

What Patients Can Expect

Hyperbaric oxygen is intermittent, high-dose oxygen inhalation therapy. The body's healing process and its defenses against infection are enhanced by increasing the amount of oxygen that reaches tissues. Hyperbaric oxygen therapy helps the healing process, combats infection and is given in conjunction with other treatments such as antibiotics and surgery.

Penn Medicine

Why

So
Many



Treatments?

The effects of oxygen on blood vessel growth and tissue healing are gradual. Studies of blood vessel growth in cancer patients have shown that radiation-treated tissue may have as little as 30 percent of the blood vessels seen in unaffected tissue. By using hyperbaric oxygen on a daily basis, researchers have found that new, microscopic blood vessels start to grow after six to eight sessions.

The most growth occurs between sessions 18 to 23, when the number of blood vessels reaches about 80 percent of normal non-radiated tissue. For many patients, it is as if they never had radiation. For

diabetic patients, hyperbaric oxygen therapy often reduces the need for lower extremity amputation.

Individualized Care

I Accept

Treatment plans vary according to individual diagnosis. Each hyperbaric oxygen therapy session is typically two hours long. The number of treatments needed to achieve full healing depends on the condition of the patient and the site of the injury. Treatment plans are based on guidelines determined by research and endorsed by the Undersea and Hyperbaric Medical Society.

The success of each day of therapy depends on the previous day's treatment, with the first two weeks being the most critical in stimulating the body's healing mechanisms. Most treatment plans involve at least 20 sessions. Each patient's response to the treatment is unique and is evaluated individually. Penn's hyperbaric medicine staff provides attentive care and explains all possible side-effects.

Your Role in Your Treatment

As with most medical treatment, good nutrition, wound care and general health maintenance help achieve complete healing.

Uncontrolled diabetes and hypertension counteract the effect of hyperbaric oxygen therapy, slowing the development of new blood vessels. Smoking also diminishes the effectiveness of hyperbaric oxygen therapy by decreasing the amount of oxygen reaching body tissue.

Safety Inside the Hyperbaric Medicine Chamber

At Penn Medicine, your safety is a top priority. A special safety lock permits staff and patients to move in and out of the chamber without affecting the others in the chamber. If a patient is late or there are

issues with a patient's treatment, it does not impact the others in the chamber.

Because of the high oxygen environment, patients are not allowed to bring the following items inside the chambers:

- Electronics
- Cosmetics (hair spray, make-up, perfume)
- Petroleum-based products
- Synthetic materials (nylon, rayon, wool)
- Glass
- Alcohol
- Cigarettes
- Lighters or matches
- Watches
- Pens
- Newspapers
- Batteries

Receiving every scheduled hyperbaric oxygen therapy session is important, however, a patient's current health may not allow for optimal treatment. A patient with any of the following conditions should speak with a hyperbaric medicine staff person before receiving treatment.

- Head congestion
- Fever
- Nausea

- Vomiting
- Diarrhea