

HAND LACERATIONS



- Treat lacerations promptly with careful evaluation, debridement and lavage
- Close wounds only when clean, using suture, spontaneous healing or skin grafts
- After injury, elevate the hand to control swelling and begin motion early
- Nail bed injuries require special treatment

Evaluation

- Treat open injuries of the hand promptly. Perform a local examination to check circulation, sensation and motor function.
- Gently examine the wound using aseptic technique to determine if it is clean or contaminated. A contaminated wound contains foreign material and crushed or dead tissue.

TREATMENT

1. Debride and lavage all wounds in the operating room or emergency area. If a local anaesthetic is needed, use 1% lidocaine without epinephrine.

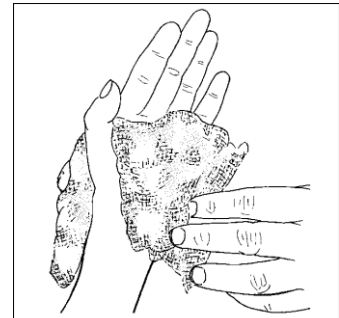
2. Administer tetanus toxoid and antibiotics. Obtain X-rays to check underlying bones and joints.

3. Stop bleeding by compression with sterile gauze. If necessary, extend the wound, being careful not to cross skin creases in the palm or digits. Remove all foreign material and devitalized tissue, but *do not excise any skin unless it is dead*.

4. If the wound is clean, repair extensor tendons but not flexor tendons or nerves.

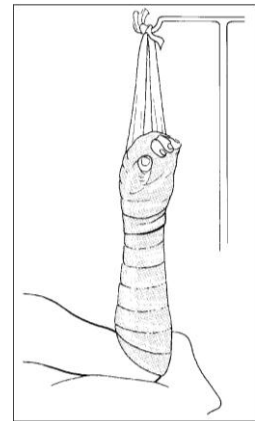
5. Close a clean wound over a drain using interrupted sutures if there is no tension on the skin. If the wound is contaminated, delay closure until after a second debridement. Wounds less than 1 cm square will granulate spontaneously. Use skin grafts for larger wounds, which will not close without skin tension.

6. Cover the hand with sterile gauze and a compression dressing.



7. Apply a plaster splint to hold the wrist in 20 degrees of extension, with the metacarpophalangeal joints in 90 degrees of flexion and the interphalangeal joints in full extension. Keep the fingertips exposed unless they are injured.

8. To control edema, elevate the limb for the first week, either by attachment to an overhead frame or by the use of a triangular sling.



9. Begin active exercises as soon as possible and inspect the wound in 2–3 days to remove drains.

Nail bed injuries

- Subungual haematoma causes severe pain resulting from a collection of blood deep under the nail. This can be seen as a dark red to black collection beneath the nail.
- To relieve pain, make one or two small holes in the nail with a hot safety pin or the tip of sterile number 11 scalpel blade.
- If not repaired, lacerations of the nail bed may result in lasting nail deformity. Remove the nail and, after debridement and lavage, repair the laceration using fine suture.
- If possible, replace the nail over the sutured laceration until it heals and a new nail has begun to grow.