

Healing all wounds: Hyperbaric Oxygen Therapy

Carol L Henricks, MD

A wound is injury to an organism, whether it comes from external sources or disease processes. Wound healing is initiated by intracellular processes that are triggered by the injury process and activated by Oxygen. Oxygen is the most powerful healing treatment available. Oxygen is necessary for every healing reaction that takes place in the body. If HBOT can heal a non-healing diabetic foot ulcer, why can't it heal a stroke or macular degeneration? The answer is that it does promote healing in all tissues.

Dr. Richard Neubauer is the grandfather of using HBOT to treat neurological conditions in the US. In the 1970's Dr. Neubauer noticed that when he was providing HBOT treatment for large non-healing bed sores, his patients who had large strokes or advanced Multiple Sclerosis had improvement in their neurological status as well as healing their bed sores. So what was going on?

Let's discuss a hypothetical patient (a synthesis of data from multiple patients treated over the past 10 years): a 67 year-old man with type II Diabetes, macular degeneration who has just had a large right hemisphere stroke and is paralyzed on the left side of his body.

Hyperoxygenation triggers healing mechanisms in the whole body. When you are hyperoxygenating the diabetic foot wound, you are also hyperoxygenating the brain lesion (stroke or MS). Healing principles apply. In the hyperbaric oxygen chamber, you are hyperoxygenating injured tissues. The extra oxygen is critical to the healing intracellular reactions that need to take place.

Hyperoxygenation triggers release of stem cells. Released stem cells travel to areas where there is injured tissue, and integrate to repair the wound.

Intracellularly, extra oxygen creates oxygen radicals which interact at a DNA level to upregulate healing and down regulate inflammatory and destructive processes. New blood vessel growth into hypoxic tissue is stimulated.

NorthStar Neurology, PC 7496 N. La Cholla Blvd. Tucson, AZ 85741 p: (520) 229-1238 f: (520) 229-1242

NorthStar Hyperbaric 7598 N. La Cholla Blvd. Tucson, AZ 85741 p: (520) 229-2122 f: (520) 797-5555