



Possible Complications of Hyperbaric Oxygen Therapy

Ear Barotraumas:

Ear barotrauma is the result of not being able to equalize the chamber pressure with the pressure of the middle ear. This may be caused by upper respiratory infections, nasal congestion, or deformity of the Eustachian tube. Children can be taught to clear their ears by drinking liquids, yawning, or simply opening their mouth. Decongestants or nasal sprays can also be used if necessary. If a patient shows any signs of ear pain or discomfort, the chamber pressure is immediately reduced. Additional pressure is not added to the chamber until we are sure the ear pain has subsided and the pressures have been equalized. Very rarely do we need to refer patients to ENT specialists for evaluation of PE tube placement into the ear drums. If ear barotraumas are not adequately treated, damage may result to the ear drum, middle or inner ear.

Ocular Changes:

Hyperbaric oxygen therapy does not cause cataract development, but may cause cataracts to mature faster if they are already present. HBOT may cause temporary near sightedness but this almost always resolves at the end of the therapy period. This may be seen in our adult patients and only at greater depths.

Confinement anxiety:

This is very rare in children due to the totally clear hyperbaric chamber and the presence of family members next to the chamber. Parents have direct communication with their children and can hear every sound made by the child.

Pulmonary Barotraumas:

It is theoretically possible for extreme pressures to cause collapse of the lung. This is very rare and usually occurs at very deep pressures. There is also the possibility of a spontaneous pneumothorax. (collapse of the lung) in patients with abnormal lungs. Again, this is very unlikely in children and is more apt to occur at deep pressures (greater than 45 ft). Careful screening of patients prior to hyperbaric therapy can usually avoid these problems.

Seizures:

Seizures related to oxygen toxicity are very rare and occur only about once in over 20,000 hyperbaric exposures. This usually occurs at deeper depths (over 33ft) and with longer exposure times (greater than 90 minutes).

Fire:

This is almost an impossible occurrence. Sechrist monoplace chambers meet or exceed every fire safety standard set for the USA or World exposure. Our facilities are continually monitored by the local Fire Marshall and have passed every inspection. Our Sechrist hyperbaric chambers are inspected and serviced every year by company trained technicians.