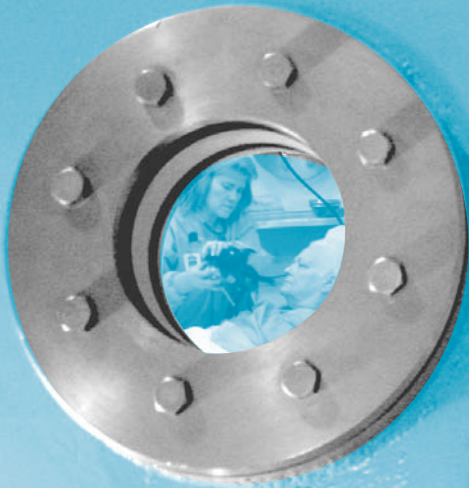


HENNEPIN COUNTY MEDICAL CENTER

HYPERBARIC OXYGEN THERAPY

PATIENT HANDBOOK



HYPERBARIC OXYGEN THERAPY

Your physician, in consultation with a hyperbaric physician, has determined that you should receive hyperbaric oxygen treatments at Hennepin County Medical Center. The HCMC Hyperbaric Medicine program was the first hyperbaric program in Minnesota and the only one in the state for more than 40 years. It is staffed by experienced certified physicians, trained nurses, and certified hyperbaric technicians. This brochure was written to answer some of your questions before you begin treatment.

What is hyperbaric oxygen therapy?

Hyperbaric oxygen therapy is a medical treatment in which high doses of oxygen are delivered to your body. This is done by breathing 100 percent oxygen through a mask while you are inside a pressurized air chamber. From the outside, this pressurized air chamber looks a lot like a submarine. HCMC's hyperbaric chamber is a multi-place chamber, which means that several patients can receive treatment at one time in the same room.

The purpose of hyperbaric oxygen therapy is to dissolve high concentrations of oxygen in your blood and tissues. Certain types of infections, tissue injuries, and poisonings can be treated effectively if the body is saturated regularly with oxygen this way. The extra oxygen can help wounds heal and help the body fight infection.

What conditions is hyperbaric therapy used to treat?

- Hyperbaric oxygen therapy has been used safely and successfully for decades for certain medical problems such as carbon monoxide poisoning, gas gangrene, and diver's decompression sickness (also known as the bends).
- Recent studies have shown that it is effective in treating a number of other medical problems, such as certain serious infections of soft tissue and bones, tissues injured by radiation therapy, and trauma that includes crushing injuries, and selected problem wounds such as diabetic foot ulcers, nonhealing amputation sites, tissue grafts or flaps that are not doing well.



How often are hyperbaric treatments given?

Patients are generally treated once a day, but some may require therapy twice a day. The number of treatments prescribed for you and the duration and exact pressure used will depend on your condition. Normal treatment days are Monday through Friday, excluding major holidays. Emergency cases are seen as needed outside of regular business hours.



What will the treatment be like?

Before your therapy begins, your vital signs (e.g., blood pressure, temperature) will be taken to be sure they are within a normal range. You will then change into hospital clothing and enter the chamber, proceeding to your assigned seat. During your therapy, you will rest comfortably lying or sitting in a large, well-lit hyperbaric chamber room. A licensed health care professional will be with you at all times. There usually will be other patients in the room. You will be wearing an oxygen mask or oxygen hood during most of the treatment time, which will take approximately 1-1/2 to 2 hours.

During the first 10-15 minutes of the treatment, the air pressure in the chamber will be increased gradually until it reaches the prescribed amount. You will notice that the air gets warmer during compression. When the treatment pressure is reached, the chamber will be kept at a comfortable temperature.

You will also hear air coming into the chamber, and you will feel a sensation of pressure in your ears, similar to that experienced during an airplane trip. This is normal, but you will have to clear your ears several times during this compression. Your hyperbaric nurse will teach you ways to relieve this sensation prior to your treatment (see information on the next page). Please notify the nurse immediately if you start feeling discomfort in your ears or sinuses so that the compression can be stopped and we can help you equalize the pressure in your ears before proceeding with the treatment.

During most of your treatment time, you may relax, read a book, or sleep. You will feel no unusual sensations, despite the fact that you are breathing 100 percent oxygen. Short periods of breathing room air will be part of the treatment. During these times you will be asked to remove your mask or hood, and you may talk with the nurses or other patients, or have a drink of water or juice.

During the last 10 or so minutes of your treatment, the pressure in the chamber will be decreased gradually until it is back to normal atmospheric pressure and the chamber temperature will get cooler. During this time, you may again feel a pressure or popping in your ears. However, don't try to clear your ears during this decompression time. Your ears will clear automatically. It is also important during this time not to hold your breath. The chamber nurse will help you remember this.

Ways to equalize the pressure in your ears

As the hyperbaric chamber is pressurized, your eardrum is pushed slightly inward. This is normal, but it can be painful if you do not equalize the pressure in your middle ear. Prior to your treatment, your hyperbaric nurse will teach you ways like those below to relieve this sensation of pressure.

- **The Valsalva Maneuver:**
 - Hold your nose closed and close your mouth.
 - Attempt to blow (short and gently) through your nose while holding it shut.
- **Other methods:**
 - Try yawning, swallowing, chewing gum or drinking sips of water.
 - Lift your tongue to the roof of your mouth and swallow.

You will have to repeat these methods several times during the pressurization phase of treatment. If you have difficulty with your ears, please tell your nurse immediately. Don't wait until the sensation of pressure starts to hurt.



How will I feel at the end of a treatment?

You will feel normal after a hyperbaric oxygen treatment. There will be no nausea or fatigue. If you drove to the chamber, you will be able to drive home from the chamber.

Your first physician consultation visit at HCMC

Your first physician consultation visit at HCMC will include a physical exam and a review of your medical history and records. You will not have a treatment on this first consultation visit; your treatments will be scheduled after this initial exam. Some blood tests and a recent chest x-ray will be required before your first hyperbaric treatment. These can be done at your own physician's office.

Your responsibilities during hyperbaric treatment

You have several responsibilities to ensure that your treatments are safe and as effective as possible.

- 1) You must notify the medical staff at the hyperbaric chamber if you have developed any illnesses since your last treatment. Medical personnel will then decide if it is advisable for you to go ahead with treatment as scheduled, or wait until your symptoms have improved.

Let us know if:

- You get a cold, the flu, or have a sore throat, cough, or nasal or chest congestion.
- You develop diarrhea.
- You develop nausea or vomiting.
- You develop an ear or sinus infection.

Please also let us know if:

- There is any possibility that you may be pregnant.
 - You change medications.
 - You have not eaten breakfast.
 - You are diabetic and didn't take your insulin.
 - Any time you have a concern.
- 2) You must notify medical staff at the hyperbaric chamber immediately if you do not feel well during or right after your hyperbaric session. You should feel normal after your treatment.

- 3) You can help us minimize fire hazards in the chamber by:
- Wearing the clothes into the chamber that are provided for you by the chamber staff.
 - **Not using** any makeup, hair oil or spray, perfume, or aftershave.
 - Not taking any flammable items such as lighters or matches into the chamber.
 - Not taking any items with moving parts into the chamber, such as calculators and watches.
 - Not taking electronic devices, including hearing aids, into the chamber.

Please ask if you have questions about what can be taken into the chamber.

- 4) Since more than one patient is often treated at the hyperbaric chamber at the same time, you are asked to **please be on time for your sessions** and to **call ahead if you cannot keep your appointment**.
- 5) Nicotine reduces the effectiveness of hyperbaric oxygen therapy, so you will be asked by your doctors to stop smoking or using other nicotine products during the course of your treatments.

- 6) Please do not bring jewelry or other valuables to the hyperbaric chamber while you are having your treatments.

Who should I call if I have questions or concerns?

If you have questions, need to cancel an appointment, or have problems, call the hyperbaric chamber at (612) 873-7420 and ask to speak to the hyperbaric nurse. If you need to talk to a hyperbaric physician, the nurse will arrange it for you.

Affordable lodging

Some downtown-area hotels offer various special hospital or HCMC rates. Please check with each hotel for specific room rate information, and ask if other services such as free continental breakfast or shuttle service are provided. Some hotels offer free parking, while others may charge from \$7 to \$15 per night. Please be sure to inquire about parking costs at the same time you inquire about room rates.

Visit www.hcmc.org for a detailed lodging guide. This guide is also available from HCMC's Patient Representatives Office at (612) 873-8585.

For more information . . .

For more information about nearby restaurants and other services close to HCMC, please call the HCMC Patient Representative's Office at (612) 873-8585 or check the hospital website at www.hcmc.org.

Hennepin County Medical Center
HCMC
Level 1 Trauma Center

HYPERBARIC MEDICINE

619 South 5th Street
Minneapolis, MN 55415
(612) 873-7420

www.hcmc.org

rev. 2/06

