

THE LACERATION COURSE: HIGH-YIELD INFORMATION

Wound Irrigation

- "The Solution to Pollution is Dilution"
- Wound irrigation is felt to be most important step to reduce infection
- Irrigate wounds well
- 50-100ml of water per centimeter of laceration length
- Tap water is safe and effective as saline, no difference in infection rates
- Goal is to generate 10-15 psi to overcome biofilm, remove contamination
- Larger syringe (50-60cc) allows for more efficient irrigation
- Betadine and chlorhexidine do not show benefit in reducing infection compared to water alone

Time Frame for Staple and Suture Removal

Face: 3-5 days
 Scalp: 5-7 days
 Low-tension extremity: 6-10 days
 High-tension extremity: 10-14 days
 Abdomen: 6-12 days
 Chest and back: 6-12 days

Sample Procedure Note

Laceration repair. Performed by me. Verbal consent obtained. This is a 3cm laceration to the volar aspect of the right forearm. After wiping the wound clean of dried blood, 5ml of lidocaine and epinephrine was used for anesthesia, injected into the wound margins. The wound was irrigated with 300cc of saline with syringe and splashguard. No neurovascular involvement. Several small foreign bodies were removed. Closure with 5 interrupted 3.0 Prolene sutures. There was good wound re-approximation. Topical antibiotic was applied and the wound was bandaged. Patient tolerated the procedure well. No complications. Follow-up or return in 10 days for suture removal.

Sample Discharge Instructions

Keep a close eye on the wound; come back if you have any fever, redness, pus, or streaks coming from the wound. You may wash the wound with soap and warm water, but do not submerge or soak in water; no swimming. You may apply a loose bandage with topical antibiotic ointment until the sutures are removed. Come back in 10 days for suture or staple removal. If indicated, you will be given a prescription for antibiotics. Not all lacerations require antibiotics. Ibuprofen or Tylenol for pain; other pain medications as prescribed.

Suture Types (And When to Use)

- Prolene or Ethilon: everywhere except inside the mouth
- Vicryl-absorbable: under the skin-layered closure; some advocate for children, face, if unreliable for returning for removal
- Chromic gut: inside the mouth, wet mucosa of the lip

Needle Types (And When to Use)

- Small needle (13mm): facial, fingers, small lacerations, finer work
- Large needle (24mm): extremities, trunk, larger lacerations, more "bite"
- Reverse cutting (cutting edge on outside; convex surface): tougher tissues, less risk of cutting through tissue
- Regular cutting (cutting edge on all three sides): most commonly used in acute setting, skin

Busting Common Myths

- Epinephrine is safe to use for digital blocks
- Sterile gloves are NOT needed
- Sterile field is not required
- Tap water is completely safe to use for irrigation
- Squeezing a saline bottle does not generate enough pressure to irrigate a wound

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Billing and Coding Basics

- Provide as much detail as you can about the wound and the repair
- Location: be specific (left/right, fingers, crossing joints, etc.)
- Length in centimeters
- Complexity: accounts for layered closure, contamination, debridement

When Transferring

- YOU call and speak to the attending physician; do not have a nurse or medical assistant do this
- Make sure they have the proper service you are advising for the patient
- Provide a copy of any imaging and the urgent care notes
- If there will be a delay, consider irrigating the wound and bandaging, parenteral antibiotics if indicated/available
- Don't promise the patient as to what will or will not be done

When to Use What

Sutures

- More precise, better tissue control
- Time-consuming
- Suture costs less than a reliable stapler

Staples

- Fast, excellent hold
- Similar scarring to sutures
- SCALP! (Large trunk and extremity wounds where cosmetic outcome is less concerning; discuss with patient for shared decision-making.)
- Must have high-quality stapler!

Dermabond

- Can be used more than we think
- Wound must be dry, not oozing
- Careful around eyes; use erythromycin ointment to remove if gets in eyes

Steri-strips

- Must have benzoin!
- Low-tension wounds
- Good for skin tears
- Can combine with Dermabond or sutures for extra strength

Medicolegal Aspects

- Exclude foreign bodies: Look, feel, imaging; remove or refer appropriately
- Provide good discharge instructions, reasons for returning, going to ED
- Diagnosing tendon injuries
- Document neurovascular and tendon exam before and after
- Identify open fractures and treat/refer appropriately
- Document; if not charted, it didn't happen
- Antibiotics for dog bites if repaired
- Remove rings from fingers for any arm, hand, finger injuries

ABOUT THE LACERATION COURSE



The Information You Need to Confidently Manage Lacerations.

All from a Board-Certified Emergency Physician.

Overwhelmed with the thought of managing lacerations on your own?

This course will give you the knowledge and confidence to manage most any wound you will encounter in the acute care setting.

