Recharge
Rejuvenate
Revitalise

Chronic Fatigue Syndrome Myalgic Encephalomyelitis (ME/CFS) and Hydrogen Therapy

Hydrogen Therapy shows potential benefits for individuals with Chronic Fatigue Syndrome (CFS), Myalgic Encephalitis (ME), or Chronic Fatigue Immune Dysfunction Syndrome (CFIDS), although research in this area is still emerging. There are several physiological mechanisms through which Hydrogen Therapy may offer relief for those suffering from these complex conditions.

Selective, Powerful Antioxidant Effect:
One key mechanism is Hydrogen's antioxidant properties. ME/CFS and related conditions are often associated with oxidative stress, which can lead to inflammation and cellular damage. Hydrogen acts as a potent antioxidant, scavenging harmful free radicals and reducing oxidative stress. By doing so, Hydrogen Therapy may help alleviate inflammation and protect against cellular damage, potentially easing symptoms such as Fatigue, Stiffness and Pain.

It's important that Hydrogen is a selective antioxidant, in that it does not neutralise free radicals that have beneficial effects on the body (such as nitric oxide). This gives it a significant advantage over other kinds of antioxidants (e.g. Vitamin C and Vitamin E supplements), which are often recommended in these conditions.

Moreover, Hydrogen has been shown to modulate the activity of inflammatory signalling pathways, such as nuclear factor-kappa B (NF-κB) and cytokines. NF-κB is a master regulator of inflammation, controlling the expression of genes involved in the inflammatory response. Inhibiting NF-κB activation and suppressing cytokine production is another method by which Hydrogen Therapy may help dampen the inflammatory response in ME/CFS, and potentially alleviate symptoms.

Immune Optimisation
It's believed that Hydrogen Therapy may also modulate immune function. Dysregulation of the immune system is believed to play a role in the development and progression of ME/CFS. Research suggests that Hydrogen may have immunomodulatory effects, helping to balance immune responses and reduce excessive inflammation. This immune-modulating property could potentially contribute to symptom improvement.

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Mitochondrial Enhancement
Additionally, Hydrogen Therapy has been shown to enhance mitochondrial function. Mitochondrial dysfunction is implicated in ME/CFS and can contribute to fatigue and various other symptoms. Hydrogen has been found to improve mitochondrial function and increase cellular energy production, which may help both alleviate fatigue and improve overall energy levels.

While more research is needed to fully understand the effects of Hydrogen Therapy on CFS/ME/CFIDS, and determine optimal dosing regimes, preliminary studies and anecdotal evidence suggest it may offer promise as a safe, effective and easily accesible complementary approach for managing symptoms.

**Ready to buy your own Hydrogen Water Bottle?
Rent your own Hydrogen Inhalation machine?
Visit www.HydroHolistics.com, or call +44(0)1743 718 324
to speak with our medically-trained staff.**

Relevant Research Articles:

Ohsawa, I., Ishikawa, M., Takahashi, K., Watanabe, M., Nishimaki, K., Yamagata, K., Ohta, S. et al (2007). Hydrogen acts as a therapeutic antioxidant by selectively reducing cytotoxic oxygen radicals. Nature Medicine, 13(6), 688–694. https://doi.org/10.1038/nm1577

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Kamimura, N., Nishimaki, K., Ohsawa, I., & Ohta, S. (2011). Molecular Hydrogen improves obesity and diabetes by inducing hepatic FGF21 and stimulating energy metabolism in db/db mice. Obesity, 19(7), 1396–1403. https://doi.org/10.1038/oby.2011.6

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