



Survival Medicine

WARNING: *These emergency medical procedures are for survival situations. Obtain professional medical treatment as soon as possible.*

Immediate First Aid Actions

Remember the **ABCs** of Emergency Care: **A**irway **B**reathing **C**irculation

Determine responsiveness as follows:

- (1) If unconscious, arouse by shaking gently and shouting
- (2) If no response -
 - (a) Keep head and neck aligned with body
 - (b) Roll victims onto their backs
 - (c) Open the airway by lifting the chin
 - (d) Look, listen, and feel for air exchange
- (3) If victim is not breathing -
 - (a) Check for a clear airway; remove any blockage
 - (b) Cover victim's mouth with your own
 - (c) Pinch victim's nostrils closed
 - (d) Fill victim's lungs with 2 slow breaths
 - (e) If breaths are blocked, reposition airway; try again
 - (f) If breaths still blocked, give 5 abdominal thrusts
 - Straddle the victim
 - Place a fist between breastbone and belly button
 - Thrust upward to expel air from stomach
 - (g) Sweep with finger to clear mouth.
 - (h) Try 2 slow breaths again.
 - (i) If the airway is still blocked
 - continue (c) through (f) until successful or exhausted
 - (j) With open airway, start mouth to mouth breathing:
 - Give 1 breath every 5 seconds.
 - Check for chest rise each time

- (4) If victim is unconscious, but breathing -
 - (a) Keep head and neck aligned with body.
 - (b) Roll victim on side (drains the mouth and prevents the tongue from blocking airway)

Control bleeding as follows:

- (1) Apply a pressure dressing (Figure V-2)
- (2) If STILL bleeding -
 - (a) Use direct pressure over the wound
 - (b) Elevate the wounded area above the heart

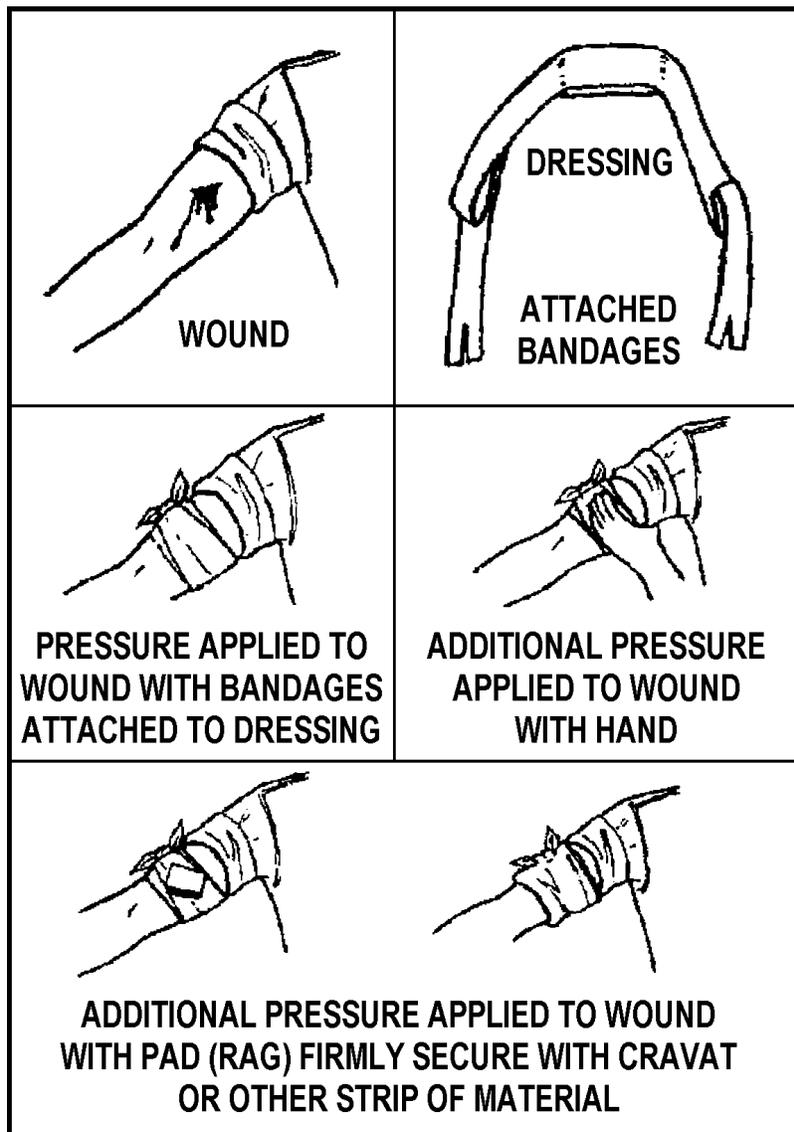


Figure V-2. Application of a Pressure Dressing

- (3) If STILL bleeding -
- Use a pressure point between the injury and the heart (Figure V-3)
 - Maintain pressure for 6 to 10 minutes before checking to see if bleeding has stopped

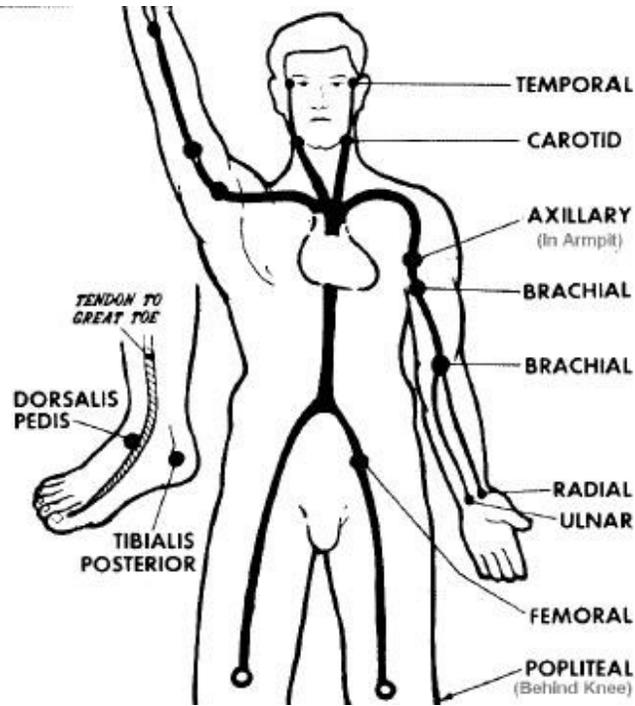


Figure V-3. Pressure Points

- (4) If a limb wound is STILL bleeding -
- Apply tourniquet band just above bleeding site on limb. A band at least 3 inches (7.5 cm) or wider is best.
 - Follow steps illustrated in Figure V-4
 - Use a stick at least 6 inches (15 cm) long
 - Tighten only enough to stop arterial bleeding
 - Mark a **TK** on the forehead with the time applied
 - DO NOT cover the tourniquet
 - If rescue or medical aid is not available for over 2 hours, an attempt to SLOWLY loosen the tourniquet may be made 20 minutes after application. Before loosening -
 - Ensure pressure dressing is in place
 - Ensure bleeding has stopped
 - Loosen tourniquet SLOWLY to restore circulation
 - Leave loosened tourniquet in position in case bleeding resumes

CAUTION: Use of a tourniquet is a LAST RESORT measure. Use **ONLY** when severe, uncontrolled bleeding will cause loss of life. Recognize that long-term use of a tourniquet may cause loss of limb.

Treat for Shock

Shock is difficult to identify or treat under survival conditions. It may be present with or without visible injury.

- (1) Identify by one or more of the following:
 - (a) Pale, cool, and sweaty skin
 - (b) Fast breathing and a weak, fast pulse
 - (c) Anxiety or mental confusion
 - (d) Decreased urine output
- (2) Maintain circulation
- (3) Treat underlying injury
- (4) Maintain normal body temperature
 - (a) Remove wet clothing
 - (b) Give warm fluids
 - DO NOT give fluids to an unconscious victim
 - DO NOT give fluids if they cause victim to gag
 - (c) Insulate from ground
 - (d) Shelter from the elements
- (5) Place conscious victim on back
- (6) Place very weak or unconscious victim on side, this will -
 - (a) Allow mouth to drain.
 - (b) Prevent tongue from blocking airway

Treat fractures, sprains, and dislocations

- (1) Control bleeding
- (2) Remove watches, jewelry, and constrictive clothing
- (3) If fracture penetrates the skin -
 - (a) Clean wound by gentle irrigation with water
 - (b) Apply dressing over wound
- (4) Position limb as normally as possible
- (5) Splint in position found (if unable to straighten limb)
- (6) Improvise a splint with available materials:
 - (a) Sticks or straight, stiff materials from equipment
 - (b) Body parts (for example, opposite leg, arm-to-chest)
- (7) Attach with strips of cloth, parachute cord, etc
- (8) Keep the fractured bones from moving by immobilizing the joints on both sides of the fracture. If fracture is in a joint, immobilize the bones on both sides of the joint

- (9) Use RICES treatment for 72 hours.
 - (a) Rest.
 - (b) Ice.
 - (c) Compression.
 - (d) Elevation.
 - (e) Stabilization.
- (10) Apply cold to acute injuries.
- (11) Use 15 to 20 minute periods of cold application
 - (a) DO NOT use continuous cold therapy
 - (b) Repeat 3 to 4 times per day
 - (c) Avoid cooling that can cause frostbite or hypothermia
- (12) Wrap with a compression bandage after cold therapy
- (13) Elevate injured area above heart level to reduce swelling
- (14) Check periodically for a pulse beyond the injury site
- (15) Loosen bandage or reapply splint if no pulse is felt or if swelling occurs because bandage is too tight

Common Injuries and Illnesses

Burns

- (1) Cool the burned area with water
 - (a) Use immersion or cool compresses
 - (b) Avoid aggressive cooling with ice or frigid water
- (2) Remove watches, jewelry, constrictive clothing
- (3) DO NOT remove embedded, charred material that will cause burned areas to bleed
- (4) Cover with sterile dressings
- (5) DO NOT use lotion or grease
- (6) Avoid moving or rubbing the burned part
- (7) Drink extra water to compensate for increased fluid loss from burns
- (8) Change dressings when soaked or dirty

Heat injury.

- (1) Heat cramps (cramps in legs or abdomen)
 - (a) Rest.
 - (b) Drink water. (Add 1/4 teaspoon of salt per quart)
- (2) Heat exhaustion (pale, sweating, moist, cool skin)
 - (a) Rest in shade
 - (b) Drink water
 - (c) Protect from further heat exposure
- (3) Heat stroke (victim disoriented or unconscious, skin is hot and flushed - sweating may or may not occur - fast pulse)
 - (a) Cool as rapidly as possible (saturate clothing with water and fan the victim). Remember to cool the groin and armpit areas
 - (b) Maintain airway, breathing, and circulation

CAUTION: Handle heat stroke victim gently. Shock, seizures, and cardiac arrest can occur.

Cold injuries:

(1) Frost-nip and frostbite

(a) Are progressive injuries

- Ears, nose, fingers, and toes are affected first
- Areas will feel cold and may tingle
- Leading to numbness
- Progresses to waxy appearance with stiff skin that cannot glide freely over a joint

(b) Frost nipped areas rewarm with body heat. If body heat WILL NOT rewarm area in 15 to 20 minutes, then frostbite is present.

(c) Frostbitten areas are deeply frozen and require medical treatment

CAUTION: In frostbite, repeated freezing and thawing causes severe pain and increases damage to the tissue. DO NOT rub frozen tissue. DO NOT attempt to thaw frozen tissue

(2) Hypothermia

(a) Is a progressive injury

- Intense shivering with impaired ability to perform complex tasks
- Violent shivering, difficulty speaking, sluggish thinking
- Muscular rigidity with blue, puffy skin; jerky movements
- Coma, respiratory and cardiac failure

(b) Protect victim from the environment as follows:

- Remove wet clothing
- Put on dry clothing (if available)
- Prevent further heat loss
- Cover top of head
- Insulate from above and below
- Warm with blankets, sleeping bags, or shelter
- Warm central areas before extremities
- Place heat packs in groin, armpits, and around neck
- Avoid causing burns to skin

CAUTION: Handle hypothermia victim gently. Avoid overly rapid rewarming which may cause cardiac arrest. Rewarming of victim with skin-to-skin contact by volunteer(s) inside of a sleeping bag is a survival technique but can cause internal temperatures of all to drop.

Skin tissue damage

- (1) Immersion injuries. Skin becomes wrinkled as in dishpan hands.
 - (a) Avoid walking on affected feet
 - (b) Pat dry; DO NOT rub. Skin tissue will be sensitive
 - (c) Dry socks and shoes. Keep feet protected
 - (d) Loosen boots, cuffs, etc., to improve circulation
 - (e) Keep area dry, warm, and open to air
 - (f) DO NOT apply creams or ointments

- (2) Saltwater sores
 - (a) Change body positions frequently
 - (b) Keep sores dry
 - (c) Use antiseptic (if available)
 - (d) DO NOT open or squeeze sores

Snakebite

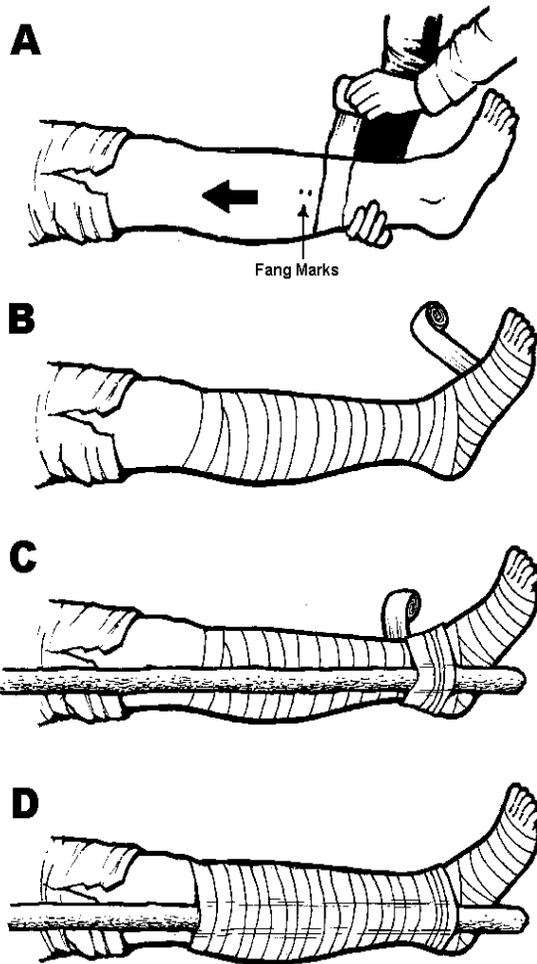
CAUTION: This snakebite treatment recommendation is for situations where medical aid and specialized equipment are not available.

- (1) Nonpoisonous
 - (a) Clean and bandage wound

- (2) Poisonous
 - (a) Remove constricting items
 - (b) Minimize activity
 - (c) DO NOT cut the bite site; DO NOT use your mouth to create suction
 - (d) Clean bite with soap and water; cover with a dressing
 - (e) Over-wrap the bite site with a tight (elastic) bandage (Figure V-6).
The intent is to slow capillary and venous blood flow but not arterial flow. Check for pulse below the over-wrap
 - (f) Splint bitten extremity to prevent motion
 - (g) Treat for shock
 - (h) Position extremity below level of heart
 - (i) Construct shelter if necessary (let the victim rest)
 - (j) For conscious victims, force fluids

Skin irritants (includes poison oak and poison ivy)

- (1) Wash with large amounts of water. Use soap (if available).
- (2) Keep covered to prevent scratching.



Infection

- (1) Keep wound clean
- (2) Use iodine tablet solution or diluted betadine to prevent or treat infection
- (3) Change bandages as needed

Dysentery and diarrhea

- (1) Drink extra water
- (2) Use a liquid diet
- (3) Eat charcoal. Make a paste by mixing fine charcoal particles with water. It will relieve symptoms by absorbing toxins.

Constipation (can be expected in survival situations)

- (1) DO NOT take laxatives
- (2) Exercise
- (3) Drink extra water

Prevent and control parasites

- (1) Check body for lice, fleas, ticks, etc
 - (a) Check body regularly
 - (b) Pick off insects and eggs (DO NOT crush)
- (2) Wash clothing and use repellents whenever possible
- (3) Use smoke to fumigate clothing and equipment

Health and Hygiene

Stay clean (daily regimen)

- (1) Minimize infection by washing. Use white ashes, sand, or loamy soil as soap substitutes
- (2) Comb and clean debris from hair
- (3) Cleanse mouth and brush teeth
 - (a) Use hardwood twig as toothbrush - fray it by chewing on one end then use as brush
 - (b) Use single strand of an inner core string from parachute cord for dental floss
 - (c) Use clean finger to stimulate gum tissues by rubbing
 - (d) Gargle with salt water to help prevent sore throat and aid in cleaning teeth and gums
- (4) Clean and protect feet
 - (a) Change and wash socks
 - (b) Wash, dry, and massage
 - (c) Check frequently for blisters and red areas
 - (d) Use adhesive tape/mole skin to prevent damage

Rules for Avoiding Illness

- (1) Purify all water obtained from natural sources by using iodine tablets, bleach, or boiling for 5 minutes
- (2) Locate latrines 200 feet from water and away from shelter
- (3) Wash hands before preparing food or water
- (4) Clean all eating utensils after each meal
- (5) Prevent insect bites by using repellent, netting, and clothing
- (6) Dry wet clothing as soon as possible
- (7) Eat varied diet
- (8) Try to get 7-8 hours sleep per day