**HBOT - Pre and Post OP & Plastic Surgery**

Oxygen could be one of the most versatile and powerful agents available to the modern medical practitioner. A lack of sufficient oxygen in the body can cause tissue and cells to die, toxins accumulate in the blood stream, brain function to diminish or become impaired and damage to organs. Eventually, it will kill us! We can live without food for three weeks...without water for three days...without oxygen for three minutes!

But, what happens to the body when the body is immersed in oxygen under pressure as in a HBO chamber? Tissues and cells are stimulated to growth and repair, toxins are other impurities are forced out by the oxygen, the immune system is supported, neural brain function increases, bacterial growth is inhibited and wounds heal faster. Oxygen...Mother Nature's Miracle Drug!

Even post-surgical HBO therapy has its benefits. Since saturating the body with oxygen has residual affects, HBO therapy prior to surgery reduces the chance of scar tissue forming and reduces inflammation and swelling post-surgery.

Regardless, wound healing is a complex, delicate process. Many factors can affect healing including diet, alcohol consumption or even stress. There are three phases to healing:

1. The inflammatory phase - Beginning immediately, this phase lasts two to six days during which the bleeding stops, white blood cells fight bacterial infection and collagen formation begins (collagen is what scars are made of and what holds the wound together). In this phase, the wound is usually warm, red, swollen and painful

2. Proliferative phase - This next phase usually continues for about three to four weeks. In this phase, collagen continues to be produced, pulling the edges of the wound together and new capillaries (tiny blood vessels) are formed to aid in healing. The new cells that help keep the wound clean can cause it to be wet, weeping or white or yellow in appearance.

3. The maturation phase - This slow process entails even more collagen to strengthen the wound. Then scar ‘remodeling’ takes place when the excess collagen in the scar breaks down and changes a thick, red, raised scar to a thin, flat, white scar. This takes place over a period of months to year.

At every phase of wound healing, HBO therapy is beneficial. New tissue striving to fill the dead tissue wound space competes for oxygen. This can cause inflammation and swelling. HBO therapy provides this additional oxygen. HBO therapy also increases collagen production which helps wounds heal faster with less scaring.

Under normal circumstances, oxygen is transported through the entire body only by the red blood cells, which carry 98% of their capacity for oxygen. During HBO therapy, oxygen is dissolved into all the body’s fluids and tissues and can even be carried to areas where the circulation is compromised or even blocked. Bruising and swelling associated with many cosmetic surgical procedures is reduced and clients actually feel better overall. After a laser procedure, lingering redness and swelling is a problem for many clients. HBO therapy has shown to be exceedingly effective in reducing that redness.

**Cosmetic Surgery and Hyperbaric Oxygen Therapy**

Hyperbaric oxygen is a safe way to alter the inflammatory process to help wound healing. It decreases pain, swelling and inflammation in tissues, and it has an anti-bacterial effect. Patients who had HBOT pre and post cosmetic surgery seem to have a shorter recuperation period. And scars have been shown to heal better with hyperbaric oxygen therapy.
**Healing with Hyperbaric Oxygen Therapy**

Plastic Surgery, and Reconstruction Surgery in a health person can heal up to 75% faster using HBOT before and after surgery. Less pain, fewer scars, less down time for the patient, and less infections are reported. Patients can return to work faster, with less bruising, or swelling.

**Hyperbaric Oxygen Therapy**

Hyperbaric Therapy, also known as Hyperbaric Oxygen Therapy, hbo or hbot, is a specialized therapy that uses an increase in atmospheric pressure in order to allow the body to incorporate more oxygen into blood cells, blood plasma, cerebral-spinal fluid, and other body fluids.

**Low Pressure Hyperbaric Treatment for Post Surgical Wound Healing**

Mohs cancer surgery results in a large open wound which maybe be closed with a flap or skin graft or allowed to heal with secondary intention. Flaps and skin grafts often result in significant scarring of the skin. Normal healing of a defect or wound over the forehead may take up to 12 weeks to close by secondary intention. Using daily low pressure hyperbaric air chamber treatments, a 3 cm x 4 cm defect of the forehead healed in 4 weeks.

**Recovery From Plastic Surgery, Cosmetic Surgery, & Laser Resurfacing**

Plastic Surgery, and Reconstruction Surgery in a health person can heal up to 75% faster using HBOT before and after surgery. Less pain, less scars, less down time for the patient, less infections. are reported. Patients can return to work faster, with less bruising, or swelling. Pre- surgery Hyperbaric session is recommended. Then 5-10 treatments after Plastic or cosmetic surgery of any type.

**Stress Slows Wound Healing**

In a study of laboratory mice, Phillip Marucha, professor of periodontics at the UIC College of Dentistry, and his colleagues found that psychological stress, brought on by confinement, delayed the closing of wounds by more than 45 percent.