

Hyperbaric Oxygen Therapy

***The body is capable of healing itself when it has what it needs.
There is NOTHING the human body needs more than OXYGEN.***

HOW IMPORTANT IS OXYGEN?

Oxygen is extremely important for the body because it is needed for vital cell functions. Healthy cells build healthy tissues and organs. It is not until severely compromised body tissues receive oxygen and blood circulation that the healing process may occur.

Research suggests and has shown Hyperbaric Oxygen Therapy is beneficial in treating people who have suffered from the following conditions:

- ADD/ADHD/PERVASIVE DEVELOPMENTAL PROBLEMS
- AUTISM
- CEREBRAL PALSY
- ALS
- ALZHEIMER'S & MEMORY LOSS
- ANEMIA
- ANTI-AGING & WELLNESS
- ARTHRITIS
- ASTHMA/ALLERGIES
- BELL'S PALSY
- BRAIN INJURIES (OLD AND NEW)
- BONE GRAFTS
- CANCER
- CANDIDIASIS
- CHEMO BRAIN
- CHRONIC FATIGUE SYNDROME
- CHRONIC STROKE
- CHRONIC SKIN ULCERS
- CIRRHOSIS/ HEPATITIS
- CORTICAL BLINDNESS
- DOWN SYNDROME
- DEAFNESS, SUDDEN
- DEPRESSION
- DIABETES
- DIFFICULTY BREATHING / EMPHYSEMA
- FIBROMYALGIA
- GASTRIC ULCER
- HEART DISEASE
- HEATSTROKE
- INFECTION OF SKIN OR BONE
- IMMUNE DEFICIENCY
- KNEE REPLACEMENT
- LUPUS
- LYME DISEASE
- MIGRAINE HEADACHES
- MULTIPLE SCLEROSIS
- NEUROLOGICAL INSUFFICIENCIES
- PARKINSON'S DISEASE
- POST POLIO SYNDROME
- PRE/POST-SURGERY
- PREGNANCY/CAESAREAN
- RADIATION INJURY
- SEVERE INJURIES
- SKIN GRAFT OR SKIN FLAP
- SPINAL CORD INJURY
- SOFT TISSUE & WOUND HEALING
- SPORTS INJURIES
- STROKE & HEAD INJURIES
- VISION LOSS

Hyperbaric Oxygen Therapy (HBOT) is a highly specialized treatment where air and oxygen are breathed at pressures above normal atmospheric pressure. Under normal circumstances, oxygen is only able to be transported throughout the body when bound to red blood cells.

In a HBOT chamber, the increase of atmospheric pressure compresses ambient air and allows more oxygen (O₂) to be dissolved into blood plasma and other liquids of the body. This means at pressure, red blood cells are no longer the limiting factor of oxygen transfer in the body.

Dissolved O₂ in the body fluids allow for:

- Increased cellular absorption of O₂
 - **More O₂ is available to be taken up and utilized by the cells, tissues, glands and organs including the brain, helping the body support its own healing process.**
- Increased O₂ to areas of diminished or blocked circulation
 - **Increased circulation reduces swelling and inflammation, and allows for new blood vessel growth**
- Research also suggests that HBOT greatly enhances the body's ability of white blood cells to kill bacteria and other pathogens.



To learn more about Hyperbaric Oxygen Therapy or to book a free consultation, call us today.

208-497-0500

Your First Visit

WHAT CAN I EXPECT TO HAPPEN DURING MY HYPERBARIC SESSION?

- Inside the chamber, both visual and verbal communication is possible with the chamber operator outside.
- Most people report a comfortable, relaxing experience. You may emerge from the chamber feeling refreshed.
- Following their first few sessions, some people experience slight fatigue as the body works to sweep itself of toxic debris that has built up over time. This is safe and may be necessary in the beginning of the healing process.

WHAT CAN I DO DURING MY HYPERBARIC SESSION?

- Listen to music
- Talk on your cell phone
- Play handheld games
- Watch movies on portable DVD player
- Work on laptop computer
- Read books or magazines
- Take a nap

WHAT DO I WEAR?

It is advisable that you wear comfortable, loose clothing

- Pantyhose and other tight garments may contribute to feelings of claustrophobia.
- Dress in layers as the chamber may be warm or cool.

Again, we suggest bringing something to read or being prepared with the suggestions above as the sessions last about 60 minutes.

CAN I EAT OR DRINK BEFORE MY APPOINTMENT?

Do not drink large amounts of fluids before entering the chamber.

- Once your dive has started, we would have to cut the session short if you were to have to use the restroom.

If you have Diabetes or problems with your blood sugar, eat a snack prior to your session.

NO PERFUME OR COLOGNE

Do not wear perfume or cologne when you are coming for your session. We have individuals who are sensitive to chemicals that may enter the chamber after you.



KEEP IN MIND FOR YOUR FIRST SESSION IN THE CHAMBER

Below are a few things to keep in mind when preparing for your first session in a hyperbaric chamber:

You may experience pressure in your ears, just like when flying on an airplane. To relieve any discomfort this may cause, we suggest equalizing your ears **AS EARLY AND AS OFTEN** as possible using one or more of the following methods:

- Swallow – either air or while taking sips of water
- Yawn – stretch your mouth as wide as possible, even stretching your tongue out. This will cause the sinus passages surrounding your ears to drain and relieve the pressure.
- Close your mouth and firmly clamp your nose shut with your fingers and thumb. Blow, as if you were blowing your nose, but keep nose and mouth closed. You will feel the air come out through your ears when you have done this procedure correctly, and this should relieve the pressure.
- Sit upright and turn your head completely to the right, then completely to the left. Repeat earlier steps until the ears are cleared.

For babies having difficulty equalizing their ears:

- A sippy cup, pacifier, or nursing can help
- Massaging the area just below the ears and right behind the jaw may help as well

Some people following their first few sessions experience slight fatigue as the body sweeps itself clear of toxic debris that has built up in the body. This is safe and necessary.

The Healing Sanctuary

208-497-0500

www.HealingSanctuary.clinic



HBOT FAQs

WHAT TYPE OF HYPERBARIC CHAMBER IS AT THE CLINIC?

HBOT is categorized into mild Hyperbaric Oxygen Therapy (mHBOT or mHBT) at 1.3 ATA (4.2psi), and higher-pressure Hyperbaric Therapy ranging from 1.3 - 1.7 ATA (2 - 11 pounds per square inch).

At our clinic, we utilize Hyperbaric Oxygen chambers that deliver both mild and higher-pressure HBOT. This is equivalent to 11 to 23 feet below sea level.

HOW LONG IS A SESSION?

Each session is an hour.

HOW LARGE IS THE CHAMBER?

Our chamber is large enough to accommodate 2-3 adults. We offer discounts for additional patients in the same hyperbaric session.

ARE HYPERBARIC CHAMBERS SAFE?

Hyperbaric chambers are safe. Because of this, the risk of oxygen toxicity in our mild chambers are negligible. Mild hyperbaric therapy chambers can safely be used in conjunction with nearly all other treatments.

ARE THERE ANY SIDE EFFECTS?

Hyperbaric Oxygen Therapy is a non-invasive, non-pharmaceutical therapy. Aside from the very low risk of oxygen toxicity, there are minimal side effects reported.

WHY IS A HYPERBARIC SESSION CALLED A DIVE?

Just like scuba diving, with this therapy your body is experiencing increased pressures below sea level. Unlike scuba diving, you are not diving under water for this pressure change. Instead, we use a compressor to increase the pressure of the ambient air that fills the sealed Hyperbaric Chamber, allowing the mechanisms of increased O₂ and pressure to help heal the body.

HOW MANY SESSIONS DO I NEED?

Your provider will make a recommendation for you based on your needs after an initial evaluation.

HOW DOES A TREATMENT FEEL?

The patient can lay or sit comfortably inside our chamber and either read, listen to music, sleep, or simply relax during a session. You will feel two segments of pressure changes during your therapy:

- The Descent: during the beginning of therapy when pressure is raised (increasing pressure below sea level).
- The Ascent: when the pressure is decreased, signaling your session is ending and you are coming back to sea level.
- It is extremely important to breath normally during these pressure changes.

Pressure changes are experienced by most as the ear "pops" in an airplane when the cabin is pressurizing. Most people using the hyperbaric chamber report a pleasant, comfortable experience.

ARE THERE ANY REASONS A PERSON SHOULD NOT GO INTO THE CHAMBER?

You are **NOT PERMITTED** to go into the chamber if:

- You have a Pneumothorax (collapsed Lung) or a suspected Pneumothorax
- You are unable to EQUALIZE your ears
- You are in the First Trimester of your pregnancy.
- You have existing compressive brain lesions (subdural hematoma, intercranial hematoma).
- Blood Pressure is too high.

You **SHOULD NOT** go into the chamber if:

- You have ear canal problems, have an ear infection, or are experiencing flu or cold symptoms as this may decrease your ability to equalize your ears.
- You are inebriated (drunk) or experiencing the effects of recreational drugs.

Of note: Therapy may enhance the effectiveness or decrease the effectiveness (increase the metabolism) of any medication you are taking. PLEASE let us know and we will accommodate to your needs.

CONDITIONS WE DO NOT CURRENTLY TREAT WITH THE CHAMBER

- Arterial Gas Embolism - Bubbles of air in your blood vessels
- Brain abscess
- Burns
- Carbon monoxide poisoning
- Decompression sickness
- Gangrene
- Osteomyelitis



Schedule a Free Hyperbarics Consultation

208-497-0500

HealingSanctuary.clinic

HBOT Study

A NOTE FROM DR. BAKER



I'm excited to share the following article out of Science Daily News in regards to a study in 2020 using HBOT. I want to point out that this study used 100% oxygen and pressures up to 2 ATA (>11 psi) Our center has HBOT chambers with pressures up to 1.7 ATA and oxygen concentrators that allow 90%, decreasing the risk of oxygen toxicity that is higher with 100% O₂.

Despite the differences between our chamber and those mentioned in this study, there are many research studies that show mild and higher pressure HBOT (which THS has) may give brain and anti-aging benefits. We cannot say how this changes the degree or rapidness of decreased aging benefit experienced.

In the study below, each participant had to take breaks of O₂ delivery during the HBOT session to avoid oxygen toxicity. The study showed that after 60 dives the body's cells became younger by 38% and the older cells reduced by 37%. Amazing information.

Enjoy! Dr. Jeff Baker, MD, AIHM, IFM

Hyperbaric Oxygen Therapy Increases Telomere Length and Decreases Immunosenscense in Isolated Blood Cells: A Prospective Trial

PUBLISHED IN AGING 01/18/2020

SOURCE: Materials provided by American Friends of Tel Aviv University. Note: Content may be edited for style and length.

A new study from Tel Aviv University (TAU) and the Shamir Medical Center in Israel indicates that Hyperbaric Oxygen Treatments (HBOT) in health aging adults can stop the aging of blood cells and reverse the aging process. In the biological sense, the adults' blood cells actually grow younger as the treatments progress.

The researchers found that treatments with high-pressure oxygen in a pressure chamber can reverse two major processes associated with aging and its illnesses: the shortening of telomeres (protective regions located at both ends of every chromosome) and the accumulation of old and malfunctioning cells in the body. Focusing on the cells containing DNA from the participants' blood, the study discovered a lengthening of up to 38% of the telomeres, as well as a decrease of up to 37% in the presence of senescent cells.

"For many years our team has been engaged in hyperbaric research and therapy" Professor Efrati explains. "Our achievements over the years included the improvement of brain functions damaged by age, stroke, or brain injury.

"In the current study we wished to examine the impact of HBOT on healthy and independent aging adults, and to discover whether such treatments can slow down, stop or even reverse the normal aging process at the cellular level."

The researchers exposed 35 healthy individuals aged 64 or over to a series of 60 hyperbaric sessions over a period of 90 days. Each participant provided blood samples before, during, and at the end of the treatments as well as some time after the series of treatments concluded. The researchers then analyzed cells in the blood and compared the results.

The findings indicated that the treatments actually reversed the aging process in two major aspects: The telomeres at the ends of the chromosomes grew longer instead of shorter, at a rate of 20%-38%; and the percentage of senescent cells in the overall cell population was reduce significantly -- by 11%-37%.

"Today telomere shortening is considered the 'Holy Grail' of the biology of aging." Professor Efrati says. "Researchers around the world are trying to develop pharmacological and environmental interventions that enable telomere elongation. Our HBOT protocol was able to achieve this, proving that the aging process can in fact be reversed at the basic cellular molecular level."

"Until now, interventions such as lifestyle modifications and intense exercise were shown to have some inhibiting effect on telomere shortening," Dr. Hadanny adds. With this pioneering study, we have opened a door for further research on the cellular impact of HBOT and its potential for reversing the aging process."

Journal Reference:

1. Yafit Hachmo, Amir Hadanny, Ramzia Abu Hamed, Malka Daniel-Kotovskiy, Merav Catalongna, Gregory Fishlev, Erez Lang, Nir Polak, Keren Doenyas, Mony Friedman, Yonatan Zemel, Yair Bechor, Shai Efrati. Hyperbaric oxygen therapy increases telomere length and decreases immunosenscense in isolated blood cells: a prospective trial. *Aging* 2020; DOI: 10.18632/aging.202188