

VENICE PLASTIC SURGERY

A.E. HAAS, M.D.

Cosmetic, Reconstructive, Face, Breast, and Hand Surgery

Wounds - Hyperbaric oxygen

When we talk about HBO in the wound clinic we are not talking about the movies. HBO stands for hyperbaric oxygen. We use this mode of treatment sparingly. It is used to get more oxygen to the wound. This is done by putting the patient into a pressurized chamber or tube. Some chambers are only large enough for one or two people while others may hold a dozen or more. After entering the diving bell like chamber pressure is increased several atmospheres. We sometimes refer to the rooms as diving chambers because the pressure is like a scuba diver going to a depth of 160 feet below sea level. Some think that additional oxygen is useful when on the surface of the skin but this is wrong. Only oxygen supplied by the bloodstream is of benefit for wound healing.

When circulation is poor so is oxygen delivery to the wound. If there is only half the normal circulation then maybe only half of the oxygen you need gets to the wound. By doubling the pressure of oxygen to the wound you can then get a normal amount of oxygen. Triple the pressure and get higher than normal oxygen delivery.

The problem not solved by HBO however is that wounds need more than just oxygen to promote healing. No other nutrients that may be in short supply are improved with just a better oxygen level. If circulation is half normal so are antibiotic delivery and vitamin and mineral supplies. Waste products of metabolism get backed up and poison the wound area.

Another problem with HBO is that it can only be used for a few hours a day. Obviously it would be of more use if oxygen levels could be elevated all day long. The problem is that too much oxygen can actually be toxic in itself. From a practical standpoint it is also difficult to keep someone pressurized all day anyway. So many people think that if a little of something is good for you a lot is better but this is rarely the case.

In practice research has shown limited success. The cost is high. Many cannot tolerate the close confines of the chamber. Never-the-less we occasionally use this alternative when other things have failed and HBO seems as to be beneficial. I do believe that in some cases HBO can be useful and should be used. We do offer it to selected patients.

**The above represents the opinion of A. E. Haas, M.D.
Venice Plastic Surgery, Venice Wound Center, Lakeside Medical Center**

Just call us directly. No referral needed unless required by your insurance company

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