

Hyperbaric Oxygen Treatment (HBOT)

Hyperbaric Oxygen Treatment (HBOT) has been found by some studies to be helpful for Crohn's patients with severe or refractory perineal lesions, a frequent and troublesome complication of the disease.

Hyperbaric Oxygen Treatment (HBOT) is a treatment which introduces pure oxygen to the body in a pressurized chamber. Systemic HBOT involves breathing pure oxygen in a special chamber where the air pressure is greater than one atmosphere, or "ATM" (the pressure of oxygen at sea level). HBOT is believed to work by raising the amount of oxygen being delivered to tissues, and thus enhancing the body's wound-healing and immune system abilities. Under normal conditions, 97.5% of oxygen is carried in the bloodstream bound to hemoglobin and the remaining 2.5% is dissolved in plasma. Above 2 ATM, the oxygen dissolved in plasma significantly increases.

Traditionally, HBOT has been indicated for decompression sickness, air embolism, carbon monoxide poisoning, acute traumatic ischemia (crush injuries that deprive tissues of oxygen), and bacterial invasion of a necrotic wound (in which tissue has died). Today, HBOT serves as primary or adjunctive therapy for a diverse range of medical conditions, including immune disorders, headaches, brain injury, Crohn's Disease, and Cerebral Palsy. Treatment can take place in either single occupant ("monoplace") or multiple occupant ("multiplace") chambers.

Topical hyperbaric oxygen therapy is a technique of delivering 100% oxygen directly to an open, moist wound. Topical hyperbaric oxygen devices consist of an appliance to enclose the wound area (frequently an extremity) and a source of oxygen; conventional oxygen tanks may be used. Topical hyperbaric oxygen therapy has been investigated as a treatment of skin ulcerations due to diabetes, venous stasis, post-surgical infection, gangrenous lesion, decubitus ulcers, amputations, skin graft, burns, or frostbite.