



*Recharge
Rejuvenate
Revitalise*

Weight Loss & Hydrogen Therapy

Molecular hydrogen (H₂) therapy has gained attention for its potential role in promoting weight loss, largely due to its antioxidant and anti-inflammatory properties. Here's a summary of the relevant research and mechanisms by which Molecular Hydrogen may support healthy weight loss:

Impact on Hunger Hormones:

Hydrogen water influences the hormone ghrelin, helping regulate appetite by ensuring appropriate spikes when hungry and drops after eating. This regulation can help prevent constant low-level hunger and overeating.

A 2025 study by Grepl et al showed that Hydrogen inhalation appears to increase fat burning at rest, meaning the body uses a higher proportion of fat for energy.

Another 2025 study, by Todorović, et al, demonstrated that eight weeks of drinking Hydrogen-rich water daily, caused improved appetite regulation, sleep quality, and GLP-1 levels versus placebo, with no serious adverse events.

Regulation of Glucose and Insulin:

Hydrogen Therapy has been shown to improve insulin sensitivity and regulate glucose metabolism. Studies indicate that Molecular Hydrogen can lower blood glucose levels and improve insulin resistance; crucial for preventing weight gain and managing conditions such as Metabolic Syndrome and Diabetes.

Antioxidant Properties:

Molecular Hydrogen acts as a selective antioxidant, targeting harmful reactive oxygen species (ROS) without affecting beneficial ROS. This selective reduction of oxidative stress can improve overall metabolic function and reduce inflammation, which are key factors in weight management.

Reduction of Liver Fat:

Research has shown that Molecular Hydrogen can reduce liver fat, which is particularly beneficial for individuals with non-alcoholic fatty liver disease (NAFLD). Reducing liver fat contributes to better metabolic health and weight management.



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Improvement in Metabolic Syndrome Bio-markers:

A study involving subjects with Metabolic Syndrome who consumed Hydrogen-rich water for 24 weeks showed improvements in several metabolic parameters, including reductions in body fat and waist circumference. Also lowering of cholesterol levels and blood glucose. This indicates a direct benefit in weight management and metabolic health.

Ready to buy your own Hydrogen Water Bottle?

Rent your own Hydrogen Inhalation machine?

**Visit www.ActivatedOxygenTherapy.com, or call +44(0)1743 718 324
to speak with our medically-trained staff.**

Relevant Research Articles:

Grepl, P., Botek, M., Krejčí, J., & McKune, A. (2025). Molecular hydrogen inhalation modulates resting metabolism in healthy females: findings from a randomized, double-blind, placebo-controlled crossover study. *Medical Gas Research*, 15(3), 367–373.

Todorović, N., Baltić, Š., Nedeljković, D., Andrić, Z., Krivokapić, Z., & Ristić, V. (2025). The effects of 8-week hydrogen-rich water consumption on appetite, body composition, sleep quality, and circulating glucagon-like peptide-1 in obese men and women (HYDRAPPET): A randomized controlled trial. *Medicina (Kaunas)*, 61(7), 1299.

LeBaron TW, Singh RB, Fatima G, Kartikey K, Sharma JP, Ostojic SM, Gvozdjakova A, Kura B, Noda M, Mojto V, Niaz MA, Slezak J. The Effects of 24-Week, High-Concentration Hydrogen-Rich Water on Body Composition, Blood Lipid Profiles and Inflammation Biomarkers in Men and Women with Metabolic Syndrome: A Randomized Controlled Trial. *Diabetes Metab Syndr Obes*. 2020 Mar 24;13:889-896. doi: 10.2147/DMSO.S240122. PMID: 32273740; PMCID: PMC7102907.

Ohta, S. (2015). Molecular hydrogen as a preventive and therapeutic medical gas: initiation, development and potential of hydrogen medicine. **Pharmacology & Therapeutics**, 144(1), 1-11. doi: 10.1016/j.pharmthera.2014.05.021. Available at: <https://www.sciencedirect.com/science/article/pii/S0163725814000932>

Nakao, A., Toyoda, Y., Sharma, P., & Evans, M. (2020). Effectiveness of hydrogen rich water on antioxidant status of subjects with potential metabolic syndrome-an open label pilot study. **Journal of Clinical Biochemistry and Nutrition**, 46(2), 140-149. doi: 10.3164/jcbln.09-100. Available at: https://www.jstage.jst.go.jp/article/jcbln/46/2/46_2_140/_article

Song, G., Li, M., Sang, H., Zhang, L., Li, X., Yao, S., ... & Zhang, Y. (2013). Hydrogen-rich water decreases serum LDL-cholesterol levels and improves HDL function in patients with potential metabolic syndrome. **Journal of Lipid Research**, 54(7), 1884-1893. doi: 10.1194/jlr.M035204. Available at: <https://www.jlr.org/content/54/7/1884>