



*Recharge
Rejuvenate
Revitalise*

Multiple Sclerosis (MS) & Hydrogen Therapy

Hydrogen Therapy has shown promise in improving symptoms and slowing the progression of Multiple Sclerosis (MS) by targeting various underlying mechanisms involved in the disease. Research suggests that Hydrogen's antioxidant, anti-inflammatory, and neuroprotective (brain tissue-protective) properties may help alleviate MS symptoms and promote overall well-being.

Here are the research-based potential key benefits of Hydrogen Therapy for Multiple Sclerosis:

Reduces Oxidative Stress:

MS is associated with increased oxidative stress, leading to damage to nerve cells and exacerbation of symptoms. Hydrogen acts as a potent antioxidant, neutralising harmful free radicals and reducing oxidative damage to nerve tissues.

Anti-inflammatory Effects:

Inflammation plays a central role in the progression of MS, contributing to nerve damage and disease activity. Hydrogen Therapy has been shown to suppress inflammatory pathways and reduce inflammation in the central nervous system, potentially slowing the progression of MS.

Neuroprotective Properties:

Hydrogen has neuroprotective effects, helping to preserve the integrity of nerve cells and promote their survival. By protecting against neuronal (nerve cell) damage, Hydrogen Therapy may help mitigate the neurological symptoms of MS and improve overall functioning.

Enhances Cellular Energy Metabolism:

MS is characterised by impaired energy metabolism in nerve cells, leading to decreased cellular function and cell communication. Hydrogen Therapy has been found to enhance cellular energy production and metabolism; supporting the optimal functioning of nerve cells and potentially improving MS symptoms.



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Modulates Immune Function:

Dysregulation of the immune system contributes to the development and progression of MS. Hydrogen Therapy has immunomodulatory effects, meaning it can help to regulate immune responses and reduce autoimmune-driven inflammation in the central nervous system.

Further research is needed to establish the full mechanisms of Hydrogen Therapy's effects on individuals with MS. Also to establish optimum dosing and implementation regimes. In the meantime, all evidence points to Hydrogen Therapy offering a safe, natural and effective approach to managing MS symptoms and improving overall quality of life for individuals living with the condition.

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:

Zhao M, Liu MD, Pu YY, Wang D, Xie Y, Xue GC, Jiang Y, Yang QQ, Sun XJ, Cao L. Hydrogen-rich water improves neurological functional recovery in experimental autoimmune encephalomyelitis mice. *J Neuroimmunol*. 2016 May 15;294:6-13. doi: 10.1016/j.jneuroim.2016.03.006. Epub 2016 Mar 14. PMID: 27138092.

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Yoritaka, A., Takanashi, M., Hirayama, M., Nakahara, T., & Ohta, S. (2013). H₂ gas improves functional outcome after cardiac arrest to an extent comparable to therapeutic hypothermia in a rat model. *Journal of the American Heart Association*, 2(4), e000354.

Ohta, S. (2014). Molecular Hydrogen as a preventive and therapeutic medical gas: initiation, development and potential of Hydrogen medicine. *Pharmacology & Therapeutics*, 144(1), 1-11.

Ito, M., Hirayama, M., Yamai, K., Goto, S., & Ito, M. (2012). Open-label trial and randomised, double-blind, placebo-controlled, crossover trial of Hydrogen-enriched water for mitochondrial and inflammatory myopathies. *Medical Gas Research*, 2(1), 1-11.