

# Hydrogen Medicine

Combining Oxygen with  
Hydrogen and CO<sub>2</sub>



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3<sup>rd</sup> Edition

Free Chapters

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## **Preface**

This book will explore hydrogen gas, hydrogen water, oxygen (O<sub>2</sub>), and carbon dioxide (CO<sub>2</sub>). Combining these gases will usher in a new age of medicine where the impossible becomes possible. Expect every protocol to perform better when the levels of these primordial gasses are optimized. Looking for the fountain of youth (anti-aging medicines), we find nothing as powerful as these gases. Everything done in ICU departments is safer when these gases are employed.

My work on oxygen and CO<sub>2</sub> is fundamental to my cancer work and will be presented in this book because one primordial gas cannot be safely separated from the others.

For most doctors, nurses, and patients, this is the first comprehensive look at hydrogen medicine. The sun loves hydrogen, so does water, and doctors will too because hydrogen offers an extraordinary safe way to treat people. Hydrogen is the most abundant element in the universe, and as a medicine, it stands up tall, though small, next to oxygen.

I recently received a most extraordinary testimonial about a patient with Multiple System Atrophy (MSA), a very rare neuro-degenerative progressively fatal disease, similar in many ways to ALS/Motor Neuron Disease. The disease had already progressed for eight years in this patient. They usually would be deteriorating rapidly to the point of needing round-the-

clock care with death on the horizon. Then this person started hydrogen inhalation therapy. After eight months of one of the safest treatments in medicine, instead of being on or near a death bed, the hydrogen gas brought this person back to health to full mobility and active life.

Hydrogen is known to save lives in ICU and emergency rooms. In China, doctors have already used hydrogen gas to address COVID-19 to address severe lung distress quickly. In my book, some stories lead one to believe that the worse a person's condition is, the better it works. Hydrogen works like a miracle gas when under tremendous pressure. Down at 2000 feet, deep-sea divers manage to survive at bone-crushing depths by breathing 96 percent hydrogen and only 4 percent oxygen. It is also used to prevent decompression and nitrogen sickness.

H<sub>2</sub> has shown anti-inflammatory and antioxidant ability in many clinical trials, and its application in the latest Chinese novel coronavirus pneumonia (NCP) treatment guidelines have been favorable. Clinical experiments have revealed the surprising finding that H<sub>2</sub> gas may protect the lungs and extrapulmonary organs from pathological stimuli in NCP patients.

The Seventh Edition of Chinese Clinical Guidance for COVID-19 Pneumonia Diagnosis and Treatment (7<sup>th</sup> Edition), issued by the Chinese National Health Commission, recommended the inhalation of oxygen mixed with hydrogen gas (33.3% O<sub>2</sub> and 66.6% H<sub>2</sub>), bringing H<sub>2</sub> to the forefront of contemporary therapeutic medical gas research.

Molecular hydrogen (H<sub>2</sub>) gas regulates anti-inflammatory and antioxidant activity, mitochondrial energy metabolism, endoplasmic reticulum stress, the immune system, and cell death (apoptosis, autophagy, pyroptosis, ferroptosis, and the circadian clock, among others) and has therapeutic potential for many systemic diseases

Molecular hydrogen penetrates deep into every cell of your body, fighting free radicals and harmful inflammation at the cellular level. H<sub>2</sub> is the lightest chemical element in the Earth's atmosphere. H<sub>2</sub> is often mixed in gas cylinders for deep-sea divers to help breathe much easier at deep depths. It is also used to prevent decompression and nitrogen sickness.

Some of the research-backed benefits of molecular hydrogen include:

- Supports cognitive health
- Supports healthy immune function
- Supports healthy energy levels

Over 1400 peer-reviewed studies from across the globe have demonstrated that molecular hydrogen is a unique antioxidant. Some of the principal characteristics of hydrogen include:

**Selectivity** - Because H<sub>2</sub> is such a stable molecule, it only reacts with the very worst free radicals: hydroxyl radical and peroxynitrite. This means it leaves the beneficial radicals used in cell signaling and immune function alone and only targets the "bad guys."

**Size** - Hydrogen is the smallest element. This allows it to diffuse very freely, allowing the free-radical fighting hydrogen molecules to get places most other antioxidants cannot. Hydrogen can cross the blood-brain barrier and cell membranes, penetrating deep into a cell's nucleus and mitochondria.

**Cell Signaling** - Much of hydrogen's benefits come from its cell signaling activity. Within a cell, hydrogen works at the genetic level by "turning on" the genes that code for our natural antioxidant defense systems. H<sub>2</sub> tells your cells to start pumping out more of your natural antioxidants, like glutathione peroxidase (GSH) and superoxide dismutase (SOD).

### **HYDROGEN GOT ME OUT OF BED TESTIMONY**

Dear Dr. Sircus,

I was not doing the AquaCure for some time and even didn't realize how far I was declining again until it was difficult to get out of bed.

The other day I was completely bedridden. During prayer, I was reminded to use the machine, which was stored away. I breathed Hydrox for 20 minutes and drank the hydrogen-infused water. One hour later, I was up and could do my most important chores.

I was thankful all the rest of the day for such life-sustaining help.

I want so much to thank you, Dr. Sircus, for being a profound, important, critically-needed teacher and healer in my life.

With my deepest gratitude, respect, and appreciation. Josef

It is a beautiful feeling to receive testimonies like this. Knowing that one is helping others to feel and be better makes life worth living. My testimony is more about anti-aging. I look and feel more than ten years younger since beginning to use hydrogen inhalation therapy. Hydrogen is also the only thing that I have found that has almost completely reversed the neuropathy in my feet!

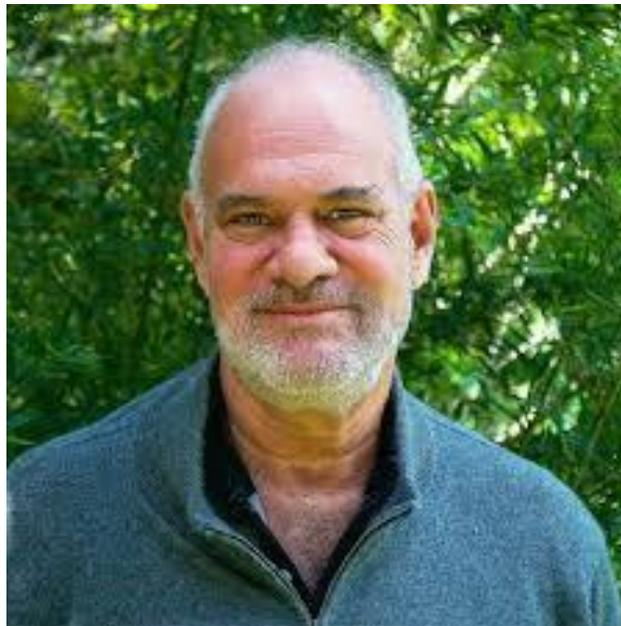
### **HYDROGEN IS THE BACKBONE OF THE UNIVERSE**

Out of nothing comes something. Hydrogen is that something. Vast clouds of hydrogen occupy the immense reaches of space. Hydrogen fills every cubic inch of the universe. The process of life, photosynthesis, is all about attaching hydrogen to carbohydrates, fats, proteins. Digestion is about stripping hydrogen off of these foods so our cells can use them to stimulate the mitochondria, which are the energy plants inside of us.

H<sub>2</sub> is a flammable, colorless, odorless gas. It was previously considered physiologically inert in mammalian cells and not to react with active substrates in biological systems. Now, H<sub>2</sub> has emerged as a novel medical gas with broad applications.

The main point of this book is to promote hydrogen therapy. Anyone with a life-threatening disease needs hydrogen inhalation therapy if they want to increase their security that their treatments will work no matter what other treatments are employed. This book is about leaping tall medical buildings in a single bound with the three primary medical gases.

## Hydrogen Medicine is Revolutionary



When studying *Hydrogen Medicine*, one is embarking on a medical journey through the very basics of life. As the subtitle suggests, command of the three elemental gases will get one everywhere, medically speaking, when combined with essential minerals, detoxification protocols, organic diets, and intermittent fasting.

*Hydrogen Medicine* is revolutionary. In the future that this book envisions, oxygen will no longer be given alone but always with hydrogen.

It is time for the world to embrace hydrogen as a clean energy carrier to save us from the pollution nightmare affecting every urban center globally. It is also time for modern medicine to wake up to hydrogen's power and purity as a medicine. Hydrogen produces zero toxic emissions when used for energy, and it has zero side effects when used as a medicine.

## HEALING POWER WHEN WE NEED IT

When we are under tremendous stress, sick or dying, a hydrogen inhaling machine should be right by our bed or sitting under our desk at the office, or both. Think of a deep-sea diver down 2,000 feet—incredible stress and pressure. To stay alive down there, divers breathe 96 percent hydrogen and only 4 percent oxygen.

At the death door, hydrogen's effects are most noticeable. That is why it belongs in ambulances, emergency centers, and Innovative ICU Medicine (Intensive Care) right alongside oxygen.

Hydrogen molecules and ions are the backbones of the universe; in a thousand years, we will still see hydrogen running the sun and every other star in the universe. Hopefully, it will not take that long before hydrogen therapy is introduced during surgery, in clinics, spas, and in all homes.

## MOLECULAR HYDROGEN IS THE PERFECT MEDICAL TREATMENT FOR OXIDATIVE STRESS

Oxidative stress, caused by rivers of free radicals, is a plague on modern man. It's the toxic pollution, chemical exposures, heavy metals, radiation from the indiscriminate use of medical imaging, pharmaceutical medicines, chemotherapy, your cell phone, which increases oxidative stress.

From a cell's perspective, hydrogen inhalation is like standing under a refreshing waterfall. Inhaling hydrogen gas (with oxygen included) will extinguish oxidative stress and inflammation, just like a firetruck puts out fires.

Hydrogen therapy is a new innovative clinical mode of treatment for many medical situations, including surgery, tissue damage and dysfunction, diabetes, heart disease, and cancer. On the health end, hydrogen offers the long-sought-after fountain of youth because it puts the rocket power of hydrogen directly into one's cells. Everyone gets something from hydrogen because life cannot exist without it.

Hydrogen inhalation is a medicine that doubles as a health practice. Some users already regard H<sub>2</sub> inhalation as an essential act of life, like eating, drinking, and exercising. Meaning it is always helpful to have more hydrogen in your tank.

For people with late-stage cancer, hydrogen inhalation is like getting two or more intravenous Vitamin C treatments a day without toxicity. In the ICU, it can be administered 24/7, meaning

until the patient gets up and out of bed. Some doctors already know what antioxidants like Vitamin C can do for sepsis patients. Hydrogen offers those on death door even more relief.

Hydrogen gas and hydrogen impregnated water offer doctors and patients alike therapeutic strategies that promote health and quality of life in clinical environments. Besides, hydrogen also has beauty applications for your skin. Want to look young again?

Higher levels of hydrogen protect your DNA against oxidative damage. It suppresses the single-strand breakage of DNA caused by reactive oxygen species free radicals. Hydrogen also repairs oxidative damage to RNA proteins. Anyone suffering from diabetic foot or neuropathy will be delighted with the inhalation of hydrogen gas over a few months. Like carbon dioxide, hydrogen can be pumped into a bagged arm or leg to treat syndromes like gangrene and skin cancer topically.

My writings on hydrogen are enthusiastic, and I am not alone in this. "It is not an overstatement to say that hydrogen's impact on therapeutic and preventive medicine could be enormous in the future," write medical scientists.<sup>1</sup>

If I have anything to do with it, hydrogen will eventually assume its rightful place next to oxygen. Hydrogen in life-threatening situations can even be miraculous: Over the long haul, it just keeps working like a solar wind, filling our sails and pushing our ship of life away from the rocky shoals of sickness and death.

Hydrogen is not an instant magic wand. If one is looking for dramatic effects, one needs to spend dramatic amounts of time inhaling hydrogen gas. If your life is on the line, think about a continuous application, even breathing hydrogen all night while you sleep. If one wants to be aggressive with anti-aging treatments, think of two hours a day to eventually become young again.

Although hydrogen is not a miracle medicine, one can expect many miracles to happen. I was talking with Tyler LeBaron of the Molecular Hydrogen Institute, saying, "Too bad hydrogen therapy does not offer enlightenment, but for the very sick, I imagine it might seem that way." And he responded, "Yes, for sick people, it does offer enlightenment, and even for those that are not sick, it may improve their cognitive function."

Hydrogen is by far the cleanest form of energy and is also the safest medicine, meaning it has no harmful effects, only good ones. Going through life and facing disease is more comfortable if we fill our bodies and cells with hydrogen as long as we pay attention to oxygen and blood CO<sub>2</sub> levels at the same time.

Hydrogen is the ultimate medicine for high performers and the chronically ill alike. It will be hard to die from the flu if one is breathing oxygen and hydrogen together. Hydrogen gas will help anyone stay alive longer, no matter what their medical situation.

# Introduction to Hydrogen Medicine



Modern medicine is discovering how brilliant, safe, and effective hydrogen can be. Molecular hydrogen brings a revolution to treatment. The science is irresistible, and mounting clinical experience points to hydrogen as the most straightforward, safest medicine in existence. After experimenting with toxic pharmaceuticals, heavy metals, and radiation over the last century, we now find hydrogen gas and hydrogen water, making headway into the mainstream of medicine where it is saving lives.

## HYDROGEN TO THE RESCUE

What is the first thing the fire department does when its trucks arrive at a fire? They pull out the hoses, connect to the hydrants, and pour tons of water onto the nastiest fires. In the medical world, the equivalent is hydrogen, which can be flooded into a dying body to put out the worst flames of inflammation and oxidative stress.

As you shall see throughout this book, molecular hydrogen ( $H_2$ ) functions as an extensive protector against oxidative stress, inflammation, and allergic reactions.<sup>ii</sup> Molecular hydrogen has proven useful and convenient as a novel antioxidant and modifier of gene expression where oxidative stress results in cellular damage.

A man who had Type 2 diabetes was not getting results using hydrogen inhalation. When asked how he was doing his hydrogen therapy, he said he was inhaling the gas but only drinking a little water. After being urged to drink the water more regularly, he bought three 17 oz. stainless thermos bottles drinking that much hydrogen water each day. Before, his blood sugar was out of control,

and doctors had to increase insulin. But since he's been combining H<sub>2</sub> inhalation with drinking the water daily, his blood sugar has come down and normalized after about a week.

Hydrogen can cross the blood-brain barrier, enter the mitochondria, and "even can translocate to the nucleus under certain conditions," reports Dr. Brandon J Dixon in *Medical Gas Research*. Because of its size, molecular hydrogen can do a lot; more massive antioxidants can't. Studies have shown that hydrogen also exerts anti-apoptotic and cytoprotective properties that are beneficial to the cell.

There are no safety issues with hydrogen; it has been used for years in gas mixtures for deep-sea diving and numerous clinical trials without adverse events. There are no warnings in the literature on its toxicity or long-term exposure effects.

Hydrogen will change the landscape of a person's present condition, and that's why doctors are taking notice. Its systemic properties and penetration abilities allow hydrogen to be useful for poor blood flow and other situations that limit many systemic treatments.

### **HYDROGEN PROTECTS US FROM HARM**

The first report demonstrating the benefits of drinking hydrogen water in patients receiving radiation therapy for malignant tumors affirms how helpful hydrogen is for radiation exposure. This finding provides the foundation for a clinically appropriate, effective, safe strategy for delivering hydrogen gas to mitigate radiation-induced cellular injury.<sup>iii</sup>

It is worth repeating that hydrogen helps protect us from the cellular damage caused by cell phones, Wi-Fi, and all the EMF pollution that is increasingly plaguing us, which is about to get much worse with the implementation of 5G.

### **IN A WORLD OF INCREASING RADIATION**

Chronic oxidative stress is the leading cause of the late post-radiation effects, including cancer.<sup>iv</sup> Cellular exposure to ionizing radiation leads to oxidizing events that alter the atomic structure through direct radiation interactions with target macromolecules. Further, the oxidative damage may spread from the targeted to neighboring, non-targeted bystander cells. In irradiated cells, these reactive species' levels may be increased due to perturbations in oxidative metabolism and chronic inflammatory responses, thereby contributing to the long-term effects of exposure to ionizing radiation on genomic stability.<sup>v</sup>

We are always faced with oxidative stress, and reducing it is one of the most important things we can do for our health. Because background radiation is increasing, so are our levels of oxidative stress.

Cosmic radiation is known to induce DNA and lipid damage associated with increased oxidative stress and remains a major concern in space travel. Now that we are in the beginnings of a Grand Solar Minimum, flying has become more dangerous due to these increasing cosmic rays penetrating our atmosphere. Hydrogen for astronauts can potentially yield a novel and feasible preventative/therapeutic strategy for radiation-induced events, either by inhalation or drinking hydrogen-rich water.

### **THE FIRE OF LIFE**

Just as every sun needs mountain ranges of hydrogen every minute to run themselves, humans too run on hydrogen. Supplying more, in the form of molecular hydrogen gas and water, ignites a fire in us. A healing fire that medical scientists believe is even good for impossible to cure diseases like muscular dystrophy and many other conditions that modern medicine has failed to find answers for.

This book presents a chapter dedicated to hydrogen as a fuel. The fire of life gets stimulated by hydrogen. If one needs healing, that fire will be directed precisely to the place it is most needed. We can create a perfect hydrogen flame by balancing the three gases so that the mitochondria fire up ATP production. With enough hydrogen and oxygen, the mitochondria will burn without oxidative prejudice. The hydrogen diminishes the fires of oxidative stress even as it is the fuel that lights the fire.

Hydrogen is one of the primordial elements that fueled the development of all life on Earth. Human beings cannot live without hydrogen. While science refers to us as carbon-based life forms, man is also a hydrogen-based life form. When plants absorb sunlight, they store negatively charged hydrogen ions through the process of photosynthesis. When you eat unprocessed plants, your body's cells utilize those plants' nutrients with the hydrogen ions' electrical charge. When your body burns hydrogen and oxygen, it generates the energy we need to live.

All living things must have hydrogen to sustain life. The human body must breathe to get oxygen and must eat and drink to get hydrogen. The primary sources of hydrogen ions for the human body are fresh uncooked plants, fruits, vegetables, and water. Now we can inhale directly molecular hydrogen gas. Dissolved in water, we can drink it, or doctors can inject it.

It is appropriate to discuss a little what hydrogen will not do. It will not fix a broken bone. It will not resolve a busting appendix though it should be used during and after surgery. It will not resolve the conflicts and stress people feel from personality problems. Though it can strengthen a person's sexuality, it will not touch on negative patterns of behavior.

It will not, all by itself, balance the three nervous systems of Ayurvedic Medicine Vata, Pitta, and Kapha. Hydrogen will not balance meridian energies nor affect the chakras in any meaningful way.

Though hydrogen is useful in all emergencies, it will not substitute for magnesium if a person has a heart attack. Magnesium will work almost instantly in such situations where hydrogen takes time.

Hydrogen gas and hydrogen water are helpmates. They are not a cure for anything though they might help everything.

### **HYDROGEN FOR EVERY ALIMENT**

Treating cancer with hydrogen, oxygen, and carbon dioxide is an approach that treats the fundamental reasons cancer cells form and get aggressive in the first place. Cancer should not be treated as a genetic disease; it is more like a metabolic disease.

Hydrogen is right for every ailment known to humankind, just as it is essential for every star in the universe. In reality, the sicker a person is more they will experience the benefits of hydrogen. Hydrogen can be flooded into the body to put out the worst flames of inflammation and oxidative stress. In Hydrogen Medicine, we flood the body with the three primary gases—hydrogen, oxygen, and carbon dioxide—as a first course of action in all dire medical situations. The same goes for any chronic or acute condition like the flu. The longer one wants to live, the more one supplements these primary gases. The most powerful healing/medical/anti-aging device in the world is a hydrogen oxygen inhaler.

Hydrogen gas therapy is a promising novel treatment for emergency and critical care medicine. It exerts a therapeutic effect in a wide range of disease conditions: From acute illness such as ischemia-reperfusion injury, a shock to chronic diseases such as metabolic syndrome, rheumatoid arthritis, and neurodegenerative diseases.

Concerning various emergency and critical care aspects, researchers report hydrogen is useful for acute myocardial infarction, cardiopulmonary arrest syndrome, sepsis, contrast-induced acute kidney injury, and hemorrhagic shock. Hydrogen gas has even been used to attenuate oxidative stress in a rat model of subarachnoid hemorrhage.

When you are under tremendous stress and must continue at high-performance, hydrogen medicine should be right by your bed or sitting under your desk at the office, or both.

Inhaling hydrogen gas (with oxygen included) with a hydrogen inhalation device, from a cell's point of view, is like standing under a waterfall that invigorates even as it cools. Hydrogen will help anyone stay alive longer, no matter what situation.

It is time for the world to embrace hydrogen as a clean energy carrier to save us from the pollution nightmare affecting every urban center in the world; it is also time for modern

medicine to wake up to the power and purity of hydrogen as medicine. Hydrogen produces zero toxic emissions when used for energy; it has zero side effects when used as a medicine.

Hydrogen belongs in ambulances, emergency centers, and Innovative ICU departments (Intensive Care) right alongside oxygen, which does not quite work as well as needed without hydrogen being present in abundance. Imagine water without hydrogen, and you will get the significance of combining oxygen and hydrogen gas as the ultimate way to stabilize critical patients.

It is hard to lose with hydrogen. H<sub>2</sub> inhibits cell viability, migration and invasion, and catalyzed cell apoptosis. Hydrogen helps us fight cancer directly, minimizing its spread. It is useful as an effective adjunct to radiation and chemotherapy treatments moderating their toxic effects by cooling oxidative stress.

Hydrogen Medicine is revolutionary; it holds the potential to save lives, reduce suffering, and make one beautiful and young again through its anti-aging effects. Importantly, with the increases of man-made nuclear radiation (think Fukushima), medical tests that use radiation, substantial increases in cosmic rays (caused by Grand Solar Minimum), and the coming of G5 telecommunications, which has not been tested for safety, hydrogen gas therapy is becoming essential to mitigate the increases of oxidative stress.

A hydrogen and oxygen gas machine is probably the first piece of medical equipment that one should invest in, for it offers a fundamental treatment for almost all disease conditions. It is not a cure-all and should be used in the context of a full protocol, with particular attention paid to increasing CO<sub>2</sub> levels through sodium and potassium bicarbonates and slow breathing.

## New Advances in Gas Therapy



Ambulance crews have often regarded oxygen as something approaching a wonder drug. Oxygen has always been a lifesaving treatment, and now doctors and patients can combine

oxygen with hydrogen to achieve even more. This pair will have a substantial impact on medicine.

It is hydrogen that allows the body to function and breathe under stress! The United States Navy developed procedures allowing dives between 500 and 700 meters (1650 to 2300 feet) in depth while breathing gas mixtures based on hydrogen, called hydroxy (hydrogen-oxygen) or hydreliox (hydrogen-helium-oxygen).

Although the first reported use of hydrogen seems to be by Antoine Lavoisier (1743–1794), who had guinea pigs breathe it, the first uses of this gas in deep-sea diving are attributed to the Swedish engineer Arne Zetterström in 1945. Breathing a mixture of 96% hydrogen and 4% oxygen, he could dive deeper than anyone before.

Hydreliox is a breathing gas mixture of helium, oxygen, and hydrogen. For the Hydra VIII mission at 50 atmospheres of ambient pressure, the combination was 49% hydrogen, 50.2% helium, and 0.8% oxygen.

It is hard to imagine a more stressful situation than being that deep underwater. If hydrogen can keep us alive under great stress at bone-crushing depth, think of what it can do if one dies or suffers from a chronic disease.

## **MEDICAL GASES**

Heliox is a breathing gas composed of helium (He) and oxygen (O<sub>2</sub>). Heliox is a medical treatment for patients with difficulty breathing. The mixture generates less resistance than atmospheric air when passing through the lungs' airways, requiring less breathing effort. Heliox has been used medically since the 1930s. Although the medical community initially adopted it to alleviate upper airway obstruction symptoms, its range of medical uses has since expanded because of the low density of the gas.

Through the Bohr Effect,<sup>vi</sup> medical scientists have known the importance of carbon dioxide (CO<sub>2</sub>). However, hydrogen allows for quicker healing and recovery than O<sub>2</sub> and CO<sub>2</sub>.

Medical gases trigger naturally occurring physiological responses, enhancing the human body's preventive and self-healing capabilities. Medical gases include carbon dioxide, oxygen, nitrogen, nitric oxide, helium, and, most recently, hydrogen. Medical gases are used on their own or in combination as therapeutic effects or insufflation during surgery.

Inhaled Nitric oxide works by relaxing smooth muscles to dilate blood vessels, especially in the lungs. Nitric oxide, together with a mechanical ventilator, treats respiratory failure in premature infants. Increased levels of CO<sub>2</sub> also dilate blood vessels while positively affecting the oxygen disassociation curve. Molecular hydrogen (H<sub>2</sub>) is an inert and non-functional gas

in our body, but this is not correct. H<sub>2</sub> reacts with strong oxidants such as hydroxyl radicals in cells.

Pediatric and neonatal patients have an assortment of physiologic conditions that may require adjunctive inhaled gases to treat a wide variety of diseases. Inhaled nitric oxide, helium-oxygen mixtures, inhaled anesthetics, hypercarbia mixtures, hypoxic mixtures, and hydrogen are used to alter physiology to improve patient outcomes.<sup>vii</sup>

Xenon is another medical gas capable of establishing neuroprotective, inducing anesthesia, and serving in modern laser technology and nuclear medicine as a contrast agent. Despite its high cost, its lack of side effects, safe cardiovascular and organ protective profile, and neuroprotective role after hypoxic-ischemic injury (HI), doctors favor its applications in clinics.

## Hydrogen Inhalation Devices



Hydrogen inhalation devices are available in the United States and are already in wide use in Japan and China. In the chapter on [Hydrogen for Surgery & ICU](#), we saw a high-end hydrogen oxygen inhaler for surgery and intensive care under development that will go for thirty thousand dollars when approved by the FDA.

The average couple taking molecular hydrogen tablets consumes two bottles per month at an average cost of \$119 for the highest parts per million hydrogen tablets on the market.

When you own a hydrogen inhalation machine, the whole family can use it at a fraction of the cost vs. hydrogen tablets. For reference, just 40 minutes on a hydrogen inhalation machine is the equivalent of taking an entire bottle of Vital Reaction Molecular Hydrogen Tablets! If

you use your inhalation machine daily for 40 mins for a year, that is equal to over \$21,700.00 worth of tablets!

This chapter is devoted to options and uses available for patients and clinics. There is a wide range of prices of Hydrogen Inhalers. The below units will deliver most, if not all, the safety and therapeutic benefits of a thirty-thousand-dollar machine but cost between two and seven and a half thousand dollars.

My recommendation for most patients is to use a machine that produces a mixture of hydrogen and oxygen called HydrOxy (aka Brown's Gas). HydrOxy is a mixture of 67 percent hydrogen and 33 percent oxygen. When water is turned into HydrOxy, it expands (from liquid to gas) 1866 times. One liter of water can make 1866 liters of HydrOxy.

Most hydrogen for health studies uses air infused with 2% hydrogen for safety and efficacy. Air mixtures containing more than 4.7% hydrogen are potentially explosive, so it's important to choose a hydrogen inhalation machine that allows the hydrogen volume adjustment to optimize the safe therapeutic value for any sized user.

Most hydrogen inhalers will saturate the body quickly. Inhaled air containing 2% hydrogen will reach a peak plasma level in about 15 min, and upon stopping of inhalation, the return to baseline takes about 30 min.

Inhalation is the most effective way to get hydrogen into the body. Inhaling air containing 2% hydrogen for 12 seconds will put as much hydrogen into the blood as drinking a liter of water infused with hydrogen at 1.6 ppm.

Note that all gas coming out of a machine is not used because a breathing cycle is generally 1/3 inhalation, 1/3 exhaled, and 1/3 rest. The intended receiver is only breathing in about 1/3 of the produced gas mixture.

Another important consideration is keeping the HydrOxy gas cool. Suppose you keep the electrolyzer operating temperatures below 40 degrees Celsius. In that case, the water vapor (steam) production is kept to an absolute minimum, resulting in a higher quality of gas, extended running times without refilling, and the generator's increased life span and its components.

If used as directed and maintained at the recommended service schedule, the machines below are both expected to last well beyond ten years, even if used 24/7. Both also have power supplies compatible with 120 VAC and 240 VAC.



The [Hydrogen Technologies inhaler](#) is the Mercedes or BMW of the hydrogen inhalation machines. No other device comes close to touching it in terms of durability, quietness, and ability to run 24/7, so it is ideal for clinical environments. As we will see directly below, the AquaCure offers the same gas and most of this machine's features for less than half the cost.

This Molecular Hydrogen/Oxygen generator is made using the highest quality materials. Its patented generator design is made from stainless steel, which is used extensively throughout its devices. Their engineers believe that plastics and polycarbonates may negatively affect the gas's quality when used over long periods.

The Hydrogen Technologies machine produces up to 600 mL of hydrogen and 300 mL of oxygen per minute.

The large, 15 plate electrolysis cell and tank capacities in the Hydrogen Technologies machine allow for efficient gas production at low electrical demand and low operating temperature.

The [AquaCure® \(Model AC50\)](#) is an advanced, user-friendly HydrOxy for Health device. It was developed using over 30 years of electrolyzer R&D experience and feedback from thousands of customers.



The AquaCure is a lower cost, practical, dependable, and versatile hydrogen inhaler that can give decades of trouble-free service and is designed to be the world's safest HydrOxy machine, with safety certification, pressure relief, pressure control, variable output, liquid level control, etc. It consumes about 200 watts of power to produce up to 833 mL (558 mL and 275 mL of oxygen) of HydrOxy gas per minute, making it one of the best options if you're looking to own a HydrOxy Inhalation machine.

It has ten electrolysis cells inside a stainless steel reservoir tank to efficiently minimize electrolyzer size. It has a commercial-grade white powder coated iron housing (not stainless steel like the Hydrogen Technologies) because it's designed to have FULL safety and functionality at a lower cost.

While it's designed to keep the output gasses cool, the cooling fan is a little louder than the Hydrogen Technologies.

The AquaCure is designed to apply all six therapeutic protocols. It has a lifetime warranty and a one-year satisfaction guarantee. It can be used continuously with minimal maintenance (just add pure water and rinse it every 100 hours). When purchasing, use DRSIRCUS as a 10% discount code.

The Hydrogen Technologies "Hydroqube" series (affectionately known as the "QB" series) is now available and is focused around the Proton Exchange Membrane (PEM) electrolysis technology of which we have put our style and engineering excellence standards on.

The machine produces a mixed atomic count of 66.6% hydrogen and 33.3% oxygen gas by splitting the water molecules of distilled or demineralized water. The retail price is 4,995 dollars.



Hydrogen inhalation goes perfectly with hydrogen water, otherwise known as hydrogen-rich water. For a few years, hydrogen water machines put low amounts of hydrogen into one's drinking water. Mine sits in the closet along with my water ionizer, which puts out high pH but low alkalinity and low hydrogen. Molecular hydrogen water machines cannot stand up to hydrogen inhalers or even high ppm hydrogen water tablets. The great advantage of the hydrogen-oxygen inhalers above is that they both also make your hydrogen oxygenated water.

If you need help implementing Hydrogen therapy, you can consult with me. I can help you decide which hydrogen inhaler is best for you, suggest the time necessarily spent breathing hydrogen gas to receive desired results, and what other therapies would support and fill out hydrogen therapy. One can receive discounts on most machines if one contacts me. See my consultation page on [drsircus.com](http://drsircus.com) or apply from the site for a complimentary 15-minute consult.

### **What to Expect from Hydrogen Inhalation Treatments**

- Detoxification
- Restores youthfulness
- Ulcers and sores healing
- Stronger and thicker hair
- Reduction in blood pressure
- Slows down free radical damage
- Lowers cholesterol levels
- Help flush heavy metals from our bodies
- Helps in absorption of supplements
- Improved allergies and asthma conditions

- Better blood circulation
- Lower saturated fat levels
- Fewer body fatigues
- Faster recovery from diseases
- Improved peripheral circulation
- Reduces cellulite and wrinkles
- Improves memory in elderly
- Boosts brain power
- Reduces acidic condition
- Improved constipation and diarrhea conditions
- Improved blood glucose

The more serious one's condition, the more one wants to combine hydrogen gas inhalation with hydrogen water. But when one's back is against the wall, magnesium bicarbonate water is much stronger therapeutically than hydrogen water.

Common testimonies using hydrogen include:

diminishing of numbness in extremities,  
 reduction and elimination of edema,  
 improvement of sinus problems,  
 more energy,  
 improvements in blood sugar,  
 reducing the need for insulin,  
 feeling the difference after the first treatments,  
 feelings of refreshment and lightness on one's feet,  
 improvements in skin conditions,  
 improvements in stamina,  
 feelings of body changes and energy levels, unstiffening of knees and ankles,  
 stimulate youthful senses, more alert,  
 progress in circulation,  
 reduction of pain, headaches gone, decrease in need to take painkillers,  
 skin appearance dramatically improved, healthier hair, spots on face reduced,  
 reduction of constipation,  
 lesser feelings of depression,  
 neck no longer stiff and restoration of the full range of movement, nails become stronger,  
 hair breakage and split ends minimized.

For inhalation, a 2-4% hydrogen gas mixture is typical because it is below the flammability level; however, some studies use 66.7% H<sub>2</sub> and 33.3% O<sub>2</sub>, which is non-toxic but flammable if concentrated. This is not a problem because the gas coming out of machines is immediately

diluted with room air. Even if one lights a match close to one's nose (not recommended) when using a hydrogen inhaler, it still would be rare to see a flame.

There are other methods to ingest or consume H<sub>2</sub>;

drinking hydrogen water using tablets that dissolve hydrogen into the water, injecting H<sub>2</sub>-dissolved saline (H<sub>2</sub>-saline), H<sub>2</sub> baths, and dropping H<sub>2</sub>-saline into the eyes.

Transdermal use of hydrogen and CO<sub>2</sub> can be beneficial, as are hydrogen IVs, at this point, is only being used in Japan and China.

### **SAFETY**

If you look hard enough, you will find someone who says, 'We do breathe hydrogen: only trace amounts of hydrogen (H<sub>2</sub>) are present in the air, so we shouldn't breathe more.' Or crazy things like 'Breathing pure hydrogen will kill you,' as if you could breathe pure hydrogen from any of these inhalation machines, which you cannot. Pure oxygen would kill you; that's why there is always CO<sub>2</sub> in oxygen cylinders.

Like in all devices, use caution. Read instruction books carefully before use. When using hydrogen-oxygen machines, extra caution is necessary, so follow instructions. Hydrogen and oxygen at a perfect mix (Stoichiometry) can explode, but that is not a problem with these inhalation machines. The mixture of gases gets diluted as one breathes in.

## References

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the cells in the body, including the brain, heart, kidneys, etc. Carbon dioxide (CO<sub>2</sub>) was found to be  
responsible for the bond between oxygen and haemoglobin.” – Dr. Alina Vasiljeva and Dr. David  
Nias. The Bohr Effect was first introduced, describing the oxygen-binding affinity of the hemoglobin  
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if the carbon dioxide concentration increases somewhere in the body, the hemoglobin molecule will  
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