

Choosing the right machine

Interest in **hydrogen** and hydrogen/oxygen therapy is **growing** rapidly, and with so many devices on the market, it's natural to wonder which one will be best suited to your needs.

We receive this question almost daily from people who are keen to experience the **benefits** of this emerging wellness technology, but also want **clarity** before making a decision.

While we cannot make any medical claims or suggest that our machines can treat or cure any specific illnesses, we can however help you to understand the **key differences** between our models so that you can make a more informed choice based on your **goals**, **lifestyle** and **budget**.

When we first began offering hydrogen inhalation devices, our range consisted of devices that produced only **pure hydrogen** (without oxygen) with output flow rates of **120 ml/min** and **600 ml/min**.

Research suggests that inhalation at **120–150 ml/min** is where measurable **therapeutic effects** start to appear, making these excellent entry point machines for people in good health who simply wish to add hydrogen to their daily routine.

At that time, **600 ml/min** was considered a very powerful machine, delivering five times the output of the smaller model.

However, these early devices lacked the advanced features that have since become available.

Our original machines lacked the ability to **detect water quality** or remind you to **top up the water tank** and had fewer safeguards to ensure consistent performance.

As new technology became available, we tested a wide range of devices from reputable manufacturers.

We chose our current manufacturer for several important reasons:

- We wanted machines that could deliver a combined **Hydrogen + Oxygen** output for broader potential benefits.
- Higher **flow rates** up to 3000ml/min
- Intelligent 'smart' built in **safety features** for easier use.
- Proven **track record** in the hydrogen industry — avoiding “overnight” brands.
- Robust **build quality** for durability and reliability.

Overview of key features

Model	Immortal	Super Power	Vitality
Output Flow Rate	3000ml/min & 1500ml/min	1500ml/min	1000ml/min
Output Rating	Very High	High	Medium
Hydrogen/Oxygen ratio	2:1	2:1	2:1
Hydrogen Output	2000 & 1000	1000	666.6ml/min
Oxygen Output	1000 & 500	500	333.3ml/min
Hydrogen Purity	99.9%	99.9%	99.9%
Weight (Without water in tank)	13.5kg	13.5kg	11kg
Size (cm) L x W x H	51 x 25 x 39	51 x 25 x 39	39 x 25 x 39
Timer	4 hours	4 hours	4 hours
Size of water tank	2.6L	2.6L	2.6L
Build Quality	Heavy duty Passed Drop Test	Heavy duty Passed Drop Test	Heavy duty Passed Drop Test
Portability	Wheels + Handles	Wheels + Handles	Wheels + Handles
Noise Level	Quiet	Quiet	Quiet
Humidifier Bottles	Glass	Glass	Glass
Screen	Large colour touch screen	Large colour touch screen	Large colour touch screen
Shell	Stainless steel	Stainless steel	Stainless steel
Hydrogen Technology	Proton Exchange Membrane (PEM)	Proton Exchange Membrane (PEM)	Proton Exchange Membrane (PEM)
Water Required	Distilled or De-ionised water with 0-1ppm	Distilled or De-ionised water with 0-1ppm	Distilled or De-ionised water with 0-1ppm
CE quality certified	Yes	Yes	Yes

Choosing the right machine

We offer 3 hydrogen/oxygen inhalation machines

- **Immortal** – output flow rate of 3000 ml/min
- **Super Power** – output flow rate of 1500 ml/min
- **Vitality** – output flow rate of 1000 ml/min

The **Immortal** is our most powerful machine with a gas output flow rate of 3000ml/min

How quickly tissue saturation occurs

Most of the studies have focused on how quickly blood levels become saturated, which is not the same as tissue saturation (cells, lymph and organs), which can take a little longer to achieve.

It appears that with machines operating with an output above 1000ml/min that the level of hydrogen in the blood **plateaus** within around 10-30 minutes, depending of the **flow rate** and **size** of the person.

Blood saturation times

- Immortal 3000: **around 10-15 minutes**
- Super Power 1500: **around 15-20 minutes**
- Vitality 1000: **around 20-30 minutes**

If you are looking for maximum hydrogen intake in the shortest possible time, the Immortal can allow you to reach tissue saturation in roughly 10 minutes and complete a 30 minute treatment before a less powerful Vitality machine has even reached saturation.

The Immortal is a popular with clinics, athletes and people who want a really powerful hydrogen/oxygen treatment, but also want to keep their session times to no more than an hour.

The Immortal is going to provide the body with significantly more hydrogen/oxygen in an hour than the less powerful machines.

Why the **Immortal** is used for serious health conditions?

A review of recent human studies, over the last 3 years, show that devices with a combination of hydrogen/oxygen in a 2:1 ratio and an output of 3000 ml/min are by far the most commonly specified machines – this is the specification of our Immortal.

China leads the way in clinical implementation, where there are numerous hospitals incorporating hydrogen/oxygen therapy for the treatment of many health conditions, including respiratory issues, cancer, type 2 diabetes and covid-19.

When it comes to using hydrogen/oxygen for more **serious health conditions**, **3-4 hours** or more each day is the protocol that many **medical case studies** are showing provides the best results.

If you cant afford the Immortal

In theory, once **saturation** has been reached, less powerful machines can maintain tissue saturation as easily as a more powerful machine.

To put things into context, if a session was 3 hours long

- **Immortal** – Saturation occurs in roughly **10mins** & is maintained for **2hrs 50mins**
- **Super Power** – Saturation occurs in roughly **20mins** & is maintained for **2hrs 40mins**
- **Vitality** – Saturation occurs in roughly **30mins** & is maintained for **2hrs 30mins**

When sessions become **longer than 1-hour** there is not that much difference between the machines when viewed only on the basis of tissue saturation.

However, at the time of writing there are many aspects of hydrogen/oxygen therapy that we don't have any **scientific research** to draw on.

At present there are no studies that have **compared** the treatment effectiveness of **different** flow rates on **health** conditions in humans.

Improvements in **inflammation**, **oxidative stress**, **fatigue** and **recovery** have been documented across **different** flow rates. However, it is yet to be established if higher flow rates are superior or if there is an optimum flow rate.

We have listed below some of the possible **reasons** why the **Immortal** may be getting superior results and is the **machine of choice** for serious health conditions.

Split treatments

- Many of the case studies do not use the machine for 3-4 hours continuously; they often break them up into **morning** and **evening** treatments.
- This means that the less powerful machines are going to be at a disadvantage as they will need to spend time building back up to the **saturation** point a second time.

Higher sustained blood concentration:

- A 3000ml/min flow delivers more hydrogen per breath, raising **alveolar concentration** compared with 1500ml/min or 1000ml/min flow
- This could lead to a slightly higher steady-state **blood concentration**
- This may help hydrogen to penetrate **harder to reach tissues** (such as poorly vascularized areas & lymph)

Respiratory dilution factor:

- An average person will inhale around 6-8 Litres of air per minute
- When using a hydrogen/oxygen machine this inhaled air is mixed with the hydrogen/oxygen delivered by the device
- A 3000 ml/min machine **displaces a larger amount** of that inhaled volume with hydrogen, **raising** the percentage concentration they are actually inhaling.
- So even after reaching saturation the 3000 ml/min could maintain a **higher inhaled percentage** and potentially keep tissues at the top end of the therapeutic range.

Clinical observations:

- Practitioners commonly report that patients with **severe illnesses** (such as cancer & neurological diseases) respond better with higher-output machines.
- This hasn't been proven in controlled trials, but it appears that **higher intensity may produce stronger outcomes**.

While both lower and higher-output machines maintain saturation over longer sessions, a 3000 ml/min device, such as the Immortal, appears to provide a range of additional advantages when it comes to more severe health challenges.

It is expected that as more research is conducted over the next 5 to 10 years that we will be able to better understand how to maximise and harness the true potential of this therapy.

MACHINE COMPARISON CHART

Hydrogen Oxygen Machine

Machine Model	Output (ml/min)	Best For You	Benefit Overview
Vitality	1000	Everyday wellness	Supports energy, sleep and recovery
Super Power	1500	Active Lifestyle	Faster recovery, mild health issues
Immortal	3000	Athletes & Serious Health	Maximum therapeutic support rapid results

Some final thoughts to help you decide

Research shows that higher flow rates will saturate the blood and tissues faster than lower output machines

However, once the blood is saturated, it can be maintained just as easily with a 1000ml/min machine as a 3000ml/min one.

Most of the early hydrogen research, from around 2007 to 2015, was conducted at relatively low flow rates (120 to 600ml/min), as this was the limit of the technology at the time.

An early hydrogen machine with an output of 300ml/min would potentially require an hour to saturate the blood, however, these studies consistently showed significant benefits.

More recent research, particularly in hospitals and clinical case studies, have tended to use higher output devices (3000ml/min) which are combined with oxygen in a 2:1 ratio.

This change has been made possible by more advanced technology and while this doesn't prove they are more effective than lower flow rates, it does mean that the strongest body of evidence to date is associated with the higher-output devices.

As hydrogen is a relatively new and emerging health modality, research has not yet been conducted that compares the impact of different flow rates on human health conditions.

Choose Immortal (3000 ml/min) if you:

- Want the highest and most stable hydrogen/oxygen inhalation
- Want shorter treatment sessions
- Are an athlete or sports player performing at a high level and looking to improve recovery times
- Run a therapy practice and need reliable hydrogen/oxygen delivery across different clients and breathing patterns.
- Have a challenging health condition

Choose Super Power (1500 ml/min) if you:

- Want a balanced, do-everything home machine.
- Have the time to sit a bit longer to reach tissue saturation but still want strong performance.
- Prefer a mid-range price without a big compromise on effectiveness.

Choose Vitality (1000 ml/min) if you:

- Are budget-conscious and want a quality machine for home use
- Don't mind longer sessions to achieve tissue saturation
- Healthy and looking for a home machine that will support health & longevity.