



Health

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Complications of Hyperbaric Oxygen Treatment

You breathe pure oxygen inside a highly pressurized chamber during hyperbaric oxygen therapy (HBOT). Often, pressure is between 1.5 and 3 times greater than normal air pressure.

This therapy was used by undersea medicine specialists to treat deep-sea divers who got decompression sickness. This is also called "the bends." It's now used to treat many conditions from severe burns to some types of wounds, and carbon monoxide poisoning. But like all medical procedures, it has some risks.

Side effects and possible complications of HBOT

During HBOT, you lie or sit in an enclosed chamber. The pressure inside the chamber is slowly increased while you breathe oxygen. The therapy may last as little as 3 minutes or as long as 2 hours. Then the pressure is returned back to normal. Because the pressure is so high, some people may have discomfort while in the chamber. It's common to have ear pain. Or a popping feeling in your ears.

You may need to take short breaks during the therapy and breathe normal air. This can prevent tissues in the body from taking in too much oxygen.

The oxygen dose given during the treatment is specific for each person. Your healthcare provider will consider any health problems you have. Your overall health and your age will also be considered. This helps reduce the risk for side effects and complications.

Possible symptoms or side effects after HBOT can include fatigue and lightheadedness.

More severe problems can include:

Lung damage, including collapse of the lung

Fluid buildup or bursting (rupture) of the middle ear

Sinus damage

Changes in vision, causing nearsightedness, which usually goes away days to weeks after the last treatment

Oxygen poisoning, which can cause lung failure, fluid in the lungs, or seizures. Seizures from oxygen poisoning don't typically cause brain damage

Low blood sugar

Side effects are generally mild as long as:

The therapy doesn't last more than 2 hours

The pressure inside the chamber is less than 3 times that of the normal pressure in the atmosphere

HBOT cautions

Hyperbaric oxygen therapy is not safe for everyone. In general, you shouldn't get HBOT if you:

Have certain types of lung diseases because of an increased risk for a collapsed lung

Have a collapsed lung

Have a cold or a fever

Have had recent ear surgery or injury

Don't like small, enclosed spaces (claustrophobia)

Precautions to take

The best way to avoid side effects and complications of HBOT is to be treated by certified and trained medical staff. Not many healthcare providers in the U.S. are board-certified in the field. The healthcare provider directing your therapy should have special training from the Undersea and Hyperbaric Medical Society. Ask to see their certificate of completion for the course.

The technicians should also have special training to operate the chamber safely. Ask if they are certified hyperbaric technicians.

Uses of hyperbaric oxygen therapy

Another way to prevent complications is to use HBOT only as intended. HBOT is used to treat many different health conditions including:

Carbon monoxide poisoning

Cyanide poisoning

Injuries from crushing forces

Gas gangrene, a form of gangrene in which gas collects in tissues

Decompression sickness

Sudden or traumatic poor blood flow in the arteries

Certain types of wounds

Skin grafts and flaps

Infection in a bone called osteomyelitis

Delayed radiation injury

Osteonecrosis of the jaw

Flesh-eating disease called necrotizing bacterial soft tissue infections

Air or gas bubble trapped in a blood vessel (air or gas embolism)

Long-term (chronic) infection called actinomycosis

Diabetic wounds that are not healing correctly

Medicare, Medicaid, and many insurance companies generally cover these procedures. But they may not cover it in every case. Check with your insurance plan before you start treatment.

Request an Appointment

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