

Hyperbaric Oxygen Therapy (HBO)

Following Radiation Treatment

Hyperbaric oxygen (HBO) therapy is a non-invasive procedure frequently used to treat tissue damage or injury caused by radiation therapy.

After radiation therapy, normal tissue can lose its blood supply and become oxygen deprived. When this happens, necrosis can occur. Radiation therapy to any area of the body can cause tissue damage described as osteoradionecrosis (injury to the bone) or soft tissue radionecrosis (injury to muscle and skin tissue). The tissues and organs most commonly affected by radiation therapy are the head and neck, chest wall, bladder, and rectum.

Numerous published studies have shown hyperbaric oxygen therapy speeds healing in soft tissue and bone damaged by radiation treatments with many studies revealing excellent outcomes.

Benefits of Hyperbaric Oxygen Therapy

Hyperbaric oxygen (HBO) therapy utilizes oxygen under pressure to enhance the body's natural ability to heal. Patients breathe 100% oxygen inside a chamber that is pressurized at 2-3 times greater than atmospheric pressure. The treatment causes an increase in plasma and tissue oxygen, which stimulates the rebuilding of blood vessels while fighting infection.

Benefits of hyperbaric oxygen therapy include:

- Vascular improvement
- Expedited healing of osteoradionecrosis (ORN)
- Improved oral surgery outcomes (in patients treated both before and after surgery)
- Freedom from pain
- Restoration of mandibular function and wearing of dental appliances, if needed
- Maintenance of intact mucosa and skin over bone
- May help reduce the amount of required pain medication



A patient receiving hyperbaric oxygen therapy

According to the National Cancer Institute, approximately 50% of all cancer patients receive some type of radiation therapy during their course of treatment. Radiation-induced tissue damage is a concern for both patients and practitioners.

Radiation injury is one of the many conditions approved for treatment with hyperbaric oxygen therapy by the Undersea and Hyperbaric Medical Society (UHMS), as well as other commercial insurers.

Call the Center for Wound Care and Hyperbarics at 661.327.5150

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