

The First 5 Minutes!

Wounds

Wounds may present in the clinic as the primary injury or in conjunction with other traumatic injuries, such as head trauma or pulmonary contusions. During the primary survey, the trauma team begins with the triage category “X” (exsanguination) to determine whether hemorrhage from a wound site is life-threatening.

If a wound does not exhibit pulsatile bleeding, sterile lubricant should be applied to the wound surface. The wound should then be covered with sterile gauze or laparotomy sponges (“lap sponges”) and bandaged as appropriate. If a wound is actively bleeding and/or demonstrates pulsatile hemorrhage, it should be immediately packed or covered with sterile gauze, lap sponges, hemostatic gauze, or sterile surgical towels, depending on the wound location and accessibility, with direct pressure being applied.

An important principle is not to remove the initial packing or covering material if blood strike-through occurs. Instead, additional layers of absorbent material should be applied while maintaining continuous direct pressure on the site.

The steps described above represent temporary wound management measures performed during the initial stabilization phase. Definitive wound care, including clipping, cleaning, flushing, and repair or bandaging, should be performed later, once the patient has been stabilized and the wounds can be more thoroughly evaluated and explored.

This information is formatted in a card-style reference that can be easily printed and placed with a wound kit in an area readily accessible during trauma triage.

Wound Types



Abrasions

- Partial thickness
- Epidermis sheared off
- Dermis and subcutaneous tissue is exposed.
- Often oozing blood and fluid.
- Often contaminated with debris such as fur, dirt, gravel, etc.



Lacerations

- Wound that cuts through the skin to the deeper underlying tissue, sometimes cutting through muscles and deeper structures.
- Can have smooth or jagged edges.



Puncture

- Deep, narrow wound caused by a sharp, pointed object penetrating the tissues underneath.
- Deceptively small but can have extensive tissue trauma under the skin layer.
- Often contaminated with patient fur that has been pushed deeply into tissues.



Deglove

- Extensive amounts of tissue, muscle, and tendon being torn from underlying structures.
- Can have skin intact but tissue, tendons, blood supply, and muscle under skin are compromised to a larger extent (crushing).
- All tissues can be contaminated, depending on the source of injury.

Suggested Supply List for a Wound Kit

- Sterile water based lubricant
- Sterile gauze and lap sponges
- Sterile surgery towels (2)
- Cast padding and vetwrap
- SWAT-T tourniquet
- Small fluid bag of 0.9% NaCl or LRS
- Hemostatic gauze

Non-pulsatile Bleeding or Oozing Wounds

Wear Gloves. Consider muzzling or placing an e-collar on patient to protect team members, especially if patient is painful.	Apply water based sterile lubricant.	Cover with sterile gauze or lap sponges soaked with sterile 0.9% NaCl or lactated ringers fluid.	Bandage lightly, depending on area of injury	Consider using sticky surgical dressing such as tegaderm or loban over gauze for hard to bandage areas such as the thorax or abdomen.
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Active/Pulsatile Bleeding Wounds

Wear gloves. Consider muzzling or placing an e-collar on patient to protect team members, especially if patient is painful.	Cover or pack with sterile materials: gauze, lap sponges, hemostatic packing gauze or sterilized surgical towels.	Apply digital pressure to wound for at least 20 minutes. Can wrap tightly with vetwrap depending on part of the body, being aware of respiratory constriction with the thorax or abdomen.	Limbs: Can put digital pressure on the main artery leading to the site of the wound. Example: Femoral artery for an arterial bleed on the tarsus.	Limbs: Consider using a tourniquet above the wound for short periods of time to achieve hemostasis until pressure bandages or repair can happen. (10 minutes maximum)	If blood strike through is seen, do not unwrap or uncover the wound. Apply more packing layers while continuing to apply pressure.
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<https://www.stopthebleed.org/>

Picture credit: Christy Tomcik Walker, Claire Tucker