

HMS

HYPERBARIC
MEDICAL SERVICES

Wound Care & Dive Medicine



DR. JAMIE MARIE BIGELOW MD, FCCP

Dr. Bigelow completed undergraduate work at Columbia University in 1985. She then attended medical school at the University of Miami in 1990, and residency in Internal Medicine at Harvard University's New England Deaconess Hospital in 1990-93. She completed fellowship in Pulmonary and Critical Care Medicine at UCSF in 1996. Dr. Bigelow began her private practice in Pulmonary and Critical Care Medicine at Saint Francis Medical Center in 1999 and later added Sleep Medicine in 2007. An enthusiastic diver, Dr. Bigelow became certified in Hyperbaric Medicine in 2000 and worked with Dr. Cianci as a member of Baromedical Associates. She became sub-specialty board certified in Undersea & Hyperbaric Medicine (ABPM) as of January 2011 and served as medical director of the Hyperbaric Department at St. Francis Memorial Hospital from 2011 through 2014. In addition to Undersea and Hyperbaric Medicine, Dr. Bigelow is board certified in Internal Medicine, Pulmonary, Critical Care and Sleep Medicine.

Hyperbaric Medical Services
2107 O'Farrell Street
San Francisco, CA 94115

Phone: 415.345.1246
Fax: 415.829.7632
hyperbaricmedicalservices.com

CASE STUDY

ARTERIAL THROMBOSIS AND HYPERBARIC OXYGEN THERAPY

Peripheral arterial occlusion may result from a number of etiologies, resulting in gangrene and amputation, and is usually catastrophic in its presentation. However, not all arterial occlusions present as emergent events. The standard of amputation of necrotic tissue leaves the patient with diminished digit length, and provides not only a cosmetic but functional failure. Hyperbaric oxygen increases the availability of oxygen to compromised tissues through increased concentrations of oxygen in the circulating plasma, providing for new tissue growth in vascularly compromised tissues through neovascularization as well as the establishment of granulation tissue. The following case study illustrates the efficacy of hyperbaric oxygen therapy in the treatment of gradual arterial occlusion.

This patient is a 64 year old with significant Raynaud's disease, which was unresponsive to conventional interventions. After a particularly cold December, she noted the development of painful necrotic areas on the distal tips of fingers on both hands. Despite pain management, warming, and beta blockers, the digits continued to necrose. She was referred to a vascular surgeon who recommended sympathectomy and amputation of the distal tips of the affected fingers. The patient refused, and was referred by her dermatologist for a trial of hyperbaric oxygen therapy.

The patient started treatment on December 18th, and after three weeks of hyperbaric oxygen, an enzymatic debriding agent was started.

Patient healed in 4 weeks with hyperbaric therapy and conservative wound care. Finger length was preserved and the patient underwent a sympathectomy as a preventative measure.

