

Welcome to The Hyperbaric Medicine Center of Nebraska Medical Center. This brochure has been designed to provide you with necessary information about your scheduled hyperbaric treatments, and to answer the most common questions concerning our facility and the treatments you are about to receive. After reading this brochure, please call the Hyperbaric Medicine Service at (800) 922-0000 or your doctor if you have any questions.

## What Is Hyperbaric Oxygen Therapy?

Hyperbaric oxygen therapy is a medical treatment that is used to treat a limited but diverse series of illnesses. It may be the primary treatment for some disorders, but it is often used as part of a combined program involving antibiotics and surgery. In order to provide patients with hyperbaric oxygen therapy, a pressurized chamber is necessary. The patient is placed within the chamber, which is then compressed to the level ordered by the consulting hyperbaric physician, using pure oxygen.

Hyperbaric oxygen is a simple concept. The air we breathe contains 21 percent oxygen. Providing 100 percent oxygen by face mask without the use of a chamber has certain, limited, benefits. By providing pure oxygen in a pressurized chamber we are able to deliver 2-3 times that which can be provided by breathing 100 percent oxygen with no increase in pressure. This "hyperbaric" (or high pressure) dose of oxygen offers distinct therapeutic benefits.

## How Does Hyperbaric Oxygen Therapy Work?

Oxygen, when delivered to a patient in a hyperbaric chamber, greatly increases the amount of oxygen that can be delivered to body tissues by the blood. All of the benefits provided by hyperbaric oxygen therapy are the result of this extra oxygen being carried within the bloodstream. There is really no benefit from the oxygen within the chamber in direct contact with wounds. This is the reason that your dressings are usually left in place during the treatment.

Depending upon the reason for your referral to the Hyperbaric Medicine Service, hyperbaric oxygen will be used to provide you with one or more of the following effects:

- Increased oxygen delivery to the injured tissue
- Greater blood vessel formation
- Advanced wound healing
- Improved infection control
- Preservation of damaged tissues
- Elimination of toxic substances
- Reduced effects from toxic substances
- Reduction or elimination of tissue obstruction by gas bubbles

The above effects may occur with only one or two treatments. However, it may be necessary to undergo as many as 30-40 treatments for maximum benefit. Your planned treatment course will be discussed with you in detail prior to starting therapy.

## What Does Hyperbaric Oxygen Feel Like?

Hyperbaric oxygen treatments are normally painless. You simply lie comfortably and restfully in the chamber. You can listen to music, watch TV or nap if you wish and feel no differently than if you were lying in your own bed.

You may experience a sensation of fullness in your ears during certain stages of the treatment. This is similar to that which is felt while flying in an airplane or driving down a mountain as the eardrum responds to changes in pressure. As part of your introduction to the treatment, you will be taught several easy methods to avoid ear discomfort.

## Are There Any Side-Effects?

Generally, patients experience no after-effects from hyperbaric oxygen therapy. However, some patients report a "crackling" in their ears between treatments. You can relieve this in the same way you cleared your ears during changes in pressure while in the chamber. If the crackling should continue, please report this to the staff. Some patients report feeling lightheaded for a few minutes following a treatment, but this is brief and the patients are able to continue with their normal daily activities.

RARELY patients having hyperbaric oxygen therapy develop TEMPORARY changes in eyesight. Studies have shown in these rare cases that any altered vision is of short duration and will return to its pre-treatment status within six to eight weeks after treatment ends.

Like all medical 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.

## How Many Treatments Will I Need?

The number of treatments are individualized to each patient. Some emergency treatments will only require one or two treatments. Most wound healing problems may require 30-40 treatments.

These treatments may be provided twice a day if your are hospitalized. For outpatients we will normally provide once a day treatments for five days of each week.

Your planned initial courses of therapy will be discussed with you by the hyperbaric medicine team, before you start. The exact number of treatments will be determined by your response to hyperbaric oxygen therapy, and you will be advised by the hyperbaric team as this information becomes available.

## Do I Need To Make Special Preparations for Hyperbaric Oxygen Therapy?

There are a number of preparations that are necessary before starting each treatment, and these will be discussed with you in detail by the hyperbaric medicine team. The following information summarizes these preparations:

**SMOKING AND CAFFEINE:** Since tobacco and caffeine products constrict blood vessels and limit the amount of blood and oxygen that can be delivered to tissues, you should not use tobacco and caffeine products during your course of treatment.

**MEDICATIONS:** It is very important that you provide the hyperbaric medicine team with a complete list of medications, including non-prescription drugs, that you are taking. Some medications change the body's response to oxygen, and these will be discussed with you individually.

**ILLNESS:** If you experience the symptoms of a cold or the flu, such as fever, cough, sore throat, nausea, vomiting, headache, diarrhea, or generalized body-aches, please notify a hyperbaric staff member as soon as possible. These symptoms may require a temporary delay in your treatment schedule. When your symptoms resolve, treatments may be resumed.

**CLOTHING:** Personal items are not permitted within the hyperbaric chamber. You will be provided with cotton garments to wear during therapy. Cotton is necessary in order to reduce the potential for static electricity. For this same reason, the following items are not allowed in the chamber:

- All air/chemically activated heat wraps such as ThermaCare®
- Cigarettes – matches/lighters
- Jewelry – and all metal objects
- Hairspray/make-up
- Perfume/deodorant/shaving lotion
- Oils/grease (hair/skin products)
- Any battery-powered device (e.g. cell phones, hearing aids)
- Hair extensions/wigs

In addition, dentures and partial plates will be removed, and it may be necessary to remove contact lenses and glasses.

Lockers are provided for your clothing and other items. Please do not bring valuable items to the hyperbaric medicine facility.



**Outpatient Information:** Free valet parking is available at Clarkson Tower located at 42nd and Dewey Ave. Upon arrival for the first treatment, it is necessary to check in at Access Services on the ground floor of Clarkson Tower. For all subsequent visits, please arrive 15 minutes prior to your scheduled appointment and check in at the Hyperbaric Medicine Center reception desk, located on the 9th floor of Clarkson Tower.

A Patient's Guide To

# Hyperbaric Oxygen Therapy



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