


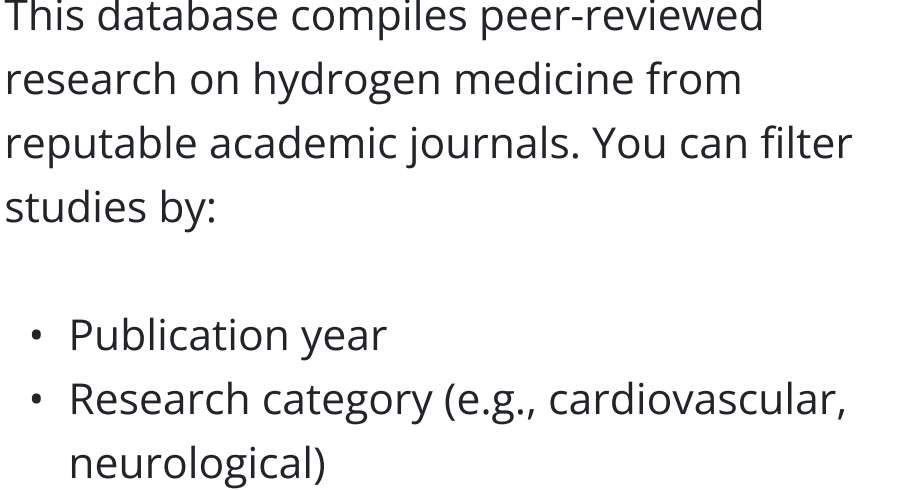
Understanding Molecular Hydrogen for Health

At HydrogenStudies.com, we are dedicated to bringing you the latest research on the health benefits of molecular hydrogen. Our mission is to make complex scientific findings accessible, empowering you to enhance your well-being.

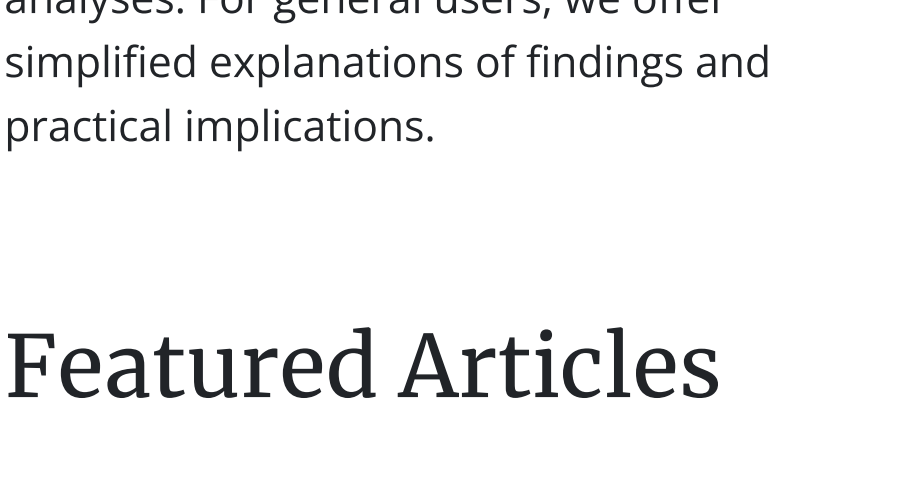
1,335 Studies and Counting

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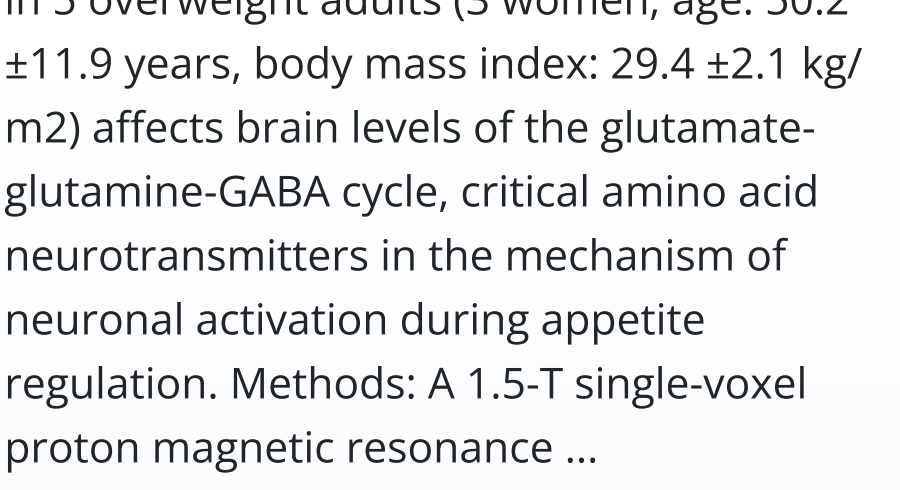
Study Outcome by Year



Top Study Test Subjects



Countries by total Study Amount



What is Molecular Hydrogen?

Molecular hydrogen is the smallest molecule in the universe, consisting of two hydrogen atoms. This small size allows it to easily penetrate cell membranes, the blood-brain barrier, and subcellular compartments. Unlike conventional antioxidants, H₂ selectively reduces cytotoxic oxygen radicals while maintaining the beneficial role of oxidative stress in normal cell signaling.

How to Use This Database

This database compiles peer-reviewed research on hydrogen medicine from reputable academic journals. You can filter studies by:

- Publication year
- Research category (e.g., cardiovascular, neurological)
- Study type (human, animal, in vitro)
- Administration method
- Outcome (positive, neutral, negative)

For researchers and clinicians, we provide comprehensive study summaries, methodology details, and statistical analyses. For general users, we offer simplified explanations of findings and practical implications.

Featured Articles

BRAIN - OBESITY

Molecular hydrogen modulates brain glutamate/GABA-glutamine cycle in overweight humans

TLDR Introduction: We evaluated whether 12-week intake of molecular hydrogen (H₂) in 5 overweight adults (3 women; age: 50.2 ±11.9 years, body mass index: 29.4 ±2.1 kg/m²) affects brain levels of the glutamate-glutamine-GABA cycle, critical amino acid neurotransmitters in the mechanism of neuronal activation during appetite regulation. Methods: A 1.5-T single-voxel proton magnetic resonance ...

BRAIN - RADIOPROTECTION

Comprehensive brain tissue metabolomics and biological network technology to decipher the mechanism ...

TLDR Background: Hydrogen-rich water (HRW) has been shown to prevent cognitive impairment caused by ionizing radiation. This study aimed to investigate the pharmacological effects and mechanisms of HRW on ionizing radiation by coupling the brain metabolomics and biological target network methods. Methods and results: HRW significantly improves the cognitive impairment in rats exposed to ionizing ...

BRAIN - STROKE

Hydrogen-rich saline promotes neuronal recovery in mice with cerebral ischemia through the ...

TLDR This study explored the protective effect and mechanism of hydrogen-rich saline (HRS) on the neurological function of mice with cerebral ischemia. Effects of HRS on neurological function in mice with cerebral ischemia were evaluated by neurological function scores. Infarct volume and histological damage were evaluated by 2,3,5-triphenyl tetrazolium chloride staining (TTC staining). Golgi-Cox ...

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Dive into our research archive organized by specific topics—ranging from hydrogen's role in oxidative stress reduction to its effects on sports recovery, cancer support, and neuro-protection. Whether you're curious about therapeutic applications or industrial innovations, this section makes it easy to find studies that match your area of interest.

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Hydrogen

Explore Studies By Body System

Understand how molecular hydrogen affects different parts of the body. Browse studies grouped by body systems—such as cardiovascular, neurological, respiratory, and digestive systems—to explore its impact on organs, functions, and health outcomes in a medically relevant context.

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