

Molecular H2 Effervescent Hydrogen Tablets

Molecular H2 creates a high level of hydrogen (H_2) when added to non-carbonated water, powerfully supporting antioxidant activity and redox balance.* H_2 is a small, neutrally-charged, nonreactive, and nonpolar molecule, which enables it to readily pass through cellular membranes and the blood-brain barrier to deliver antioxidant protection to the body systemically.*

Key Features

- Clinically shown to protect against damage from radiation, improving appetite, taste, and quality of life*
- Promotes healthy metabolic function and balances the immune and stress response in human studies*
- Effectively neutralizes hydroxyl radicals (•OH) in the cytosol and nucleus of the cell*
- Activates the Nrf2-pathway, a mediator of cellular detoxification and antioxidant transcription*
- Reduces excessive immune response to LPS (lipopolysaccharide)*
- When used as directed, Molecular H2 is capable of producing supersaturated hydrogen-rich water



SKU #77520 60 tablets





Molecular H2

Therapeutic use of molecular $\rm H_2$ dates back to the 1940's when it was used for the prevention of decompression sickness in divers. However, as a highly flammable gas at a concentration of greater than 4% in air, its use wasn't particularly feasible until research, published in 2007, showed that a gas containing $\rm H_2$ at a concentration below this threshold and an $\rm H_2$ -saturated nutrient solution also were able to deliver effective amounts of $\rm H_2$.

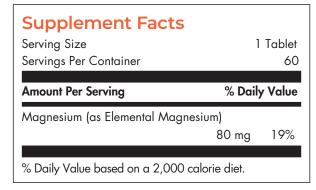
Research has shown that $\rm H_2$ may be of benefit in a wide variety of clinical settings due to its size, and its nonreactive and nonpolar properties – which enable it to traverse cellular and blood-tissue barriers with ease.* Its benefits also lie in the fact that it neutralizes strong oxidants such as 'OH and is nonreactive with other biologically important oxidants like hydrogen peroxide and nitric oxide.* Additionally, it activates antioxidant and detoxification-related protein transcription via the Nrf2-pathway, reduces the damaging immune response to LPS, and modulates cellular signal transduction, protein activity, and genetic transcription.* Some of the effects of $\rm H_2$ have been demonstrated to persist long after it is no longer present in circulation.

Cellular, animal, and human studies have shown that $\rm H_2$ acts as a neuroprotectant.* $\rm H_2$ has been shown to reduce dopaminergic neuron loss; improve cognition, memory, and brain function; and protect against the cellular damage associated with impact or ischemia/reperfusion injury.* It also helps balance the response to stress, improving mood, learning, and resilience in stressful settings.*

Numerous animal models have demonstrated $\rm H_2$ helps protect against cellular and organ damage associated with radiation, the majority of which is mediated by the 'OH radical.' Pretreatment with $\rm H_2$ has been shown to help protect against lymphocyte, enterocyte, cardiomyocyte, and germ cell damage associated with radiation treatment.' Humans supplemented with $\rm H_2$ -rich water during radiation therapy had an improved quality of life, appetite, taste, and antioxidant status compared to those receiving placebo water while the therapeutic response to radiation was unaffected.'

The antioxidant and related actions of H_2 also have shown to help balance the immune response. In humans, supplementation with H_2 has been shown to improve joint and skin symptoms associated with immune dysfunction, with some of the effects persisting up to a month after supplementation ceased.

Human and animal studies also show that molecular $\rm H_2$ may improve aspects of metabolic dysfunction.* Clinical studies have shown that consumption of $\rm H_2$ -rich water supports normal cholesterol metabolism and glucose tolerance, as well as healthy levels of hepatic fat content.*



Other ingredients: Proprietary Hydrogen Matrix (malic acid, dextrose, tartaric acid, adipic acid, sodium stearyl fumarate).

Suggested Use: As a dietary supplement, drop I tablet in 12-16 oz. of filtered water, wait for it to break down, gently stirring if desired, then drink immediately. Take one or two times daily, or as directed by a healthcare practitioner.



References:

Kang KM, et al. Med Gas Res. 2011 Jun 7;1(1):11. Kajiyama S, et al. Nutr Res. 2008 Mar;28(3):137-43. Ishibashi T, et al. Med Gas Res. 2012 Oct 2;2(1):27. Ishibashi T, et al. Mol Med Rep. 2015 Aug;12(2):2757-64. Mizuno K, et al. Med Gas Res. 2018 Jan 22;7(4):247-55. Ohsawa I, et al. Nat Med. 2007 Jun;13(6):688-94. Xie K, et al. Brit J Anaesthesia. 2012;108(3):538-9. Ren JD, et al. Biochim Biophys Acta. 2016 Jan;1863(1):50-5. Bjurstedt H, Severin G. The Military Surgeon (United States). 1948 Aug 1;103(2):107-16. Ohta S. Methods Enzymol. 2015;555:289-317. Ishibashi T, et al. Int Immunopharmacol. 2014 Aug;21(2):468-73. Ichihara M, et al. Med Gas Res. 2015 Oct 19;5:12. Ge L, et al. Oncotarget. 2017 Sep 21;8(60):102653-73. Fujita K, et al. PLoS One. 2009 Sep 30;4(9):e7247. Yoritaka A, et al. Mov Disord. 2013 Jun;28(6):836-9. Li J, et al. Brain Res. 2010:152-61. Nagata K, et al. Neuropsychopharmacology. 2009;34:501-8. Ji X, et al. J Surg Res. 2012;178:e9-16. Cai J, et al. Brain Res. 2009 Feb 23;1256:129-37. Gao Q, et al. Sci Rep. 2017 Aug 29;7(1):9625. Korovljev D, et al. Clin Res Hepatol Gastroenterol. 2019 Apr 11.