Hyperbaric Oxygen (HBO) therapy is breathing 100% oxygen while surrounded by pressure two or more times atmospheric pressure. This results in very high levels of oxygen in the blood. High blood levels of oxygen allow tissue oxygen levels to become more normal or elevated when disease has impaired delivery of oxygen.

HBO can improve wound healing and immune function in tissues injured by therapeutic radiation for cancer, chronic infection, severe infections, such as gangrene, or limbs receiving inadequate blood flow due to circulatory problems.

High levels of oxygen also help prevent injury to tissue that occurs after blood flow has been temporarily interrupted such as following crush injury, injury to arteries and some surgeries. As a result HBO is a useful tool for patient care for specialists in Orthopedics, Head and Neck Surgery, General Surgery, Vascular Surgery, Wound Care, Infectious Diseases, Radiation Oncology, Urology and Oro-maxillofacial Surgery. Producing high levels of oxygen in the blood remains the definitive treatment for carbon monoxide poisoning and decompression illness.

The Hyperbaric Chamber

Presbyterian/St. Luke’s hyperbaric chamber is unparalleled in the Rocky Mountain region. It is the only chamber in the state that is large enough to allow staff to directly attend the patient during their treatment. We have two large treatment chambers. The 8 ft diameter by 19 ft chamber can accommodate 12 patients. The 8 ft by 14 ft chamber can seat 6 patients. Both chambers can support critically ill patients and are connected by a transfer chamber. This gives staff access to either chamber during a treatment.

Patients may sit or recline during treatments and are directly attended to at all times while in the hyperbaric environment. A team of Hyperbaric Physicians, Hyperbaric Technicians, Registered Nurses and Respiratory Therapists are available to provide individualized care to patients receiving HBO therapy, utilizing invasive and non-invasive monitoring techniques. Mechanical ventilation support is readily available.
Current HBO Indications

Utilizing knowledge gained from clinical experience and basic sciences research, the Undersea and Hyperbaric Medical Society’s Committee on Hyperbaric Oxygen has approved the use of HBO as adjunctive or primary treatment for the diseases and conditions listed below.

- Air or Gas Embolism
- Carbon Monoxide Poisoning
- Carbon Monoxide Poisoning Complicated by Cyanide Poisoning
- Clostridial Myositis and Myonescrosis (Gas Gangrene)
- Crush Injury, Compartment Syndrome and Other Acute Traumatic Ischemias
- Decompression Sickness
- Arterial Insufficiencies:
  - Central Retinal Artery Occlusion
  - Enhancement of Healing In Selected Problem Wounds
- Severe Anemia
- Intracranial Abscess
- Necrotizing Soft Tissue Infections
- Osteomyelitis (Refractory)
- Delayed Radiation Injury (Soft Tissue and Bony Necrosis)
- Compromised Grafts and Flaps
- Acute Thermal Burn Injury
- Idiopathic Sudden Sensorineural Hearing Loss

Hyperbaric Medicine Center

Patients can be seen on an inpatient or outpatient basis, depending upon their needs. Individualized case review with the Hyperbaric Medicine Center’s medical staff is encouraged for all referrals to optimize patient care.

Hyperbaric Staff

Hyperbaric Medicine is a recognized medical specialty by the American Board of Medical Specialties. The physicians associated with the Hyperbaric Medicine Center are Board Certified in Undersea & Hyperbaric Medicine. Our center is one of the few centers nationally that has two full-time practicing Undersea and Hyperbaric Medicine board-certified physicians.

Special Services Available Through the Center:

- **Wound Care**: Essential for optimal wound healing both for those receiving HBO and those not in need of the modality.
- **Transcutaneous Oximetry**: Complements non-invasive arterial analysis in predicting wound healing ability.
- **Diver Fitness Evaluation**: Complete evaluation of diving fitness for recreational and commercial divers.
- **Free Phone Consultation**: In association with the Diver’s Alert Network (DAN), free phone consultations are available regarding recreational SCUBA diving health & safety.