As a referring physician, we report to you at Wound Healing Center Columbus Regional Healthcare System, we offer your patients access to state of the art wound care and hyperbaric oxygen therapy. Our comprehensive approach enables us to heal chronic wounds in as little as eight weeks. Upon referral, we treat your patient’s wound, while you continue to manage all other aspects of their care.

“Hyperbaric Oxygen Therapy is safe and there is no downside to putting a patient in a chamber, – just the potential to heal.”

~ Dr. John Gambol, Hyperbaric Medical Officer

References
Restoring Quality of Life for Your Patients

WHAT IS HYPERBARIC OXYGEN THERAPY?

Hyperbaric oxygen therapy (HBOT) is the administration of 100% oxygen in a pressurized environment. Diffusing oxygen throughout the body promotes angiogenesis, allowing a chronic wound to get the nutrient and oxygen rich blood it needs to heal. Specialized wound care — including HBOT — is often necessary for optimal treatment of chronic wounds. HBOT is an effective adjunctive therapy used in conjunction with advanced wound care. Along with proper attention to nutrition and other underlying medical problems, we achieve greater healing results.

HBOT IS A PROVEN TREATMENT FOR:
• Chronic refractory osteomyelitis
• Lower extremity diabetic ulcers
• Radiation cystitis
• Radiation necrosis
• Failed skin grafts

THE NEED

• 6.5 million Americans are estimated to have wounds (Singer AJ, 1999) (Crovetti G, 2004)
• Obesity, diabetes and increasing elderly populations substantiate the need for wound care
• In 2004, over 71,000 diabetic lower-limb amputations were performed (Center for Disease Control and Prevention, 2008)
• The economic costs of wound care can be mitigated through a wound care program

Hyper- Oxygenation

Enhances in vitro phagocytosis in regions of limited perfusion
Allows higher amounts of oxygen to be diffused into the plasma

Severe blood loss anemia (unable to carry oxygen)
Crush injury, compartment syndrome graft, and flap salvage (decreased perfusion)
Edema (increased diffusion barrier)

Vasoconstriction

Decreases neutrophil activation, preventing accumulation of white blood cells
Reduces edema allowing better diffusion of oxygen and nutrients to tissues
Crush injuries
Acute burns
Compartment syndrome

Angiogenesis

Increases neovascularization by angiogenic stimulation
Stimulates cell differentiation in the form of blood vessels
Increases production of growth factors
Enhances extra cellular matrix formation
Graft and flap salvage
Osteoradionecrosis
Radiation endarteritis obliterans
Chronic wounds

Fibroblast Proliferation

Stimulates proliferation and collagen synthesis, both of which are oxygen dependent
Increases the overall oxygen gradient between tissues and the central hypoxic area
Chronic wounds
Radiation-induced injury

Leukocyte Oxidative Killing

Increases intracellular leukocyte killing
Accelerates microbial oxidative killing
Necrotizing soft tissue infections
Chronic osteomyelitis

Toxin Inhibition

Enhances oxidative killing of bacteria by leukocytes and macrophages
Clostridial gas gangrene
Decreased cardio toxins

Antibiotic Synergy

Improves oxygen dependent transport of certain antibiotics across bacterial cell walls
Creates an adverse environment for anaerobic bacteria
Sepsis
Necrotizing infections