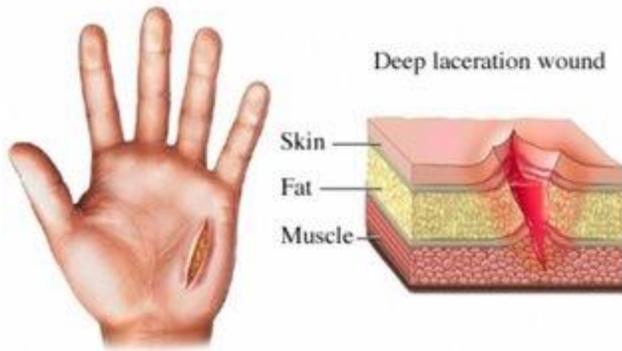


# Laceration Repair in the Wilderness

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## The Scenario

It always happens by accident. You're using your new, lightweight pack saw to collect downed wood for an evening fire when the saw slips and slices into the back of your left thumb. Blood flows immediately, and you feel a rush of pain up your hand. You're four days' hike from civilization and the cut looks like it needs stitches.

Let the first aid begin. You apply pressure and the bleeding stops. After irrigating the wound with clean water, you reach into your pack to find your sewing kit and sutures. But should you really be stitching up this

cut?

The answer doesn't necessarily hinge solely on your training. I've discussed this subject with emergency physicians who repair lacerations daily, as well as with first responders who learned from their grandmothers that if they could sew cloth, they could sew skin. My personal opinion is that people should take great pause before sewing a laceration outside of a medical exam room. In my mind, the decision about whether or not to sew a wound in the field is related to the issue of "wound appropriateness."

Wound appropriateness takes both wound size and cleanliness into account. A small wound that remains contaminated with dirt and debris shouldn't be closed because the closure would trap all the necessary ingredients for an infection. On the other hand, a small wound that's fairly clean probably doesn't need stitches anyway - perhaps not even in the Emergency Department! An article (1) reviewed this particular topic and came to the conclusion that uncomplicated lacerations less than 2 cm (just under an inch) didn't heal better or ultimately appear better when sutured (stitched) compared to when they were left unsutured. A small, debris-filled wound should be cleaned with water that is disinfected enough to drink, and then left open to heal or closed (e.g., skin edges brought together) with an adhesive bandage (strips).

My preferred technique for caring for small wounds is to clean them thoroughly, then use skin (tissue) glue to make the initial closure, after which I cover the entire wound with a piece of gauze and duct tape or with Tegaderm (a thin, clear, plastic adhesive covering) for protection. Some people have used "super glue" to close wounds, but this is not recommended for several reasons. Any laceration can be sutured by a physician in a delayed fashion upon your return, if such a repair is necessary for cosmetic or other reasons.

Any large wound needs to be examined with three things in mind:

How contaminated is the wound?

How much will the wound bleed?

Are there any other structures involved?

Every large wound will have different answers to these questions, which is where clinical acumen comes into play. Always prioritize control of blood loss, and consider closing the wound(s) loosely with stitches if this is the only way to staunch the bleeding. If the wound is deep, there may be damage to structures beneath the skin, such as tendons, ligaments, and/or nerves, any of which may require formal wound care not possible in the outdoors. Therefore, consider evacuation for all large wounds. While evacuating, the wound should be covered and compressed with a clean bandage.

(1) Emergency Medicine Journal 2007;24:217-218; doi:10.1136/emj.2007.046813

