

VENICE PLASTIC SURGERY

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Cosmetic, Reconstructive, Face, Breast, and Hand Surgery

Wound Treatments - PEROXIDE = Poison

Peroxide is most commonly used in an attempt to cleanse wounds. This oxidizing agent works only briefly, which makes it a feeble germicide. And, since it has minimal tissue penetration, it cannot even get to the bacteria that cause a wound infection. A wound infection only results from bacterial invasion into tissues. Wound colonization results from surface bacteria and is of minimal clinical significance. This surface bacteria is all that hydrogen peroxide acts against, and minimally at that.

So why, then, do we let people use alcohol, Betadine® scrub, or hydrogen peroxide on wounds? These substances, which are often used on open wounds, can only make them worse. Telling a patient to irrigate his wound periodically with peroxide or alcohol is like prescribing acid or fire; chemical burns result. "Apply acid, burn wound 4x daily, then cover with a dry dressing." Is this what we want?

In fact, peroxide is tissue toxic and may actually increase the possibilities of wound colonization turning into infection. Like alcohol and a number of other common agents, peroxide is not a bacterial selective chemotherapeutic agent. Bacteria, having capsules are resistant to chemicals whereas human cells below the skin level are unprotected. Peroxide **instantly** dissolves red blood cells on contact and is why we use it to clean fresh blood splatters.

So what do we do? First, throw away all the caustic agents. Next, buy some mild soap and washcloths (I use plain 'ol paper towels in the office). Ways to treat a true wound infection include cutting it out and/or antibiotics. The only thing we can do on the surface is decrease the amount of bacterial wound colonization. This is best done by washing with soap and water, then rinsing with tap water to remove the soap. Sterile saline or water is not usually needed. After this, the wound should usually be prevented from becoming dry or desiccated. If there is a mild bacterial invasion, I do not use ointments as Neosporin®. I use water soluble antibiotic creams instead. Some as Silvadene® are bacterial selective agents that do not cause tissue destruction yet actually penetrates wounds and kill bacteria.

Wounds covered with a dry scab may often be left alone as the underlying tissues are prevented from being further desiccated by the eschar. If puss or infection develops underneath then the scab must be removed. If there is a large wound with full-thickness skin loss, then an excision and skin graft should be considered for quicker and better healing.

Patients unknowingly use caustic agents such as rubbing alcohol and hydrogen peroxide on their wounds. It is up to us as physicians to educate patients not to use these caustic agents. The first step we can take is by not using them ourselves. Many doctors are still telling patients to use peroxide because historically we used it often.

Many people use Neosporin for wounds. I did too at one point. There has been controversy that people may be allergic to it. Some wounds turn red where Neosporin has been used. I believe these are low grade infections, not allergic reactions. Petroleum based topical products can occlude pores and areas that would allow wound drainage thus promoting the infection rather than draining it. There is a water based Neosporin **Cream** that would be better, but it is hard to find. Here again, I frequently use Silvadene, but this is a prescription medication.

**The above represents the opinion of A. E. Haas, M.D.
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Just call us directly. No referral needed unless required by your insurance company

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