

HBO & THE BRAIN

**The brain is 2% of our bodyweight
but uses 20% of our oxygen.**

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Hyperbaric oxygen and the brain

HBOT's ability to deliver oxygen to hard-to-reach areas is one of the reasons that it is being explored as a potential treatment for various conditions, including certain neurological disorders. There is published literature supporting using hyperbaric oxygen for several neurological conditions.



Hyperbaric oxygen has been clinically proven to

- ✓ Reduce cerebral edema
- ✓ Reduce neuroinflammation
- ✓ Increase oxygen saturation to the brain
- ✓ Promote new blood vessel growth (angiogenesis)
- ✓ Reactivate idling neurones within the most oxygen deficient areas of the brain

HBO means that oxygen can be delivered to the recesses of the brain which may have been hindered anatomically before. There is published literature supporting the use of hyperbaric oxygen for several neurological conditions. Hyperbaric oxygen may dramatically and permanently improve symptoms of chronic neurological conditions months or even many years after the original head injury, which argues the idea within the typical medical establishment that brain damage cannot be repaired. SPECT scans from case studies across the globe show a clear indication that hyperbaric oxygen may repair neurological damage even decades after an injury, bringing macroscopic areas of cortex back “on-line”. This is followed by striking changes in the patient’s functioning and demeanour with a significant increase in quality of life. The benefits brought about by hyperbaric oxygen are generally permanent.

Compelling case reports are also seen in terms of Alzheimer’s disease where the patients progressiveness has been improved to some extent by hyperbaric oxygen. It seems that a maintenance schedule of perhaps a few sessions per week may slow down and in some cases, appears to prevent progression.

Evidence suggests that hyperbaric oxygen may bring about dramatic improvement in many neurological conditions for which we have had very little to offer other than palliative care.

In an experimental study in which the group used hyperbaric oxygen to help alleviate traumatic brain injury, it was concluded that hyperbaric oxygen demonstrates neuroprotective effects without increases oxygen toxicity. The mechanism for this is

suggested to be improved tissue oxygenation and cellular metabolism, anti-inflammation, anti-apoptosis and promoting neurogenesis and angiogenesis. These key factors suggest that hyperbaric oxygen should be considered in the future to treat traumatic brain injury and other neurological diseases.

The Sagol Center for Hyperbaric Medicine and Research at Shamir Medical Center recently announced a peer-reviewed study that demonstrated for the first time that hyperbaric oxygen may significantly enhance cognitive performance of healthy older adults. Professor Shai Efrati, a leader in hyperbaric oxygen research, stated that “In our study, for the first time in humans, we have found effective and safe medical intervention that may address this unwanted consequence of our age-related deterioration.”

The studies primary endpoint included a change in cognitive function and cerebral blood flow evaluation.

The researchers have demonstrated that the combined action of delivering high levels of oxygen (hyperoxia) and pressure (hyperbaric environment), leads to significant improvement in tissue oxygenation while targeting both oxygen and pressure sensitive genes, resulting in restored and enhanced tissue metabolism. Moreover, these targeted genes induce stem cell proliferation, reduce inflammation and induce generation of new blood vessels and tissue repair mechanisms.

Multiple clinical studies published in recent years present promising results that indicate hyperbaric oxygen might be a fruitful neurotherapeutic method for brain repair. New trials provide convincing evidence that HBOT may induce cerebral plasticity leading to the repair of chronically impaired brain functions and improved quality of life in post-stroke patients, even years after the brain insult. Hyperbaric oxygen is proving to be a potent means of delivering sufficient oxygen to the brain for the activation of neuroplasticity and restoration of improved functions. At the cellular level, hyperbaric oxygen improves cellular metabolism, reduces apoptosis, alleviates oxidative stress, and increases the levels of neurotrophins and nitric oxide through enhancement of mitochondrial function in both neurons and glial cells, and may even promote neurogenesis of endogenous neural stem cells.

View the Studies

See What the Team Are Saying

Overview of the Advanced Brain Care Program



The Wellness Lab®
HYPERBARIC OXYGEN

Hyperbaric Oxygen Ozone Therapy Hydrogen Photobio-Modulation IV Drips
Chiropractic Services Holistic Aesthetics Health Conditions Blog

BOOKING & PRICES

Injury With Hyperbaric Oxygen Therapy



<https://www.psychiatrictimes.com/view/treatment-traumatic-brain-injury-hyperbaric-oxygen-therapy>

Chronic
Conditions

IV Drips

Hyperbaric
Oxygen

VIEW

Hyperbaric oxygen therapy for traumatic brain injury: bench-to-bedside



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5110132/>

New hyperbaric oxygen therapy protocol can improve cognitive function of older adults



<https://www.sciencedaily.com/releases/2020/07/200715123143.htm>

Reflections on the neurotherapeutic effects of hyperbaric oxygen



Hyperbaric Oxygen For Sudden Hearing Loss

Glutathione IV: A Natural Approach To Managing Menopause Symptoms

How
Hyperbaric
Oxygen can
help with
Sudden
Hearing Loss
Hyperbaric
Oxygen is an
effective
emerging
adjunct
therapy for
Sudden
Sensorineural
Hearing Loss
(SSNHL).
Historically,
managing...

What is
Glutathione?
Glutathione is
known to be
one of the
most potent
antioxidants
and
detoxifiers,
protecting
cells from
damage and
ageing. It is
a...

March 1, 2024

July 12, 2024

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Email Address *

Phone Number *

Best time to contact me *

Tell us more about you and any medical condition *

0 / 180

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In accordance with UK and EU legislation, we confirm that there is no intention implied or otherwise that Hyperbaric Oxygen is administered with the intention of it being a cure or as a preventative for any disease. Any references, studies or articles cited in this document do not imply that similar results will occur when the same treatment is experienced by another.

Please note that although the use of Hyperbaric Oxygen has been established in the treatment or management for a variety of indications, the evidence for its use remains uncertain which means that it is not proven by “randomized prospective controlled clinical experiment or trial” or “double blind study” which is considered to be the strongest form of scientific evidence by conventional medical standards.