



Guide to Hyperbaric Oxygen Therapy

At BaroMedical we provide health care service in a comfortable and safe environment. Our hyperbaric team consists of professionals and experts who work closely with our clients throughout the rehabilitation process, providing individuals with consultations and feedback on the progress of their treatment. As our clients recover, their progress is monitored with extremely advanced scientific techniques such as a transcutaneous tissue oxygen monitor, Laser Doppler blood flow monitor and digital photography.

These information sheets have been designed to provide you with necessary information about hyperbaric treatment and to answer the most common questions concerning our facility and the treatment you are about to receive.

What is Hyperbaric Oxygen Therapy ?

Hyperbaric oxygen therapy is a mode of therapy in which the client breathes 100% oxygen at a pressure greater than normal atmospheric pressure within a hyperbaric chamber. When breathing pure oxygen at elevated pressures (2-3 times the atmospheric pressure experienced at sea level), oxygen dissolves in the blood plasma in addition to the hemoglobin, thereby increasing the quantity of oxygen transferred to any tissue in the body 10-15 fold.

What are the benefits of Hyperbaric Oxygen Therapy ?

Depending on the reason for your referral to our facility, hyperbaric oxygen will be used to provide you with one or more of the following:

- Increased oxygen delivery to the injured tissues
- Greater blood vessel formation
- Advanced wound healing
- Increased soft tissue and bone recovery
- Improved infection control
- Preservation of damaged tissues
- Elimination of toxic substances
- Reduced effects from toxic substances
- Reduction of swelling, which often complicates recovery

At BaroMedical we offer a complete wound care program and specialize in treatment of clients whose wounds are not healing as rapidly as they should. Hyperbaric oxygen therapy is used to speed up recovery, thereby reducing health care cost and increasing the general quality of life. Some of the potential benefits include avoiding confinement to wheelchair, bed rest or amputation.

What are the risks associated with Hyperbaric Oxygen Therapy ?

Like all health care treatments and procedures, some risks are associated with hyperbaric oxygen therapy. These risks are quite rare and they will be discussed with you before you sign your consent form for therapy.

Possible but rare complications associated with hyperbaric exposure are baro-trauma (pulmonary or middle ear) and sinus pain or sinus squeeze. Using proper equalizing techniques, or taking decongestant medications, before each session, can prevent these complications. In any case, if you feel that you may be catching a cold or experiencing any other change in your health, you should tell us prior to therapy. Oxygen toxicity of the central nervous system is a very rare complication and is manifested as a seizure. Taking a regular daily dose of Magnesium and Vitamin E, and **avoiding additional vitamin C (to normal daily intake)**, as well as avoiding Aspirin and extensive physical exercise and hyperthermia before each session of hyperbaric treatment can prevent oxygen toxicity. Some clients may experience some degree of confinement anxiety. Orientation and informational procedures before the commencement of the treatments are intended to minimize the anxiety. Also, listening to music, watching a video or bringing a family member or a friend along for the first few sessions may solve the potential problem.

Are there any side effects ?

Generally, clients experience no after effects from hyperbaric oxygen therapy. However, some clients report “crackling” in their ears after a session in the hyperbaric chamber. You can relieve this in the same way you cleared your ears during changes in pressure while in the chamber. Some clients report feeling lightheaded for a few minutes following a session, but this is brief and clients are soon able to continue their normal daily activities. Very rarely clients undergoing numerous hyperbaric oxygen sessions develop temporary changes in eyesight. Studies have shown that in these rare cases any altered vision is of short duration and vision will return to its pre-treatment status within several weeks after the cessation of treatment.

How many treatment sessions will you need ?

The number of sessions varies with each client. Most wound healing problems require 30 – 40 sessions. Some injuries require up to 10 sessions. Treatment sessions may be provided twice a day five to six days a week. For out of town clients we have arranged good rates for accommodation in a nearby hotel.

The hyperbaric team will discuss your planned initial course of therapy with you after initial evaluation. The exact number of sessions will be determined by your response to hyperbaric oxygen therapy and you will be informed of your progress by the team.

How does Hyperbaric Oxygen Therapy feel ?

Hyperbaric oxygen treatment is painless. You lie comfortably in a bed inside the pressurized chamber. You can listen to music, watch TV or nap if you wish and feel no different than if you were lying in your own bed.

During some treatment sessions, you may experience a sensation of fullness in your ears, similar to what you feel while flying in an airplane or driving down a mountain. As part of your orientation you will be taught how to clear your ears and avoid discomfort.



How do you Prepare for Hyperbaric Oxygen Therapy ?

MEDICATION: You should report to your hyperbaric team all medications you are taking, including non-prescription drugs. Some medications could affect the body's response to oxygen. Some commonly used medications contribute to the development of side effects from oxygen therapy. Special precautions are required for clients who are taking digitalis, insulin, pain medication, tranquilizers, aspirin, large doses of Vitamin C and steroids.

You will be advised to **take at least 400 units of Vitamin E a day** during the entire course of the treatment starting two days before the treatment. Vitamin E is available in most drug stores and does not require a prescription. It helps to protect your body from absorbing more oxygen than it can safely use.

SMOKING and tobacco products constrict the blood vessels and lower the blood supply and oxygen that can be delivered to tissues. You should not smoke during the course of hyperbaric treatments.

CAFFEINE has similar effect on blood vessels as smoking. You should refrain from drinking beverages containing caffeine at least 4 hours before a session of hyperbaric oxygen treatment. (As well as avoiding coffee and tea, you should also avoid "cola" drinks as these contain caffeine.)

HEALTH PROBLEMS: If you experience flu, fever, headache, nausea, vomiting, body aches or any change in your health during the course of hyperbaric treatment you should notify your hyperbaric team as soon as possible. You may have to discontinue treatment until the symptoms resolve.

CLOTHING: Personal items are not permitted within the hyperbaric chamber. You will be provided with cotton garments to wear during therapy. You can keep your undergarment as long as it is 100 % cotton. Metal and Velcro straps are not allowed. Cotton is necessary in order to reduce the potential for static electricity - **WHICH COULD CAUSE EXPLOSION AND FIRE**. For the same reason, you must not have the following items on your person during a treatment session:

- cigarettes, matches and lighters
- jewelry, metal objects
- hairspray, hair gel, make up, nail polish, acrylic nails
- perfume, deodorant, after shave
- oils/grease (including hair or skin products containing oil or grease)

In addition, you will have to remove any dentures and partial plates as well as glasses or contact lenses and hearing aid.

Please do not bring valuable items to the hyperbaric facility but feel free to bring your favorite CD or video to watch during the course of the hyperbaric oxygen treatments. **Arrive at least 15 minutes prior to your scheduled time. Late arrival may cause shortening of your therapy.**

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