



H2 ELITE

H2 Elite is an advanced, high-dose molecular hydrogen formula, which is the potent, selective antioxidant that quenches the most cytotoxic, harmful hydroxyl free radicals while sparing important oxidants that assist in cell signaling, and fight microbes, pathogens, and other bodily irritants.^{1,2,3} In less than two minutes, H2 Elite tablets infuse and saturate any non-carbonated beverage with millions of molecular hydrogen bubbles. These tiny bubbles pass easily through biomembranes and the blood brain barrier, offering potent antioxidant and anti-inflammatory action to the entire body. This unique formulation generates more than 10 ppm of molecular hydrogen in 500mL of water with each tablet – amounting to 5 mg in a typical dose, which is the highest concentration of hydrogen available in supplemental form. Tablets can be used in an open container for optimal convenience and ease of use.

AN ANTIOXIDANT TO PROMOTE HOMEOSTASIS

Balancing oxidation and reduction is the fundamental challenge of life. Molecular hydrogen is unlike other antioxidants with broad reductive reactivity that may also impair essential defense mechanisms.⁴ Molecular hydrogen neutralizes highly oxidizing hydroxyl (OH) and peroxynitrite radicals in living cells and penetrates biomembranes, diffusing across cell membranes to reach the cell's nuclear DNA as well as mitochondria.¹ Mitochondria are a major intracellular source of reactive oxygen species that can harm the cell.^{5,6,7}

At the same time, molecular hydrogen spares other important oxidizing molecules such as hydrogen peroxide or superoxide.¹

BENEFITS & APPLICATIONS:

- Selective antioxidant ¹
- Upregulates detoxification ^{1,8}
- Anti-Inflammatory ¹³
- Cell signalling ^{2,3}
- Enhances athletic performance ²⁹
- Metabolic Syndrome ²⁸
- Ischemia-reperfusion injury ¹⁸
- Neurodegenerative conditions ^{19,20}
- Stimulates Nrf2 28,9,10

MODULATE INFLAMMATION AND STIMULATE REPAIR

Molecular hydrogen stimulates our own master-antioxidant switch, called Nrf2 (nuclear factor erythroid 2-related factor 2).^{8,9,10} Nrf2 activates and modulates over 200 different genes involved in cellular repair.¹¹ Hydrogen also has anti-inflammatory and antiapoptotic effects, downregulating signaling pathways in allergies¹² and inflammation.¹³ Molecular hydrogen induces an adaptive response against oxidative stress, known as hormesis.

HYDROGEN AS A THERAPEUTIC INTERVENTION

In animal studies, molecular hydrogen has been found to have a significant therapeutic effect on cerebral infarction (stroke), myocardial infarction (heart attack), and ischemia-reperfusion injuries (including organ transplantation.)^{14,15,16,17} In fact, Nature Medicine published a news and views editorial in 2007 stating: "Hydrogen gas debuts as a selective antioxidant with explosive potential as cytoprotective therapy for ischemia-reperfusion injury and stroke."¹⁸ Further animal studies have found that hydrogen water prevented the development of Parkinson's disease¹⁹, liver injury and fatty liver^{20,21} skin damage induced by UV radiation^{22,23} arthritis,²⁴ neuropathic pain²⁵, Alzheimer's disease²⁶ and numerous other conditions.²⁷ In humans, metabolic syndrome has responded to hydrogen by improving LDL levels and HDL function.²⁸ Hydrogen water may benefit athletes, lowering levels of blood lactate, increasing stamina and decreasing muscle fatigue.²⁹

It is possible, indeed, that molecular hydrogen may benefit every organ of the human body, by mitigating oxidative stress and inflammation.

THERAPEUTIC DOSING

Therapeutic effects of molecular hydrogen have been studied at doses ranging from 0.5 mg to 5 mg of hydrogen daily. In our formulation we achieve 5 mg in 500 milliliters of hydrogen-enriched water, which becomes fully saturated within two minutes of dropping the tablet into an open glass of water. The gas is rapidly diffused in the body, and peak blood and breath exhalation levels occur from 5 to 15 minutes later. Hydrogen levels return to baseline within an hour. This rapid return to baseline levels is important because hydrogen gas functions as a cell signaling molecule and intermittent exposure is more effective.

H2 Elite is available in 30 count and 60 count unflavored tablets and 30 count raspberry flavored tablets.

QUICKSILVER DELIVERY SYSTEMS® ARE FASTER, MORE ABSORBABLE AND MORE STABLE

Rapid action, highly absorbable, bioactive, and exceptionally stable: these are the hallmarks of Quicksilver Delivery Systems[®], which improve upon current technology with the most stable and absorbable, quality nutraceuticals available today. Our liposomal and emulsification technology offers smaller, more stable particles made from the highest-grade ingredients available. Our metabolically active and advanced phytonutrients always support superior results. Our H2 Elite offers the most potent molecular hydrogen detoxification, immune support and antioxidant action available today.

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References available at quicksilverscientific.com/h2elitereferences/