Hyperbaric Oxygen Therapy

For Radiation Proctitis and Enteritis

Clinical Benefits
Mechanisms of Action
Journal References
Indications
Hyperbaric Oxygen Therapy for Radiation Proctitis and Enteritis

Hyperbaric Oxygen Therapy (HBOT) is an adjunctive therapy used to treat various conditions including radiation proctitis and enteritis. During treatment, patients breathe 100 percent oxygen while inside a treatment chamber that has been pressurized. This results in hyperoxygenation of blood and tissues which promotes angiogenesis, collagen synthesis, epithelization and improves leukocyte function.

The course of a hyperbaric treatment typically lasts six–eight weeks (Monday–Friday) depending on the severity of the condition, as well as the patient’s individualized progress. Patients can expect each treatment to last approximately two hours. Near the 20th treatment, patients are evaluated to review their progress and consider the need for additional treatments.

During treatment, patients can expect the following to ensure a pleasant experience:

- Patients may sleep, listen to the radio, or watch television or movies
- A hyperbaric technician is available chamber-side at all times
- Patients will be evaluated by a hyperbaric-trained physician prior to and following all treatments.

RADIATION PROCTITIS AND ENTERITIS INDICATIONS

All patients with a history of pelvic radiation with documented radiation proctitis and enteritis are candidates for HBOT.

CONTACT INFORMATION:
Abbott Northwestern Hospital
Wound and Hyperbaric Clinic, W4300
800 E. 28th Street
Minneapolis, MN 55407
612-863-9774
Radiated tissue demonstrates shallow oxygen gradients within the radiated field. Low oxygen gradients prevent revascularization. HBOT creates steep oxygen gradients which stimulates vascular endothelial growth factor (VEGF) release and induces the appearance of platelet-derived growth factor (PDGF) receptors. This results in the promotion of capillary budding and collagen synthesis.


JOURNAL ARTICLES


FURTHER INDICATIONS FOR HYPERBARIC OXYGEN THERAPY

- diabetic wounds
- soft tissue radionecrosis
- radiation cystitis
- chronic refractory osteomyelitis
- recipient site preparation for failed graft or flap
- preservation of compromised skin grafts and flaps
  - osteoradionecrosis (treat and prevent)
- progressive necrotizing infection (necrotizing fasciitis, gas gangrene)
- acute traumatic ischemic injury

Hyperbaric Oxygen Therapy at Abbott Northwestern Hospital follows the accepted indications, standards and procedures recommended by the Undersea and Hyperbaric Medicine Society.