

## Frequently Asked Questions (FAQs)

### What is hyperbaric oxygen therapy?

Commonly referred to as HBOT, hyperbaric oxygen therapy enhances the body's natural healing process by delivering oxygen under pressure, which increases the oxygen content in the blood, plasma, cerebral spinal fluid, and other body tissues. There are two basic types of HBOT—hard HBOT and mild HBOT. With hard HBOT, treatments are delivered in a hard-sided chamber typically at pressures greater than 1.5 ATA and using 100% oxygen. Mild HBOT refers to hyperbaric oxygen therapy at lower pressures, typically 1.5 ATA or below, and the use of an oxygen concentrator delivering 90-95% oxygen inside a portable soft-sided chamber.

While hard HBOT with 100% oxygen results in greater oxygen saturation in the tissues, many conditions respond better to mild HBOT. In clinical trials to date, there has been virtually no difference in clinical outcome between mild HBOT and hard HBOT. In addition, 100% oxygen is extremely flammable; therefore, hard HBOT involves managing the risk of explosion. Another concern with hard HBOT is oxygen toxicity. In contrast, mild HBOT has no known safety risks with fire or toxicity, and it is substantially less expensive.

Our facility provides concentrated oxygen (90-95%) at 1.3 ATA—a highly effective combination clinically, and without the risk of oxygen toxicity or explosion, as 100% oxygen is avoided.

### How should I expect mild HBOT to feel?

You will be seated or lying down inside the chamber, relaxing comfortably in your own clothing, as you breath concentrated oxygen (90-95% O<sub>2</sub>) through a facemask. As the chamber is gradually pressurized to 1.3 ATA you maintain contact with our trained staff person, remaining in control at all times. Some people experience temporary ear discomfort while pressurizing or depressurizing the chamber, but it typically resolves after the first few sessions. Sometimes ear discomfort is due to congestion, which makes it difficult for the ear to equalize; however, since mild HBOT can be beneficial for congestion, treatment may still be advantageous and pressurizing more slowly may be all that is required. If you are experiencing any parasitic or microbial infections such as Lyme disease or Candida, you may experience a temporary exacerbation of symptoms early in treatment as those organisms die off and your system detoxifies. Exercise, saunas, drinking extra water or detoxifying teas, and herbal supplements may be helpful in facilitating the process of detoxifying.

While inside the chamber you can rest, read, and use your Smartphone or tablet—free WiFi is available—or take a nap. When your session ends and the chamber is gradually depressurized, you will emerge feeling more oxygenated. Some people report feeling more relaxed after a session. Others describe feeling a sense of mental clarity, as HBOT is good for brain fog and is particularly helpful in addressing brain fog related to Lyme, fibromyalgia, chronic fatigue, radiation treatment, and chemotherapy.

### How should I prepare for treatment?

In general, people benefit from good nutrition and a healthy lifestyle. Eating prior to your appointment is helpful in maintaining a stable blood sugar during your treatment. Please note that no food or drinks are allowed in the chamber; however, if you have diabetes, we ask you to bring a snack in case your blood sugar drops in the chamber.

If you smoke, we recommend no nicotine for several hours before and after your appointment to gain the most benefits from your treatment. If you use a nicotine patch, we recommend that you remove it for several hours before and after your treatment. The longer you avoid nicotine, the more

tissue oxygenation will be able to benefit you.

We ask that you remove your shoes, wear comfortable clothing, and avoid wearing any scents/perfume/cologne as other people may be sensitive to them. No sharp objects or incendiary devices (matches, lighters) are allowed in the chamber.

It is very important to keep us informed of any changes to medications or your medical status. Let our staff know if you have a cold or sinus congestion, as this condition may make it more difficult to equalize your ears and require slower pressurization of the chamber.

Finally, we recommend emptying your bladder immediately prior to your session to avoid discomfort while under increased pressure.

### **How frequently should I receive treatments?**

A physician's (DC, ND, DO, or MD) referral (click here <http://communityhyperbaric.com/?p=450>) is required to receive mild HBOT treatments or to purchase a portable hyperbaric chamber. Your treatment plan will vary according to the type of health issues you are managing. Treatment plans for optimizing surgical outcomes, joint replacement, or enhancing athletic performance may consist of 10-20 sessions; 5-10 prior to the surgery, and 5-10 post-surgery. If you are dealing with underlying issues such as diabetes or heart disease, or you are a smoker, 20-30 sessions may be more appropriate. Interstitial cystitis generally requires 30 sessions. Patients dealing with surgery or wound healing following cancer treatment will likely require 40 sessions. For patients addressing chronic and neurological issues, such as rheumatoid arthritis, Lyme disease, autism, traumatic brain injury, or stroke, repeated series of 40 sessions may be required, depending on the extent and severity of the condition and other underlying health issues.

Many physicians recommend an initial group of 40 sessions, 60-90 minutes in duration, 5-6 days per week. Our staff is available to work with your physician to determine what frequency and duration would be appropriate for you, based on your particular condition/disease and current health status. Studies show that frequency of treatment is important in achieving optimal outcomes.

### **If I am dealing with a chronic condition that is responding to hyperbaric oxygen therapy, do I need to take a break after 40 sessions?**

No, you do not and, in fact, it may be counterproductive. Any time you take a break, there may be some degree of regression in any tissue that is still suffering from hypoxia (lack of oxygen). The cells that are dividing into the hypoxic zone lose their oxygen supply and are not yet able to sustain that growth. Until the tissue has undergone sufficient treatment to allow neo-vascularization to occur, these cells have no permanent supply of oxygen to support cellular division and tissue repair, stem cell proliferation, mitochondrial switching, etc. that occurs under hyperbaric conditions. Consistent, frequent treatment supports these processes.

### **Is mild HBOT safe? Are there any risks?**

Generally, mild hyperbaric oxygen therapy is very safe. Otic barotrauma (ear pain) is a risk due to difficulty equalizing ear pressure. It is typically quite temporary and easily controlled. Yawning or swallowing can remedy it—similar to what one would do when taking off and landing in an airplane.

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### **Are there any reasons a person should NOT go into a mild hyperbaric chamber?**

The only absolute contraindications to mild HBOT are pneumothorax and air-trapping emphysema. Other issues such as seizures, myopia (nearsightedness), cataracts, and oxygen toxicity do not relate to mild HBOT therapy in a soft chamber and are unheard of at pressures below 1.5 ATA.

If you are taking the following medications you should speak with your provider about discontinuing them prior to receiving mild HBOT.

- Cis-Platinum—a chemotherapy agent
- Disulfiram (Antabuse®)—an oral tablet used to treat chronic alcoholism
- Doxorubicin (Adriamycin®)—a chemotherapy agent
- Mafenide Acetate (Sulfamylon®)—a topical cream used to prevent and treat bacterial or fungal infections

### **What are the benefits of HBOT?**

Benefits provided by mild hyperbaric oxygen therapy are the result of extra oxygen being carried to the tissues and organs of your body, providing you with one or more of the following effects:

- Improved oxygen delivery to injured tissue
- Increased healing rates of overused and traumatized tissue
- Increased blood vessel formation
- Powerful anti-inflammatory effect
- Advanced wound healing
- Improved infection control, as higher levels of oxygen have a natural antibiotic effect
- Preservation of damaged tissues
- Elimination and reduction of effects from toxic substances
- Reduction or elimination of tissue obstruction by gas bubbles
- Stem cell proliferation and mitochondrial switching
- Immune system normalization

Mild HBOT is widely promoted and utilized as a preventative, recuperative, and restorative therapy for a wide variety of diseases and conditions. It is also used by athletes to enhance performance and speed healing time; it is good for you!

Please see our Research and Resource page for more detailed information on how mild HBOT may help with your specific condition or disease.

### **What conditions are treated with HBOT?**

Hyperbaric oxygen therapy is used internationally for more than 80 different conditions. Research supports its use for athletic injuries and performance, arthritis, autism, attention deficit disorder, auto-immune disorders, Bell's Palsy, brain and head injuries, cardiovascular disease, cerebral palsy, Crohn's disease, dermatological conditions, diabetes, dementia, interstitial cystitis, irritable bowel syndrome and colitis, Lyme disease, learning disabilities, macular degeneration, multiple sclerosis, neuropathies, pervasive development disorders, PTSD, reflex sympathetic dystrophy, reconstructive surgery, spinal cord injury, stroke, and more. Research is showing that it may be effective as an anti-aging and cancer prevention strategy. ([link to Harch's testimony to NIH on Utube](#))

HBOT is FDA approved to treat air or gas embolism, carbon monoxide & cyanide poisoning, crush injury, acute traumatic ischemia, decompression sickness, delayed radiation injury, diabetic foot ulcers, enhanced healing of problem wounds, exceptional blood loss, gas gangrene, intracranial abscess, necrotizing soft tissue infections, osteomyelitis (refractory), skin grafts and flaps

(compromised), and thermal burns.

Portable hyperbaric chambers are cleared by the FDA to treat acute mountain sickness only. All other conditions treated by portable hyperbaric chambers are considered off-label uses. Many of these uses are quite commonplace in countries such as Russia, China, Japan, Italy, and the U.K.

### **How can I learn more about HBOT?**

A very comprehensive book about HBOT is *The Oxygen Revolution* by Paul Harch, M.D. This book is geared toward individuals who would like to learn more about how HBOT works and what conditions it treats. The book explores the science behind HBOT, as well as case histories of patients who have benefited from HBOT.

### **Do you take insurance?**

Unfortunately, most insurance policies do not cover mild HBOT. Our fee structure for treatment and chamber sales reflects our mission, which is to make hyperbaric oxygen therapy available and accessible to those who can benefit from it.

### **Many of the common uses for HBOT are termed "off-label" by the FDA. What does "off-label" mean?**

If a drug/device is prescribed for a particular diagnosis that does not appear on the FDA's approved (i.e. labeled) list then its use is considered "off-label". Off-label uses are neither risky nor investigational; they constitute the traditional practice of medicine that has existed long before the FDA. Often the off-label use of a drug or medical device may, in fact, be less risky than the approved indications.

Off-label use is widespread in the medical community and is often considered essential to giving patients optimal medical care. The Food and Drug Law Journal states, "Off-label uses of medical devices and drugs perform an important therapeutic role in many, if not most, areas of medical practice". Prescriptions for off-label uses of drug products "may account for more than 25% of the approximately 1.6 billion prescriptions written each year, with some recent estimates running as high as 60%." For example, Gabapentin is FDA approved for treatment of seizures and post-herpetic neuralgia in adults, but is commonly used off-label to treat bipolar disorder, essential tremors, hot flashes, migraine, restless leg syndrome, and neuropathic pain. Beta-blockers are routinely prescribed for a variety of off-label uses, tricyclic antidepressants are prescribed for chronic pain, and antipsychotics for attention deficit hyperactivity disorder (ADHD). Pediatric uses for most medications are considered off-label, as drugs are not routinely tested on children. Many inhaled bronchodilators, antimicrobials, anticonvulsants, and proton pump inhibitors are frequently used in children without formal FDA approval. Thus, "in some cases, if you didn't use the drug in the off-label way, you'd be guilty of malpractice" (Beck, J. & Azari, E., 1998). FDA, Off-Label Use, and Informed Consent: Debunking Myths and Misconceptions. Food and Drug Law Journal, 53: p. 80). Accordingly HBOT for brain injuries is simply the off-label use of a FDA approved drug/device.

Unfortunately, certain third party payers have used the FDA label indications as a means for determining reimbursement, which, in practice, results in the untoward restriction of a physician's ability to prescribe an approved drug/device off-label. To be clear, the FDA label was never intended to influence the practice of medicine, but the inaccurate understanding of the FDA's intention has been opportunistically used by third party payers to restrict reimbursement.