What is Hyperbaric Oxygen Therapy?

Hyperbaric Oxygen Therapy (HBO) is a medical treatment by which oxygen is administered at greater than normal pressure to a patient in order to treat specific medical indications. Long established as the primary therapy in the treatment of medical disorders such as carbon monoxide poisoning and gas gangrene, hyperbaric oxygen therapy is now increasingly being used on an adjunctive basis in the management of a variety of disorders refractory to standard medical and surgical care. HBO has been shown to be particularly effective in treating problem wounds, chronic bone infections and radiation injury.

In HBO therapy, the patient is placed in a specially designed chamber, the pressure in the chamber is increased, and 100% oxygen is breathed. Alveolar oxygen pressure is



increased, causing a rise in plasma oxygen content which results in enhanced tissue oxygen delivery. The amount of pressure increase and the length of time under pressure are determined by the condition being treated. Treatment pressures are usually between 2 and 3 times atmospheric. Treatments usually last from 1 to 2 hours at full pressure.

Enhancement of Healing in Selected Problem Wounds

Accepted indications for hyperbaric oxygen therapy encompass a wide range of clinical conditions including:

- Indications for HBO: Air or Gas Embolism
- Carbon Monoxide Poisoning
- Crush Injury, Compartment Syndrome, and other Acute traumatic Ischemias (localized tissue damage due to reduced blood flow)
- Cyanide Poisoning
- Decompression Sickness
- Selected Refractory Anaerobic Infections
- Exceptional Blood Loss Anemia
- Gas Gangrene
- Necrotizing (localized death of tissue) Soft Tissue Infections
- Inflammatory Bone Disease and Local Bone Death
- Radiation Necrosis: Osteoradionecrosis and Soft Tissue Radiation Necrosis
- Compromised Skin Grafts or Flaps
- Thermal Burns

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