, Nakao A.

+ Author information

Abstract



Recent basic and clinical research has revealed that hydrogen is an important physiological regulatory factor with antioxidant, anti-inflammatory and anti-apoptotic protective effects on cells and organs. Therapeutic hydrogen has been applied by different delivery methods including straightforward inhalation, drinking hydrogen dissolved in water and injection with hydrogen-saturated saline. This review summarizes currently available data regarding the protective role of hydrogen, provides an outline of recent advances in research on the use of hydrogen as a therapeutic medical gas in diverse models of disease and discusses the feasibility of hydrogen as a therapeutic strategy. It is not an overstatement to say that hydrogen's impact on therapeutic and preventive medicine could be enormous in the future.



PMID: 20815764 [PubMed - indexed for MEDLINE]



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2 of 4 CAUSES OF PREMATURE AGING HELPED BY H₂



1) Dehydration: body $\frac{3}{4}$ water, USA $\frac{3}{4}$ dehydrated



2) Toxicity: pesticides, preservatives, pollution...



3) "Selective" Free Radicals: aka oxidative stress



4) Inflammation: "the silent killer"



Convenient Ways to Get More Hydrogen

- Improve protein digestion including just saying NO to heartburn – enzymes are a plus
- Plentiful probiotics and plentiful fiber – brings enormous benefits beyond hydrogen production
- If an ionizer is considered, ensure high filtration and focus on H₂, not the pH with neutral pH ideal (only purifying and H₂, not altering source pH)
- Consider tablets or drops as an option containing elemental magnesium convenient for travel and to test to see if merely adding hydrogen can cause something like heartburn to disappear





Possible Next Steps

- ✓ Focus on great digestion, no heartburn/reflux, plentiful probiotics doing their thing in plentiful fiber!
- ✓ For access to superior H₂ water machine, H₂ tablets & H₂ drops at a discount in the cart www.WOWH2Water.com
- ✓ For questions or suggestions contact Julie@JPWOWPrograms.com
- ✓ **PLEASE Refer others** & check out our website that includes the slides for each episode, our favorite WOW natural products, a blog & the new WOW Lifeboat Freedom video system for income from the WOW natural products www.JPWOWPrograms.com



Stay Positive, Focused, & Determined Because Where the Mind Goes, **Energy Flows...** *Ernest Holmes*

