

# PLASTIC SURGERY & HYPERBARICS

Whether a patient's surgery is cosmetic or reconstructive, Hyperbaric Oxygen Therapy (HBOT) is a natural tool that may aid in the healing process and shorten recovery time. Patients undergoing surgery face many post-operative challenges similar to traditional surgery but may also be effected by specific post-operative challenges unique to plastic surgery. HBOT is an option that may speed healing while minimizing the effects of these other challenges. The high complication rate of these surgeries is attributable to blood supply disruption resulting in ischemia, necrosis, infection, wound dehiscence and excessive scarring. HBOT improves this by inducing new blood vessel growth. Many surgeons now recommend pre and/or postoperative HBOT to their patients in order to enhance their healing, recovery and results.

## PHYSIOLOGICAL BENEFITS:

- Quicker healing
- Less Scarring, Bruising, Infection

## ENHANCES HEALING & RECOVERY:

- Reduces Inflammation
- Minimizes Pain & Discomfort
- Reduces Swelling

## SUPPORTS HEALING AT THE CELLULAR LEVEL:

- Promotes Anti Inflammatory Proteins
- Improved Angiogenesis Enhancing Bloodflow to Tissue
- Induces Fibroblast Activatio
- Enhances Collagen Production
- Stimulates Neovascularization and Vasodilation
- Stimulates Bone Remodeling

## REDUCES RISK OF INFECTION :

- Elevates Phagocytosis To Above Normal Levels
- Enhances Microbial Activity
- Increases Intracellular Leukocytes

## Study: Hyperbaric Oxygen Preconditioning Can Reduce Post Abdominoplasty Complications: A Retrospective Cohort Study.

A study published in 2019 examined the effects of hyperbaric oxygen on wound healing as it has been found to have positive preconditioning effects in animal models. Patients who received preoperative HBOT were compared with patients who did not receive HBOT. The study determined the efficacy of preoperative HBOT, conducted before abdominoplasty, on postoperative complications.

"Based on the beneficial effects of preoperative HBOT in our study, it could be argued that the use of preoperative HBOT preconditioning could potentially benefit patients undergoing several other surgical procedures. The treatment is safe and well-tolerated and can be easily conducted for most patients."

Tali Friedman, MD, Shaked Menashe, MD, Geva Landau, MD, Matan Sherf, MD, Itay Wisner, MD, Yaakov Seligman, MD, Mony Friedman, MD, Amir Hadanny, MD, Shai Efrati, MD, Lior Heller, MD. (2019).

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