



# Hydrogen Therapy Protocol Guide

Depending For What You Are Using Hydrogen  
Therapy For You Will Need Different Protocols.

In This PDF We Will Cover, What Protocol  
Is Best For Your Needs

# How long does it take to see the benefits of hydrogen/oxygen inhalation therapy?

The timeline for experiencing benefits from hydrogen/oxygen inhalation therapy can vary widely depending on several key factors, including:

- The flow rate of the machine (e.g. 600ml vs 3000ml per minute)
- The duration of each session
- How consistently it is used
- How gradually the user builds up to optimal daily usage (often 2–4 hours per day)

Some people may feel subtle improvements such as mental clarity, relaxation or better sleep within the first few sessions. However, for most people, the more significant and lasting benefits tend to build gradually over time with regular use. Hydrogen/oxygen therapy works by supporting the body at a cellular and mitochondrial level, reducing oxidative stress, regulating inflammation and restoring cellular communication. These processes don't produce instant results. Instead, they support deep biological shifts that unfold over a period of weeks and months.

In functional and integrative medicine, 90 days (around 3 months) is often cited as the average timeframe needed to achieve meaningful change in cellular and metabolic function. This is consistent with what we see in hydrogen therapy:

- Improvements in mitochondrial efficiency
- Reduction in chronic oxidative stress
- Upregulation of endogenous antioxidant systems (like glutathione, catalase, and SOD)
- Enhanced cellular repair and energy production

These biological upgrades require time and consistent exposure to therapeutic levels of hydrogen/oxygen. Hydrogen/oxygen inhalation is best thought of as a foundational support for long term healing and health maintenance, not a quick fix - it is a powerful tool for restoring health at its core.

# Hydrogen and Oxygen Protocols

## Key Benefits

- Some benefits (e.g. energy, sleep, relaxation) may appear within days or weeks for some users.
- Most people begin to notice clearer improvements after 2–4 weeks of daily use.
- Deeper metabolic and cellular changes typically require around 3 months of consistent use, especially when working toward recovery from chronic conditions.
- Using a higher-output machine and gradually working up to 2-4+ hours of daily inhalation can accelerate and deepen the therapeutic effects.

## Do not use Hydrogen/Oxygen therapy if:

- You are using ozone therapy at the same time (separate by several hours)
- You are in the acute phase of a stroke or brain bleed
- You have active seizures or unstable epilepsy
- You are experiencing severe respiratory distress (such as asthma attack)
- You are pregnant (especially first trimester – precautionary)
- Have severe electrolyte imbalance, dehydration or malnutrition

## Use with caution or professional guidance if:

- You have low blood pressure (hydrogen may slightly lower BP)
- You are undergoing chemotherapy or radiation (avoid on the same day)
- You have a pacemaker or implant
- You are a child or elderly person with complex health needs
- You are on immunosuppressant medication following an organ transplant
- Certain bacterial conditions such as SIBO, Helicobacter Pylori & sulfate reducing bacterial overgrowth

## Are there any medications that are contraindicated with hydrogen/oxygen inhalation therapy?

Hydrogen/oxygen inhalation therapy is generally safe for most individuals on medications. While there are no definitive contraindications, it is always recommended to consult with a healthcare professional before starting any new therapy, especially if you are on prescription medications, as it is possible that dosages may need to be adjusted.

# Protocol Overview

Hydrogen/Oxygen inhalation is an emerging health technology with rapidly growing interest worldwide. While scientific research continues to expand, there are currently no universally agreed-upon or officially standardised protocols for its use. This means that frequency, duration and flow rates are often determined by individual needs, goals and personal tolerance levels. To help our customers get started, we have created:

- A standard build-up protocol – suitable for most users, designed to help the body adapt gradually.
- A gentler, slower build-up option (The H<sub>2</sub>=E General Protocol) – intended for those who may be more sensitive, have chronic health challenges or simply prefer to take a more cautious approach.

Ultimately, how you use your machine is up to you. Some people choose to make hydrogen/oxygen inhalation part of their daily routine, while others prefer 2–3 sessions per week or occasional use as needed. The right approach will depend on your personal circumstances, goals and how your body responds. We encourage you to listen to your body, start gradually, and adjust your use over time. The flexibility of this technology allows you to tailor your routine to suit your individual needs.

## How are the starting times decided?

The starting times are based on how long each machine will take to saturate the tissues. Hydrogen dissolves and distributes rapidly in the body (blood, tissues and mitochondria), however, a more powerful machine such as a 3000ml machine will saturate the tissues quicker than less powerful machines

## Tissue saturation times

- 3000ml machine 5-10 minutes
- 1500 ml machine 10-20 minutes
- 1000 ml machine 20-30 minutes

# Protocols For General Application

Each treatment profile below can be personalized to the individual. The chart below is a general guideline to help you get started. Over time clients personalize the timing and frequency to their body.e.g. a professional athlete would need more compared to a amateur athlete, this can be fined tuned over time.

Treatment For	Flow Rate MI/ Min	Time Per Treatment	Frequency Of Treatment
Anti-Aging	1200 - 3000	30mins - 1 hrs	Daily or 5x / Week
Respiratory Support	1500 - 3000	30mins - 2 hrs	Daily or As Needed
After Surgery	1500 - 3000	1 - 2 hrs	Daily For 4 Weeks
After A Workout	1200 - 3000	30mins - 2 hrs	After a training session
General Wellbeing	900 - 3000	30 - 60 Mins	Daily or 5x / Week
Cardiovascular Support	1500 - 3000	45 Mins - 1 hrs	Daily or 5x / Week
Neurological Support	1500 - 3000	45 Mins - 1 hrs	Daily or 5x / Week
Flu/ Covid	1500 - 3000	45 Mins - 2 hrs	Daily or 5x / Week
Chronic Pain	1500 - 3000	1 - 2 hrs	3-5 days a Week
Emotional Stress Support	1200 - 3000	45 Mins - 1 hrs	Daily or As Needed

# slow and steady build-up protocol, for a chronic health Issue

Flow Rate MI/Min	3000	1500	1200
Day 1 Amount of Time	10 mins	20 mins	30 mins
Day 2 Amount of Time	25 mins	35 mins	45 mins
Day 3 Amount of Time	40 mins	50 mins	1 hour
Day 4 Amount of Time	55 mins	1 hr 5 mins	1 hr 15 mins
Day 5 Amount of Time	1 hr 10 mins	1 hr 20 mins	1 hr 30 mins
Day 6 Amount of Time	1 hr 25 mins	1 hr 35 mins	1 hr 45 mins
Day 7 Amount of Time	1 hr 40 mins	1 hr 50 mins	2 hours

## Day 8 and onwards

Increase up to 2-4 hrs. per day in 15min increments, this is spread throughout the day, once at this level is reached, please check with your health care practioner, for how long to maintain.

Sessions can be split into morning and evening if preferred. Look out for symptoms of detoxification Maintain good hydration.

This Protocol is for more chronic health issues, rather than the general therapy guide on the pervious page.



# Why split treatments into morning and evening sessions?

Hydrogen is rapidly used and exhaled by the body, so its anti-inflammatory, antioxidant and signalling effects are strongest during and shortly after each session. By dividing your daily inhalation time into morning and evening, you extend the period of cellular support across the day.



A morning session can help counter overnight oxidative stress, improve mitochondrial efficiency and promote mental clarity.

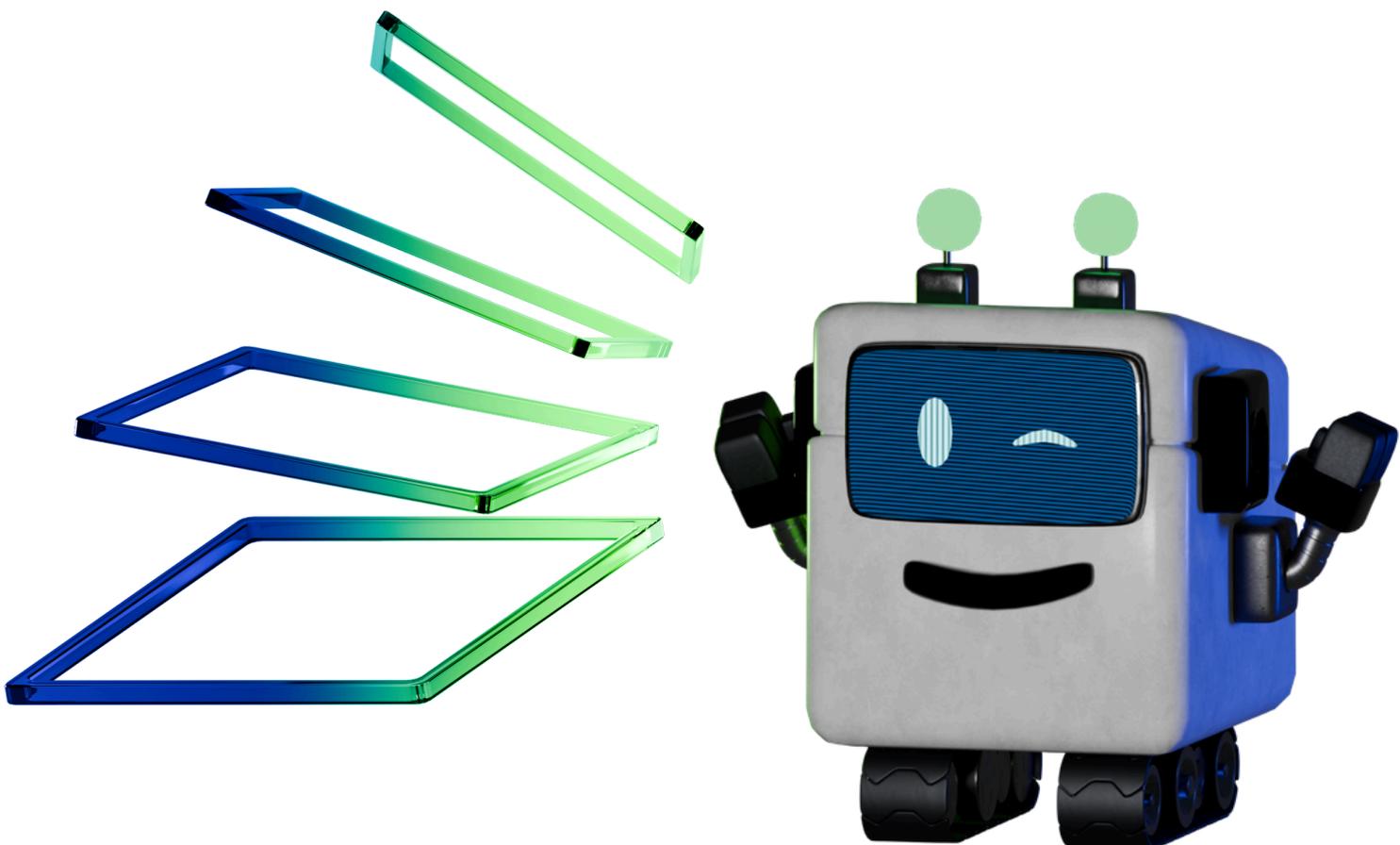


An evening session can reduce inflammation from daily activity, support tissue repair and help calm the nervous system for restful sleep. Please note a small percentage of people, breathing hydrogen and oxygen, gives a slight uplifting effect and for these people, it is best not before sleep.

This split approach can also make the therapy more comfortable for those building up their inhalation time by placing less strain on the body's detoxification systems.

# How long does Hydrogen stay in the body?

Molecular hydrogen has a relatively short biological half life once inhaled. Research suggests that hydrogen is still detectable in the blood for around 20-30 minutes after inhalation stops, assuming that saturation was achieved. However, the beneficial signaling effects it stimulates within the body may last longer. The short time-span that hydrogen remains in the body once therapy stops explains the rationale and clinical success behind utilizing longer sessions and also why having split treatments provides the most successful outcomes in people with more challenging health issues. The longer you spend on the machine the more you are exposing your body to the beneficial nourishing effects of hydrogen.



# Common detoxification symptoms to look out for

This is not a definitive list

Achiness • Dull ache in lower back • Loss of appetite • Disrupted sleep • Flaring up of existing health symptoms Headaches • Diarrhea • Fatigue • Nausea • Stiffness.

If these symptoms do come up, it is often only for a short period of time, and please follow the guidelines below if they do come up.

Symptom Level	Example	Action
Mild temporary and tolerable	Slight headache, mild fatigue, light skin breakout, mild digestive change	Continue at current dose or reduce session by 5–10 min. Drink more water and support detox with gentle movement and rest
Moderate uncomfortable but manageable	Ongoing headache, noticeable fatigue, increased aches, stronger skin reactions	Reduce session length by half or split into smaller sessions. Increase hydration, support detox organs and hold this reduced level until symptoms ease.
Severe – intense or interfering with daily life	Strong headache, extreme fatigue, dizziness, nausea, breathing difficulty	Stop sessions for 1–2 days, hydrate well, rest and restart at a much lower time. Seek medical advice if symptoms do not improve or are concerning.
Persistent – symptoms lasting more than 1 week without improvement	Any ongoing symptom that doesn't ease after reducing time	Try reducing the time to a lower dose, if necessary pause therapy until symptoms clear

# Conditions that may require a gentle approach:

## **Chronic low energy states (Chronic Fatigue Syndrome CFS/ME)**

- Their mitochondria are often under-functioning and pushing too much therapeutic stimulation too quickly (even something gentle like hydrogen) can lead to an energy crash.
- These individuals typically have reduced detoxification capacity, so even mild improvements in cellular repair and oxidative balance can release toxins or inflammatory metabolites faster than their liver, kidneys or lymphatic system can eliminate them.
- Autonomic Nervous System dysregulation is common in these individuals (e.g. overactive sympathetic stress responses), which can also affect their tolerance to therapies that influence cellular energy or redox signaling.

## **Lyme disease and co-infections**

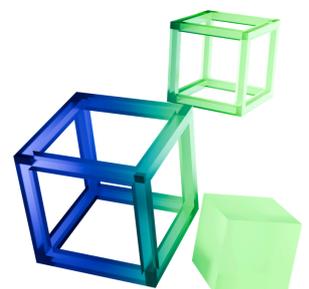
- These individuals often experience strong Herxheimer (die-off) reactions when the immune system begins clearing microbial toxins.
- Hydrogen/oxygen therapy can support immune function and detoxification but needs to be introduced slowly to prevent flare-ups.

## **Multiple Chemical Sensitivity (MCS)**

- The redox-sensitive systems in these individuals can be highly reactive. Even mild shifts in oxidative balance can trigger unwanted symptoms.
- These individuals often require ultra-low doses and very short sessions initially.

## **Mast Cell Activation Syndrome (MCAS)**

- Though rare, hydrogen/oxygen therapy may influence mast cell activity indirectly through redox pathways.
- A slow, well-observed introduction is prudent.



# Conditions that may require a gentle approach:

## **Chronic Lyme, EBV or stealth infections**

- Similar to CFS, these individuals may have dysregulated immunity and mitochondrial suppression.
- Slow therapeutic build up avoids triggering inflammatory or die-off reactions.

## **Long COVID / Post-viral fatigue**

- Similar mitochondrial and detoxification challenges as CFS.
- These users often benefit from alternating day therapy and shorter session times to start.

## **Autoimmune conditions (e.g. lupus, rheumatoid arthritis)**

- Hydrogen may help long-term by reducing oxidative stress, but too rapid an introduction may temporarily shift immune activity, leading to flare-ups

## **Severe adrenal exhaustion / HPA axis dysfunction**

- These people may respond well to hydrogen over time, but their threshold for change is very low, and even mild stimulation can temporarily dysregulate their cortisol and energy patterns.

If you are experiencing any of the listed conditions it is highly recommended that hydrogen/oxygen therapy is introduced slowly and carefully. We have created the H<sub>2</sub>=E General Protocol to help people achieve this Hydrogen therapy is gentle by nature, but in sensitive individuals, even small improvements in cellular function can create a temporary but overwhelming burden on the organs of elimination (liver and kidneys). This can lead to symptoms such as fatigue, headaches, brain fog, irritability or feeling “crashed” if the body is not able to keep up.

To avoid this, the H<sub>2</sub>=E General Protocol is based on the following principles: • Starting with small session times of between 10-30 minutes • Using alternate-day treatments • Increasing the time slowly whilst monitoring for symptoms of detoxification

# Conditions that may require a gentle approach:

Ensuring adequate hydration, sleep, movement and sunlight can all be supportive. Gently supporting the liver and kidneys with appropriate herbs can be helpful.

H2=E have created a Therapy Tracker, which allows you to monitor detoxification symptoms and their severity. Pushing ahead too quickly by inhaling large amounts of hydrogen/oxygen daily, can overwhelm the body's detoxification pathways, leading to a worsening of symptoms or compromising overall progress.

As a result, individuals with any of the conditions listed above often require a longer timeline before noticeable improvements are felt. In some cases, it may take several months or more of gentle, consistent therapy before a clear upward shift in energy and wellbeing becomes apparent.

## H2=E General Protocol

This general step-by-step protocol will help you to safely build up the time on your Hydrogen/Oxygen machine in a slower and gentler manner

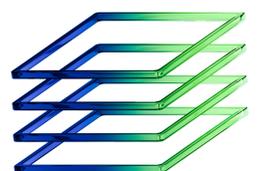
### Start with Small Doses

Begin gently with a small duration according to your machine's flow rate

- Hydro Medic / Immortal: 10 minutes per session
- Hydro Nova / Super Power: 20 minutes per session
- Hydro Gen / Vitality: 30 minutes per session

### Recovery

Have at least one day of recovery between sessions. Some users may require 2-3 days between sessions to allow the body to fully recover



## Monitor how you feel

Assess how you feel after each session, paying particular attention to whether you are experiencing any symptoms of detoxification. You may find our Session Tracker helpful for this.

The main symptoms to look out for are:

- Headaches
- Diarrhea
- Fatigue
- Nausea
- Stiffness
- Achiness
- Dull ache in lower back
- Loss of appetite
- Disrupted sleep
- Flaring up of existing health symptoms



## Gradually Increase Session Times

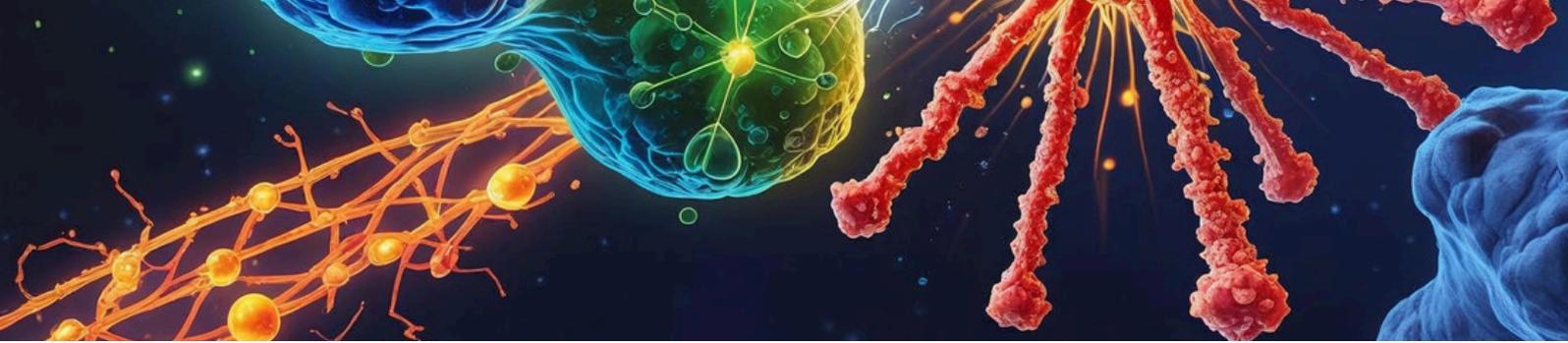
We suggest performing a block of 7 treatments, with a recovery day between each session. If you are able to complete this with no detox symptoms, then you can increase the time by 15 minutes. If you experienced mild detoxification symptoms, then you would not increase the time. Continue with treatments at the same duration for another 7 sessions - then reassess.

Only increase the time when you are free of any detoxification symptoms. If you experienced strong or severe detoxification symptoms, then you need to completely stop treatments and allow complete recovery to occur.

This may take anywhere from a couple of days to a couple of weeks. Then return to treatments at a reduced time duration.

## Increasing the time further

If you are trying to resolve a serious health condition, you may wish to keep repeating the process until you reach 2-4 hours. Please note that some people may never be able to reach 2-4 hours of inhalation. Remember, only increase the time if you are able to complete 7 sessions (with a recovery day between) without any detoxification symptoms. Each time you increase the duration, do so by 15 minutes. Ultimately, it is up to you how you use your machine, the H2=E General Protocol was designed to be for sensitive individuals who may be very weak or toxic and who need to be particularly cautious.



## Splitting the sessions

As sessions become longer it may be more convenient to break the treatment down into smaller chunks. For example, a 2-hour treatment could become two 1-hour treatments. It is up to you how the time is divided into smaller units; it might be that a session is broken down into 3 or 4 parts, which when added up give you the full duration.

Some people believe that breaking the session up into smaller parts increases the effectiveness of treatments and is also less taxing on the liver and kidneys which are the main organs of detoxification.

## Important Notes

- It is common for people with our 3000ml machine to think that 10 minutes is not going to be enough time to create a positive impact
- 10 minutes on the Hydro Medic or Immortal provides the same amount of Hydrogen/Oxygen gas to the body as 20 minutes on the Hydro Nova or 30 minutes on the Hydro Gen machines
- Don't ignore our advice about having a recovery day between treatments. It is important to allow the body time to process and recover from each session. A lot of healing occurs in the spaces between treatments.
- We have found that daily treatments over time can create a cumulative burden on the organs of detoxification - liver and kidneys.
- It is common to get stuck at a particular time, if you try to increase, you find yourself feeling unwell and end up returning to the previous time that worked for you. Some people may spend months with sessions that are relatively short and wonder why they can't progress.
- Remember that healing is not measured by how much time you can spend on the machine, it is about listening to your body and finding the correct amount of time that the body can tolerate, not pushing beyond your limits • The key is to work with the body, not against it!
- We do not want to punish the body with treatments; more is not necessarily better!



# Hydrogen Therapy Tracker

**EXAMPLE**

Date 4 August 2025      Duration of Session 30 minutes

## Pre session evaluation

Energy

Sleep Quality

Poor			Good				Excellent			
1	2	3	4	5	6	7	8	9	10	
1	2	3	4	5	6	7	8	9	10	

## Detoxification Symptoms



Headaches

Diarrhea

Fatigue

Nausea

Stiffness

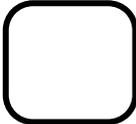
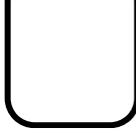
Achiness

Disrupted Sleep

Loss of Appetite

Flaring up of existing health symptoms

Dull ache lower back



	Mild			Moderate				Severe			
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		

## Notes

I noticed some mild detox symptoms, yet sleep quality has improved, woke up feeling more positive



# Hydrogen Therapy Tracker

Date	Duration of Session
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## Pre session evaluation



Poor			Good				Excellent			
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0

## Detoxification Symptoms













Mild	Moderate				Severe					
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0
1	2	3	4	5	6	7	8	9	1	0

### Notes

# Guidelines for Children

Important note These recommendations are intended as general guidance for use. Many parents may consider using hydrogen/oxygen inhalation for children with health challenges; in such cases, it is important that use is closely supervised and ideally guided by a qualified healthcare professional. We cannot provide medical advice and any therapeutic application should be undertaken with appropriate medical support

- Always use a nasal cannula (not mask) to avoid oxygen displacement.
- Use should always be supervised.
- Session times should remain short.
- Always begin at the lower end of the range.
- Increase time slowly & only if the child is comfortable.
- Children's systems are sensitive – 'less is more'.
- Multiple short sessions are preferable to one long one.
- Stop immediately if the child shows discomfort, dizziness, irritability or unusual tiredness.

## Weight Bands for Children

20kg (under 3st 2lb) small child, usually under 6 years

- 3000ml/min → 5 minutes max at full flow. Can repeat once later in day.
- 1500ml/min → 5 to 10 minutes
- 1200ml/min → 5 to 10 minutes Daily max exposure: 10 to 15 minutes total

20 to 35kg (3st 2lb to 5st 7lb) medium child, usually 6 to 11 years

- 3000ml/min → 5 to 10 minutes to start, build to 20 minutes
- 1500ml/min → 10 to 15 minutes to start, build to 25 to 30 minutes
- 1200ml/min → 10 to 15 minutes to start, build to 25 to 30 minutes Daily max exposure: 20 to 30 minutes total

35 to 50kg (5st 7lb to 7st 12lb) older child / young teen

- 3000ml/min → 10 minutes to start, build to 25 to 30 minutes
- 1500ml/min → 10 to 15 minutes to start, build to 30 to 35 minutes
- 1200ml/min → 15 minutes to start, build to 30 to 40 minutes Daily max exposure: 30 to 40 minutes total >

50kg (over 7st 12lb) teenager / adult-sized

- Use the adult Standard Build-up Protocol Daily max exposure: Can work towards 40 to 60 minute sessions if comfortable

# Hydrogen/Oxygen Inhalation While Sleeping

Hydrogen/oxygen inhalation therapy has been demonstrated to have powerful antioxidant and anti-inflammatory effects, and many people are wanting to know if they can use this therapy during the night? The answer is yes, but there are a few considerations that need to be mentioned. Why Consider Nighttime Use?

1. **Time-Efficient & Convenient** Many of us have busy lifestyles and inhalation of hydrogen/oxygen whilst sleeping can offer a convenient way to add this therapy to your day without having to allocate time away from other activities.

2. **Supports the Body's Natural Repair Cycle During sleep**, the body is in repair mode. Hydrogen and oxygen may assist with:

- Mitochondrial efficiency
- Inflammation control
- Detoxification
- Nervous system balance

3. **Longer Sessions** = Better Results Hydrogen therapy works cumulatively over time. Sleep-based sessions allow extended exposure, often leading to deeper results, especially for chronic conditions. Nighttime Use Isn't for Everyone While many people will benefit from nighttime therapy, some individuals should approach with extra caution or avoid overnight use altogether. Situations Where Overnight Use May Be Contraindicated

- Very sensitive or toxic individuals prone to strong detox symptoms
- Chronic fatigue syndrome or adrenal insufficiency (initially may not tolerate long sessions)
- People with disturbed sleep patterns or insomnia
- Sinus congestion or nasal blockage (nasal cannula may be uncomfortable or ineffective)
- People who mouth breath during sleep
- People who snore

## Also Consider

For a small number of people, breathing hydrogen and oxygen, slightly stimulates their energy, so if you are in this small number of people, breathing hydrogen and oxygen at night is not best for you.

# You Don't Need to Run the Machine All Night

You don't have to inhale hydrogen/oxygen all night to gain benefit. Our machines allow you to set a treatment time and will switch off automatically. Depending on your machine, the maximum duration the timer will allow will vary.

- Hydro Medic 24 hours
- Immortal: 4 hours
- Hydro Nova 8 Hours
- Super Power: 4 hours
- Hydro Gen 8 hours

**Start Gently & Build-up** Just like daytime use, build up your time slowly, especially if you are new to hydrogen/oxygen therapy or have chronic illness. Before using during the night, ensure that you have used the machine whilst awake and are able to tolerate at least two hours of use before using during the night. When used during the night you can gradually build-up the time. We suggest increasing the time in 30-minute increments Listen to Your Body Each person's tolerance is different.

**Watch for Detox Symptoms:**

- Headache
- Fatigue or fogginess
- Upset digestion
- Skin eruptions
- Disrupted sleep

These can indicate the body is clearing toxins faster than it can process them. If this occurs: • Reduce session length • Take rest days • Increase hydration and liver support • Consider using every other night. Finding your personal "sweet spot" is more important than maximizing usage time.

**Summary**

Inhalation during sleep can be a convenient way to add hydrogen/oxygen therapy to your day. It allows for longer sessions, supports natural recovery and works while you are resting.

# Core Recommendations

**1. Use a Single-Piece Cannula (Avoid Extensions)** We recommend avoiding cannula extensions wherever possible. Extensions introduce potential leak points, affect gas delivery consistency and increase condensation. Instead, use a single-piece, medical-grade silicone cannula of appropriate length.

**2. Don't Exceed 2.5 Meters in Cannula Length** We advise limiting cannula length to 2.0–2.5 meters max. Longer tubing may: Reduce gas delivery efficiency. Cause the gas pressure to drop. Raise the chance of tangling or condensation buildup.

## Safety Guidelines for Overnight



- Use Ensure Good Ventilation
- Always use the machine in a well-ventilated room.
- Hydrogen will always build up in the room where the machine is being used. So, when using the machine for extended periods of time it becomes more important to ensure good ventilation. Simply having a window open would be adequate but ensure that curtains are not blocking ventilation Ensure the room is not overly hot H<sub>2</sub>=E machines are designed for long-duration use but should not be run in overheated or stuffy spaces. Ideally, keep the room cool and well-aired during use.

## Machine placement

- Place the machine on a stable bedside table or on the floor
- Keep tubing clear of bedding to avoid tangling
- Use soft cannulas made for long-term comfort (ideally silicone) Ensure that the cannula has a Water Trap To prevent condensation issues in the cannula, which can become an issue with very high output machines especially when used for long durations, it is important to ensure that the cannula has a Water Trap - which traps condensation and prevents the user breathing in water droplets which can be uncomfortable. You Don't Need to Run the Machine All Night You don't have to inhale hydrogen/oxygen all night to gain benefit.

# Using the Water Stone to Make Hydrogen Water



You can add a diffusion stone to our hydrogen inhalation machines to make hydrogen water. Hydrogen gas dissolves into water until it reaches its maximum saturation of around 1.6 ppm or 1.6 mg/L. The speed at which this saturation happens depends on your machine's gas output

- 3000ml machine it will take 1 minute
- 1500ml machine it will take 2 minutes
- 1000ml machine it will take 3 minutes

Once saturation is reached additional time will not increase the hydrogen any further.

At maximum saturation, a 250ml glass of hydrogen water contains around 0.4 mg of dissolved hydrogen gas.

Hydrogen does not stay dissolved in water for long. Once your water has reached maximum saturation, the hydrogen begins to escape almost immediately. We recommend drinking it straight away (within 1–2 minutes)

## Benefits of Drinking Hydrogen Water vs. H<sub>2</sub> Inhalation

Your digestive system is like an internal cavity or space; this is where hydrogen water has the edge over breathing hydrogen. Yet breathing hydrogen has the edge in getting hydrogen into the blood system, lungs and brain and also getting therapeutic levels of hydrogen into the body.

Our recommendation is that if you're looking to get the full benefits of hydrogen therapy, is that you do both, for example you could start the day with a glass of hydrogen water, and later in the day while working at your desk, breath in hydrogen and oxygen for one hour.

# Therapies That Should NOT Be Used Simultaneously with Hydrogen Therapy

As hydrogen and hydrogen/oxygen inhalation therapy gains popularity for its powerful antioxidant and anti-inflammatory effects, many people are asking: "Can I combine hydrogen therapy with other holistic treatments?" The short answer is: Yes, but with awareness and timing. While hydrogen therapy is extremely safe and versatile, certain other therapies, especially those that create oxidative stress or strong energetic inputs, may require spacing or sequencing for best results.

What we find is many health enthusiasts, often do too much, many times less is more.

Therapy	Combine During	Good Before	Good After	Recommended Time Gap
Ozone Therapy				Wait 6 hours or more
Hyperbaric Oxygen Therapy				Wait 6 hours or more
PEMF				Wait 1 hour or more
Sauna				Wait 2 hours or more
Vitamin Infusions				Wait 6 hours or more

Spacing these therapies correctly supports your body's natural rhythms and helps avoid energetic overload or therapeutic contradiction.

# Therapies That Work Well Alongside Hydrogen Therapy

Many holistic approaches can be used safely at the same time you are inhaling hydrogen/oxygen - or be used directly before/after.

These Include

- Red/NIR light therapy (especially before hydrogen to support mitochondria)
- Grounding/Earthing
- Massage, Bowen or Fascia Therapy
- Somatic movement
- Yoga and meditation •
- Breath-focused vagus nerve work
- Low-dose herbal adaptogens or minerals



These tend to complement hydrogen's calming and restorative effects, making them a great pairing in most protocols.

## Why Timing Matters

Hydrogen reduces oxidative stress. Ozone, HBOT and detox therapies increase it (intentionally). Used correctly, these therapies can complement each other, but when used at the same time, they may either:

- Cancel each other out, reducing their effectiveness
- Overwhelm the body, especially if you're sensitive or detoxing

Hydrogen therapy shines when the body is not under acute stress - it helps the nervous system shift into rest, repair and regeneration.

## Overview

Hydrogen therapy is compatible with many holistic treatments, but timing is important

- Avoid using it simultaneously with oxidative or detox-heavy therapies like ozone or HBOT.
- Space out your sessions by at least a few hours and listen to how your body responds.
- When in doubt, consult a qualified holistic practitioner or integrative therapist familiar with hydrogen and its interactions with complimentary treatments.

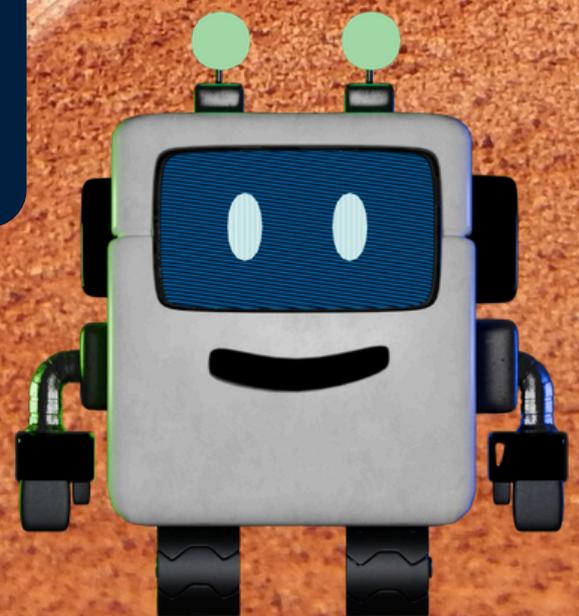
# Unlocking Athletic Recovery and Longevity with Hydrogen/Oxygen Inhalation

Whether you're a competitive sprinter, weekend warrior, or over-50 athlete determined to stay strong and agile, recovery is everything. No matter how smart your training program is, your gains depend on how well your body repairs, rebuilds, and balances inflammation. That's where hydrogen/oxygen inhalation therapy can play a transformative role, especially for athletes who value long-term performance, vitality and cellular health.

Recovery is no longer just about rest and sleep. It's about accelerating repair, reducing oxidative stress and protecting your mitochondria - the engines that fuel your movement. As you age, your recovery window widens. Inflammation lingers longer. Muscle soreness increases. Energy takes longer to bounce back. Hydrogen/oxygen therapy offers a simple, science-backed strategy to:

## Key Benefits

- Accelerate muscle recovery
- Reduce post-exercise inflammation
- Support mitochondrial function
- Protect against oxidative stress
- Enhance cognitive clarity and mood



# Scientific Foundations: What the Research Says...

Hydrogen gas (H<sub>2</sub>) has been shown in numerous peer-reviewed studies to exert selective antioxidant effects, neutralising harmful free radicals (like hydroxyl radicals) while leaving helpful reactive species intact. Here are a few highlights:

- **Reduced Muscle Fatigue and Inflammation** A 2012 study published in *Medical Gas Research* found that hydrogen-rich water reduced blood lactate levels and improved exercise-induced decline in muscle function.<sup>1</sup>
- **Antioxidant and Anti-inflammatory Effects** A 2010 study in *Free Radical Research* showed that hydrogen gas has powerful anti-inflammatory and antioxidant effects, improving outcomes in oxidative stress conditions.<sup>2</sup>
- **Mitochondrial Protection and Energy** Hydrogen therapy helps preserve mitochondrial function under stress, which is crucial for endurance and power output.<sup>3</sup>

## Benefit

**Faster Recovery**

**Antioxidant Protection**

**Muscle Integrity**

**Mental Clarity**

**Better Sleep**

**Mitochondrial Resilience**

## Explanation

Reduces lactic acid, inflammation and soreness after training

Selectively neutralises harmful free radicals without disrupting redox balance

Supports cellular repair and reduces damage from high intensity workouts

Improves mood, focus, and recovery from neurological fatigue

Enhances rest cycles and nervous system recovery

Protects energy systems for sustained performance

# Why Older Athletes Benefit Even More

For older athletes, the recovery curve is longer. Inflammation tends to be more chronic. Tissue repair slows down. But hydrogen/oxygen inhalation helps counteract many of these age-related challenges.

- Protects against cumulative oxidative stress
- Enhances tissue oxygenation
- Improves joint comfort and mobility
- Supports cardiovascular function
- Aids hormonal balance and mood stability

Hydrogen doesn't just support athletic goals - it reinforces the foundation of health and longevity, allowing athletes to train more consistently and with less risk of breakdown.

## Here's a simple inhalation protocol for athletes of all ages:

Timing is ideally within 1 hour of training. The length of time varies depending how hard you trained and what size machine your using, roughly it is going to be one hour of breathing hydrogen after a training session. The chart on the next page goes into more detail.

The result most people report from breathing in the hydrogen after a training session is around 50% less muscle aches the following day.



# Which Flow Rate Is Right for You?



## Flow Rate & Time

## Best For You

**1200ml**  
**1 to 2 hours**

Moderate athletes, yoga and low-impact training, maintenance-level support

**1500ml**  
**1 to 2 hours**

Competitive amateurs, strength training, consistent physical performance

**3000ml**  
**1 hour**

High-performance athletes, sprint/power recovery, chronic inflammation support



Tip: Higher flow rates don't necessarily mean "better" for everyone - they simply deliver more hydrogen and oxygen per minute. Choose based on your goals, tolerance and experience.

Final Thoughts: Strong Recovery Builds Strong Athletes If you want to run faster, lift more, or simply feel younger, your recovery needs to match the intensity of your training. Hydrogen/oxygen therapy offers a unique combination of cellular repair, oxidative stress reduction and nervous system support - giving your body the tools to regenerate, not just rest.

And remember: performance isn't just about muscle. It's about the whole system - lungs, brain, heart, joints, fascia and mitochondria. Which is why supporting your foundational health with hydrogen/oxygen could be the missing link in your competitive strategy.

Let recovery become your competitive edge!

References:

1. Aoki, K. et al. (2012). Effect of hydrogen-rich water on oxidative stress and muscle fatigue. *Medical Gas Research*, 2(12).
2. Ohsawa, I. et al. (2007). Hydrogen acts as a therapeutic antioxidant by selectively reducing cytotoxic oxygen radicals. *Nature Medicine*.
3. Dole, M. et al. (1975). Hyperbaric hydrogen therapy: A possible treatment for cancer. *Science*, 190(4210), 152-154.



# Breathe Health, Breathe Molecular Hydrogen

With our molecular hydrogen machines, every inhalation becomes a moment of profound well-being.

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