



MANUAL FOR FIRST AID



DIRECTORATE OF FORESTS
GOVERNMENT OF WEST BENGAL



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PREFACE

This manual on first aid is prepared to develop capacities of the frontline staff to encounter emergency situations. Manual is prepared consulting notes, handbooks and guidelines on first aid prepared by different reputed institutions. The lists of references are provided at the end of the manual.

Forest frontline staff works under vulnerable situations for discharging their duties like forest fire control, catching of forest offenders etc. They also face various wild lives. The nature of their work expose them to various risk-prone situations that sometime leads towards meeting an injuries and accidents. They are also often placed in remote locations. It takes longer time to reach nearest hospitals/ health centers for treatments.

Under the circumstances it become very important that Forest staff have some basic knowledge and skills to manage emergency situations like burnt, snake bites, insects bites, bleeding, fractures etc.

We hope that the manual will be helpful for the forest staff to manage emergency situations in their day to day life.

Kolkata, April 2015

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Chapter I

Definition of first aid:

First aid is the provision of immediate care to a victim with an injury or illness, usually effected by a lay person, and performed within a limited skill range. First aid is normally performed until the injury or illness is satisfactorily dealt with (such as in the case of small cuts, minor bruises, and blisters) or until the next level of care, such as an ambulance or doctor, arrives. From a public health perspective, preventing an injury or illness is always better than needing to treat the victims.

Guiding Principles

The key guiding principles and purpose of first aid is often given in the mnemonic “3 Ps”. These three points govern all the actions undertaken by a first aider.

- Prevent further injury
- Preserve life
- Promote recovery

Phases of First Aid

1. Self-aid
2. Assistance from a companion
3. Emergency treatment
4. Initial surgery

First Aid Rules

1. Do not get excited. First, check for danger and then check for responsiveness. Determine whether the victim is conscious. If the victim is conscious, ask him what happened and what is wrong now. If the victim is unconscious, proceed to check the airway, breathing and circulation. Commence resuscitation as appropriate.
2. Do not move injured victim unless it is necessary. If necessary to move a casualty, seek assistance if possible and handle gently.
3. Keeps the victim lying down with his head level with his feet while being examined.
4. Keep the victim warm and comfortable. Remove enough clothing to get a clear. To get a clear idea to the extent of the injury.
5. Examined the victim gently. Treat the most urgent injuries first and then treat the most urgent injuries first and then treat the other injuries to the best of your ability.
6. Avoid allowing the victim to see his own injury. Assure him that his condition is understood and that he will receive good care.
7. Do not try to give any solid or liquid substance by mouth to an unconscious victim nor to a victim who has sustained an injury.
8. Do not touch open wounds or burns with fingers or other objects except when sterile compresses or bandages are not available and it is absolutely necessary to stop bleeding.
9. Do not try to arouse an unconscious person.
10. Seek medical attention immediately.



Chapter II

Scene Survey

When confronted with an accident or illness on duty it is important to assess the situation to determine what kind of emergency situation are dealing with, for provider safety, the victim's safety and that of others.

Do a quick survey of the scene that includes looking for three elements:

- Hazards that could be dangerous to the provider, the victim, or bystanders.
- The cause (mechanism) of the injury or illness.
- The number of victims.

Note: This survey should only take a few seconds.

Initial Assessment

- Goal of the initial assessment:
 - **Visually determine whether there are life-threatening or other serious problems that require quick care.**
- Breathing
- Bleeding
- Shock
- Burn
- Choking
- Heart Attack
- Fractures
- **Determine if victim is conscious - by tap and shout. Check for ABC as indicated:**
 - **A** = Airway Open? – Head-tilt/Chin-lift.
 - **B** = Breathing? – Look, listen, and feel.
 - **C** = Circulation? – Check for signs of circulation.

Note: These step-by-step initial assessments should not be changed. It takes less than a minute to complete, unless first aid is required at any point.



Chapter III

“HURRY CASES” in First Aid

A. Reducing the risk of infected wounds during first aid

Open wounds are prone to infection. Suggestions to reduce the risk of infection include:

- Wash your hands if possible before managing the wound. You could also use an antibacterial hand sanitiser.
- Put on the disposable gloves provided in your first aid kit.
- Try to avoid breathing or coughing over the wound.
- Cleaning of the wound depends on the type and severity of the wound, including the severity of the bleeding. You may just clean around the wound.
- Cover the wound with a sterile dressing. Try not to touch the dressing’s surface before applying it to the wound.

The following measures need to be taken in giving first aid to a victim of an open wound:

1. Stop the bleeding

- Minor cuts and scrapes usually stop bleeding on their own.



–If bleeding continues, raise the injured part

- Apply pressure at a pressure point to slow blood flow.

- Pressure point locations:
 - Brachial (Top of elbow)
 - Femoral (Inside upper thigh)

– With a clean thick cloth (or your hand if there is no cloth) press directly on the wound. Keep pressing until the bleeding stops. This may take 20 minutes or sometimes an hour or more.



This type of direct pressure will stop the bleeding of nearly all wounds—sometimes even when a part of the body has been cut off.



Occasionally direct pressure will not control bleeding, especially when the wound is very large or an arm or leg has been cut off. If this happens:

- Keep pressing on the wound.
- Keep the wounded part as high as possible.
- You can maintain pressure by binding the wound tightly with a bandage or a piece of clean clothing.
- Squeeze at pressure points on the artery that brings blood to that part of the body. Pressure points are where, using the flat part of your fingers, you can push the artery against a bone to shut off or slow down the flow of blood.
- Keep pressing for 20 minutes before looking to see if the bleeding has stopped. Keep pressing with your other hand on the wound itself. Applying pressure is hard work—do not give up!

Precautions:

- Wear medical exam gloves (if possible)
- Using a tourniquet to stop the bleeding usually results in total loss of the arm or leg. Only use a tourniquet if you have no other option. Never use a string or wire. It can cut right through the skin.
- Never use dirt, kerosene, lime, or coffee to stop bleeding.
- When bleeding or injury is severe, raise the feet and lower the head to prevent shock
- Keep blood from getting into any cuts or sores on your skin

2. Clean the wound

–Rinse out the wound with clear water. Wash the skin around the wound with soap and cool, boiled water. If soap irritate the wound, keep it out of the actual wound.

– Any bit of dirt that is left in a wound can cause an infection. If dirt or debris remains in the wound use fresh water to remove the particles (if the wound has a lot of dirt in it, soap helps clean but can damage the flesh).

– When cleaning the wound, be careful to clean out all the dirt. Lift up and clean under any flaps of skin. You can use clean tweezers, or a clean cloth or gauze, to remove bits of dirt, but always boil them first to be sure they are sterile.

– If possible, squirt out the wound with cool boiled water in a syringe or suction bulb.



Precautions:

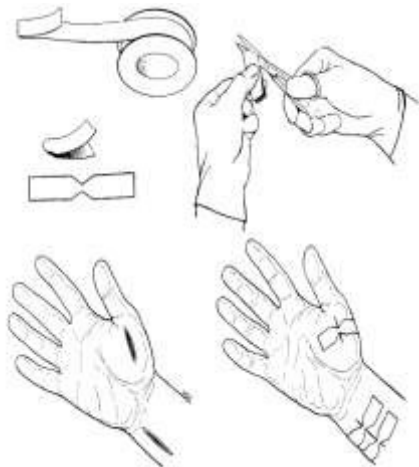
- Never put animal or human feces or mud on a wound. These can cause dangerous infections, such as tetanus.
- Never put alcohol, tincture of iodine, or Merthiolate directly into a wound; doing so will damage the flesh and make healing slower.

3. Cover the wound

- If the bleeding slows, and after the wound has been cleaned, apply a thin layer of antibiotic cream like Neosporin. Then place a piece of clean gauze or cloth over the top. It should be light enough so that the air can get to the wound and help it to heal. Change the gauze or cloth every day and look for signs of infection
- If you have a dirty wound or a puncture wound, and have never had a tetanus immunization, get one within 2 days.
- Dressings and bandages can help keep the wound clean and keep harmful bacteria out.



Large Cuts: How to Close Them



A recent cut that is very clean will heal faster if you bring the edges together so the cut stays closed.

Close a deep cut only if all of the following are true:

- the cut is less than 12 hours old,
- the cut is very clean, and
- it is impossible to get a health worker to close it the same day.

Before closing the cut, wash it very well with cool, boiled water (and soap, if the wound is dirty). If possible, squirt it out with a syringe and water. Be absolutely sure that no dirt or soap is left hidden in the cut.

'Butterfly' Bandages of Adhesive Tape



How to Stop Nosebleeds

- B.
- Sit quietly and upright.
 - Blow the nose gently to remove mucus and blood.
 - Have the person pinch the nose firmly for 10 minutes or until the bleeding has stopped.
 - If this does not control the bleeding . . .
 - Pack the nostril with a wad of cotton, leaving part of it outside the nose. If possible, first wet the cotton with Vaseline or lidocaine with epinephrine



- Then pinch the nose firmly again. Do not let go for 10 minutes or more. Do not tip the head back.
- Leave the cotton in place for a few hours after the bleeding stops; then take it out very carefully.
- In older persons especially, bleeding may come from the back part of the nose and cannot be stopped by pinching it. In this case, have the person hold a cork, corn cob, or other similar object between his teeth and, leaning forward, sit quietly and try not to swallow until the bleeding stops. (The cork helps keep him from swallowing, and that gives the blood a chance to clot.)

C. *Burns*

1. Minor Burns that Do Not Form Blisters (First-degree burns)

- Only the skin's outer layer (epidermis) is damaged.
- Symptoms include redness, mild swelling, tenderness, and pain.
- Usually heals without scarring.

What to Do:

- Immerse in cold water 10 to 45 minutes or use cold, wet cloths.
- » Cold stops burn progression
- » May use other liquids
- Aloe, moisturizer lotion

2. Burns that Cause Blisters, Chemical Burns, and Electric Burns (Second-degree burns)

Do not break blisters. Do not put ice on the burn. If the blisters are broken, wash gently with soap and boiled water that has been cooled. Rinse with water for 30 minutes. Then put a piece of sterile gauze on the burn loosely so it does not put pressure on the wound. Never smear on grease or butter. Covering the burn with honey or the inside meat of an aloe plant helps prevent and control infection and speed healing.

It is very important to keep the burn as clean as possible. Protect it from dirt, dust, and flies.

If signs of infection appear—pus, bad smell, fever, or swollen lymph nodes—apply compresses of warm salt water (1 teaspoon salt to 1 liter water) 3 times a day. Boil both the water and cloth before use. With great care, remove the dead skin and flesh. You can spread on a little antibiotic ointment such as Neosporin. In severe cases, consider taking an antibiotic such as dicloxacillin, clindamycin, or ciprofloxacin.

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3. Deep Burns (3rd degree)

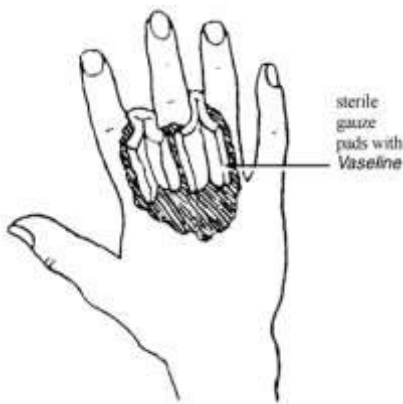
These are burns that destroy the skin and expose raw or charred flesh, or do not show until a few hours after a chemical gets on the skin. They are always serious, as are any burns that cover large areas of the body. Take the person to a health center at once. In the meantime wrap the burned part with a very clean cloth or towel moistened with clean water. If it is impossible to get medical help, treat the burn as described above.

If you do not have Vaseline, leave the burn in the open air, covering it only with a loose cotton cloth or sheet to protect it from dust and flies. Keep the cloth very clean and change it each time it gets dirty with liquid or blood from the burn. Give an antibiotic.

Special Precautions for Very Serious Burns

Any person who has been badly burned can easily go into shock because of combined pain, fear, and the loss of body fluids from the oozing burn. Bathing open wounds in slightly salty water also helps calm pain. Put 1 teaspoon of salt for each liter of cool, boiled water.

Give the burned person plenty of liquid. If the burned area is large (more than twice the size of his hand), To a liter of water add: half a teaspoon of salt and half a teaspoon of bicarbonate of soda, Also put in 2 or 3 tablespoons of sugar or honey and some orange or lemon juice if possible. The burned person should drink this as often as possible, especially until he urinates frequently.



Burns around the Joints

When someone is badly burned between the fingers, in the armpit, or at other joints, gauze pads with Vaseline on them should be put between the burned surfaces to prevent them from growing together as they heal. Also, fingers, arms, and legs should be straightened completely several times a day while healing. This is painful but helps prevent stiff scars that limit movement. While the burned hand is healing, the fingers should be kept in a slightly bent position.

D. First Aid for Sprains and Strains

Sprains: It is form of ligament injury

Strains: It is over stretched of muscle and tendons

Remember the acronym RICE in emergency procedure for sprains and strains:

R - Rest
I - Ice Compression.
C - Elevation
E -

1. Advise the victim to sit or lie down, support the injured part in a comfortable position. If injury has just happened, cool the area by applying an ice pack or cold compress. This reduces swelling, bruising, and pain.
2. Apply gentle, even pressure (compression) to the injured part by surrounding the area with a thick layer of soft padding, such as cotton wool or plastic foam, and securing this layer of padding with a bandage.
3. Arise (elevate) and support the injured part to reduce the flow of blood to the injury. This action will help to minimise bruising in the area.
4. If the pain is severe or the victim is unable to use the injured part, take or send the victim to hospital.

E. Fracture

There are two categories of fractures:

1. Closed (Simple) fracture

- The skin is intact and no wound exists anywhere near the fracture site.

2. Open (Compound) fracture

- The underlying skin over the fracture has been damaged or broken.
- The wound may result from bone protruding through the skin.
- The bone may not always be visible in the wound.

3. The Third Type is a complicated fracture where in addition to the fracture an important internal organ may also be injured. A complicated fracture may be simple or compound.

Method of first aid to implement for a person with a suspected fracture

- Examine the injured area for swelling and/or deformities, lacerations and puncture wounds.
- Gently feel along the length of the bone for tenderness, swelling and deformities.
- Check the injured extremity for pulse. A pulse less in arm or leg indicates an emergency requiring immediate surgical care. If this is the case, seek emergency medical help immediately.

1. Stop any bleeding

Apply pressure to the wound with a sterile bandage, a clean cloth or a clean piece of clothing.

2. Immobilize the injured area.

Don't try to realign the bone, but if you've been trained in how to splint and professional help isn't readily available, apply a splint to the area.

3. Apply ice packs to limit swelling and help relieve pain until emergency personnel arrive. Don't apply ice directly to the skin — wrap the ice in a towel, piece of cloth or some other material.



4. Treat for shock. If the person feels faint or is breathing is short, rapid breaths, lay the person down with the head slightly lower than the trunk and, if possible, elevate the legs.

First Aid for Closed Fracture

– Advise the victim to keep still. support the in juried part with your hands, or ask a helper to do this , until it is immobilised.

For firmer support, bandage the injured part to an unaffected part of the body.

– Treat for shock if necessary by raising the legs , don't raise the injured limb if this causes the victim more pain

– Check the circulation beyond a bandage every 10 minutes . if the circulation is impaired, loosen the bandage

First Aid for open Fracture

– Put on gloves, if available. Loosely cover the wound with a large, clean, or sterile dressing. Apply pressure to control bleeding but do not press on a protruding bone

– Carefully place clean padding over and around the dressing

– Secure the dressing and padding with a bandage

– Immobilise the injured part as for a closed fracture, and arrange to transport the victim to hospital.

– Treat for shock if necessary Monitor and record vital signs-level of response, pulse, and breathing.

Check the circulation beyond the bandage every 10 minutes.

First Aid for Joint Dislocation

– Advise the victim to keep still. Support the injured part, in a position of maximum comfort for the victim, before you immobilise it.

– Immobilise the injured part with padding, bandage ,and slings. For firm support , bandage the injured part to an unaffected part of the body.

– Arrange for transport, check vital signs and check circulation.

Percussion

DO NOT...

- Massage the affected area
- Straighten the broken bone
- Move without support to broken bone
- Move joints above / below the fracture
- Give oral liquids / food

F. Shock

Shock – is a condition in which there is insufficient blood in the circulation to fill the blood vessels. As a result, the tissue do not receive enough oxygen to maintain life and there is extreme body weakness or physical collapse.

Main Causes of Shock

1. Hemorrhage, also loss of water due to nausea and vomiting and loose bowel movement
2. Severe injuries, such as burns and fractures
3. Asphyxiation – lack of oxygen

Other factors that may cause or aggravate shock

- 1) Severe pain
- 2) Wound infection
- 3) Disease
- 4) Exposure
- 5) Fatigue
- 6) Hunger and thirst
- 7) Fear and worry
- 8) Unnecessary or rough handling

Signs and Symptoms of Shock

- 1) The casualty is pale
- 2) Skin is cold and clammy
- 3) Pulse is rapid and weak
- 4) Respiration is rapid, irregular and shallow
- 5) If the casualty is conscious, he may be listless and drowsy and complain of thirst and dryness in the mouth.
- 6) The eyes may have a vacant, dull expression, and the pupils may be enlarged

What to do to prevent or treat shock:

At the first sign of shock, or if there is risk of shock

- Loosen any belts or tight clothing the person may be wearing.
- Have the person lie down with his feet a little higher than his head, like this: However, if he has a severe head injury, put him in a 'half sitting' position.
- Stop any bleeding. Use gloves or a plastic bag to keep the blood off your hands.
- If the person feels cold, cover him with a blanket.



- If he is conscious and able to drink, give him sips of water or other drinks. If he looks dehydrated, give a lot of liquid, and Rehydration Drink. If he does not respond quickly, give intravenous fluids if you know how.
- Treat his wounds, if he has any.
- If he is in pain, give him aspirin or another pain medicine—but not one with a sedative such as codeine.
- Keep calm, reassure the person, and seek medical help

G. Loss of Consciousness

If a person is unconscious and you do not know why, immediately check each of the following:

1. **Is he breathing well?**

If not, tilt his head way back and pull the jaw and tongue forward. If something is stuck in his throat, pull it out. If he is not breathing, use mouth-to-mouth breathing at once.

2. **Is he losing a lot of blood?**

If so, control the bleeding.

3. **Is he in shock (moist, pale skin; weak, rapid pulse)?**

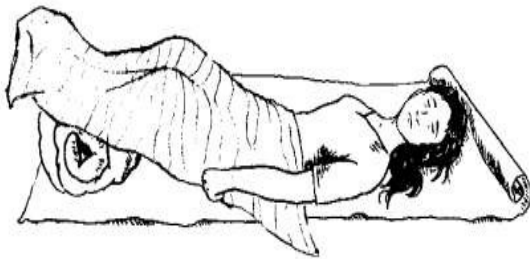
If so, lay him with his head lower than his feet and loosen his clothing.

4. **Could it be heat stroke (no sweat, high fever, hot, red skin)?**

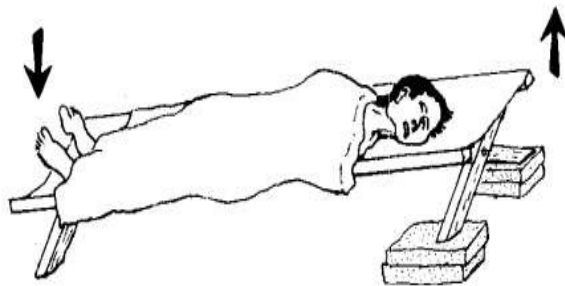
If so, shade him from the sun, keep his head higher than his feet, and soak him with cold water (ice water if possible) and fan him.

How to position an unconscious person:

very pale skin:
(shock, fainting, etc.)



red or normal skin:
(heat stroke, stroke, heart problems, head injury)



H. *Emergencies Caused by Heat*

1. Heat Cramps

Signs and Symptoms: The casualty experiences muscle cramps of the arms, legs, and/or stomach. The casualty may also have excessive sweating.

First Aid: Put a teaspoon of salt in a liter of boiled water and drink it. Repeat once every hour until the cramps are gone. Have the person sit or lie down in a cool place and gently massage the painful areas.

2. Heat Exhaustion

Signs and Symptoms: A person who works and sweats a lot in hot weather may become very pale, weak, and nauseous, and perhaps feel faint. The skin is cool and moist. The pulse is rapid and weak. The temperature of the body may rise but is usually normal

First Aid: Have the person lie down in a cool place, raise his feet, and rub his legs. Give salt water to drink: 1/2 teaspoon of salt in a liter of water. (Give nothing by mouth while the person is unconscious.)

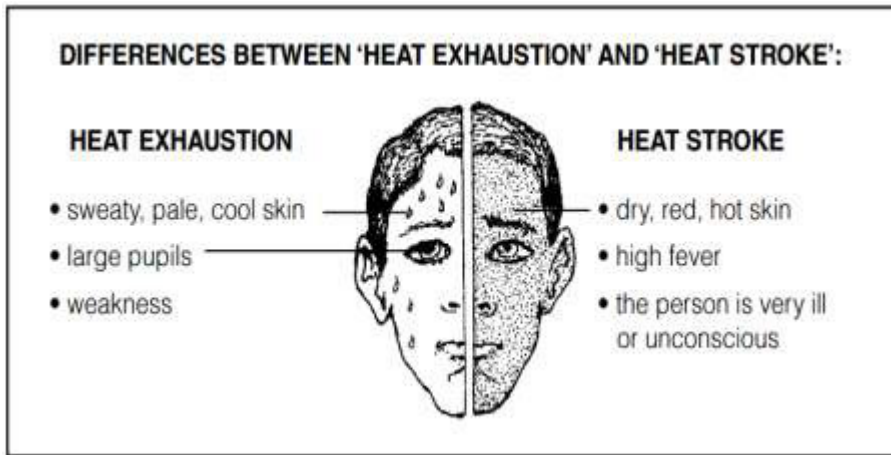
3. Heat Stroke

Heat stroke is not common, but is very dangerous. It occurs especially in older people, very fat people, and alcoholics during hot weather.

Signs and Symptoms: The skin is red, very hot, and dry. Not even the armpits are moist. The person has a very high fever, sometimes more than 42°C, and a rapid heartbeat. Often he is unconscious.

First Aid: The body temperature must be lowered immediately. Put the person in the shade and make him lie down. Soak him with cold water (ice water if possible) and fan him. Continue until the fever drops, record body temperature falls up to 38°C stop pouring water. Give plenty of cold water with a pinch of common salt in each glass of water to drink. Seek medical help.





I. *Choking*

Choking is obstruction in the airway

Signs and Symptoms

- Person is not able to breath or talk due to obstruction, choking sign given, distressed, and panic.

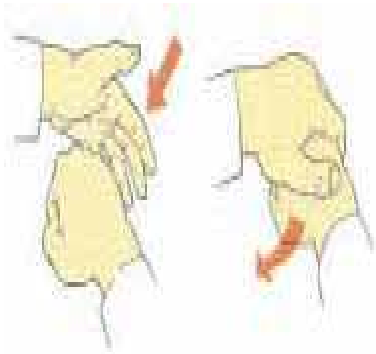


-  Hands wrapped around the neck is universal sign for choking.

First aid

Conscious patient:

- Approach from behind and wrap arms around the victim's waist.
- Place one fist just above the victim's navel with the thumb side against the abdomen.
- Second hand over the fist.
- Press into the victim's abdomen with one upward thrust
- Repeat thrust if necessary.



- Try to pop the obstruction out with swift thrusts in and up.
- Continue until the obstruction is relieved or victim collapses.
- Have someone call for help. Note: Always stay calm.

Unconscious Victim:

- Ask someone to call 9-911 for help
- Lower victim to floor on back or left side and perform Heimlich Maneuver
- Open airway with tongue-jaw lift
 - Look inside mouth – if you cannot see anything, do not do a finger sweep
 - Try to give two full rescue breaths
 - If these do not go in, reposition the head and give another breath
- Perform abdominal thrusts
- Continue until successful or help arrives

J. *Electric shock*

Electrical injury is a term for all injuries caused by contact with electrical energy. Electrical contact can cause a wide variety of injuries involving most organ systems. Most electrical injuries are classified as one of the following:

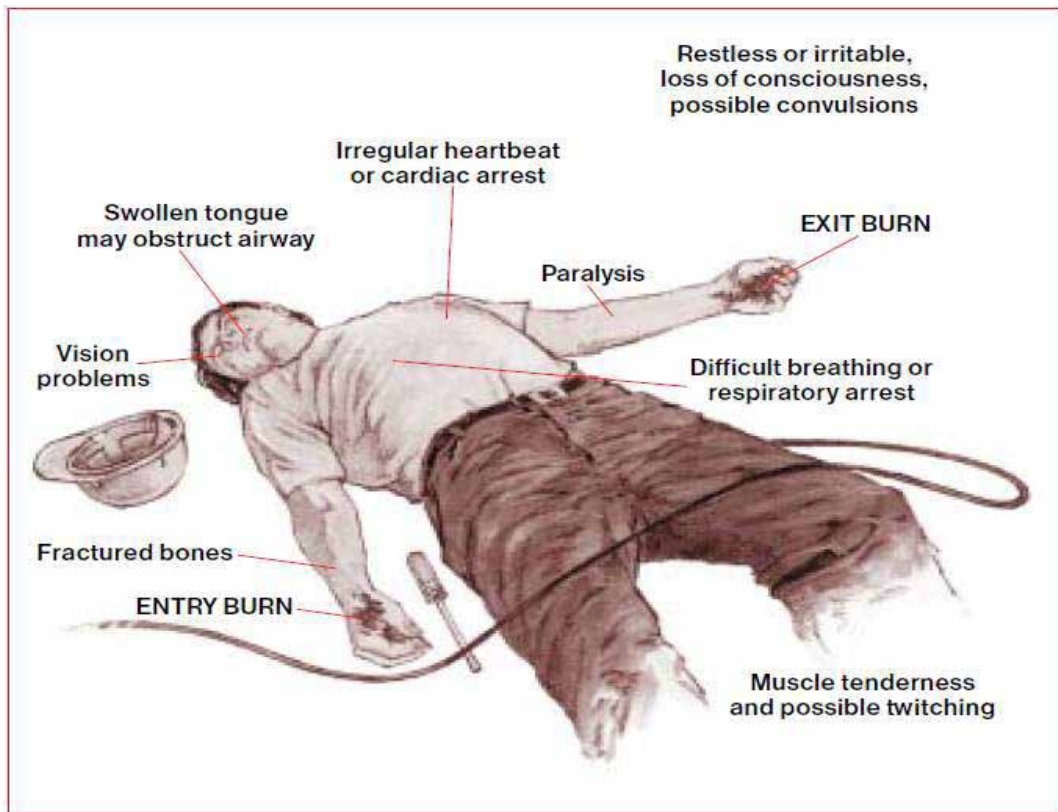
- Burns
- Electric shock injuries
- Eye injuries

Electric shock and electrical burns are serious injuries and should receive immediate medical attention. Contact the first aid attendant, if available, or get other medical help. Arrange for transport to hospital immediately.

Make sure you keep yourself and the injured worker out of further danger:

- With low voltage, carefully remove the source of contact from the injured worker without endangering yourself. Turn off the power or use insulated material to remove the source of contact (low-voltage only).
- With high voltage, stay back at least 10 metres (33 ft.) until the owner of the power system says it is safe to approach. Do not become a second victim. If the voltage is over 60 kV (60,000 V), you may need to keep as far away as 32 metres (105 ft.). See page 31 for more information on rescue work around power lines





A worker with an electrical injury may have any of a number of signs and symptoms.

First aid for electrical injuries includes the following:

1. Remove the worker from the heat and put out the fire on any clothing by smothering the flames with a blanket or dousing the worker with water. Make sure that fabric is no longer smoldering. Cooling more than 20% of the body at one time can cause hypothermia. Wet dressings and any clean source of water may be used for cooling. Never apply ice.
2. Initiate priority action following the ABC approach:
 - A. **Airway:** Establish and maintain an open airway.
 - B. **Breathing:** Check and maintain breathing. If the injured worker is not breathing, start assisted ventilation (using mouth-to-mouth or a pocket mask).
 - C. **Circulation:** Monitor the worker's circulation constantly. Initiate cardiopulmonary resuscitation (CPR) if necessary, and carry on until more advanced life support is obtained. Electrical workers should be familiar with CPR.
3. Keep the injured worker warm and at rest.
4. If the injured worker is conscious, offer reassurance.
5. If the injured worker vomits, turn the worker onto one side to keep the airway clear.
6. Transport the injured worker to medical aid. While waiting for transport or en route to medical aid, administer first aid for burns (see box below).

7. Do not leave injured workers unattended. Maintain a constant watch on their airway, breathing, and circulation while they are transported to medical aid.

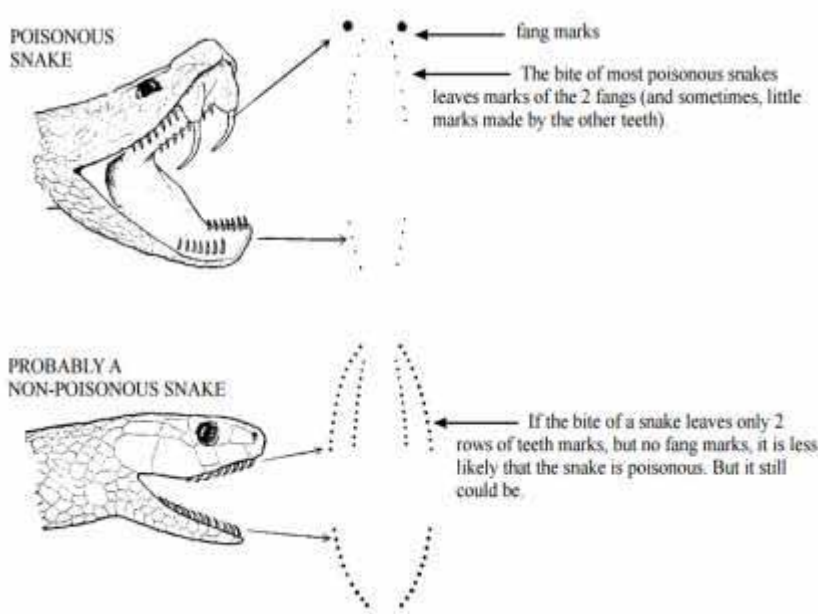
First aid for burns

First aid for burns can be administered while the injured worker is waiting for transport or being transported to medical aid:

- Remove rings, wrist watches, and footwear, if possible.
- Elevate burned extremities, if possible, to decrease fluid loss. Do not splint burned limbs unless there is an obvious fracture or dislocation. Avoid handling the affected body parts unnecessarily.
- Apply wet dressings on burns to less than 20% of the body surface. Any burns in excess of 20% can be covered with dry dressings or clean sheets. Do not apply tight, encircling dressings.
- Do not break blisters.
- Do not apply creams, ointments, or other medications to the burned area.
- Do not examine burned eyelids. Cover them with sterile dressings until they can receive

K. Snakebite

When someone has been bitten by a snake, try to find out if the snake was poisonous or harmless. Their bite marks are usually different:



Snake venom is one of the most complex substances known. It contains protein and non-protein compounds including metals, amino acids, peptides, lipids, biogenic amines, enzymes, and polypeptides. The symptoms arising from a venomous snakebite differ from one person to another because of snake and human variables. Snake-related variables include the size of the snake, species, state of health, condition of the



fangs, and the amount and relative toxicity of venom injected whereas the human ones include the age, size, and previous health of the patient, as well as location of the bite.

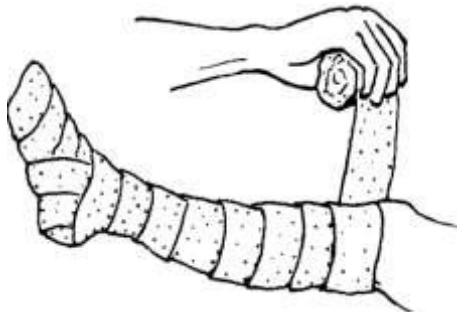
First-Aid Measures for Snakebites

1. Have the victim lie down Stay quiet; do not move the bitten part. The more it is moved, the faster the poison will spread through the body. If the bite is on the foot, the person should not walk at all.



2. Remove any rings, watches, or bracelets because swelling can spread rapidly.

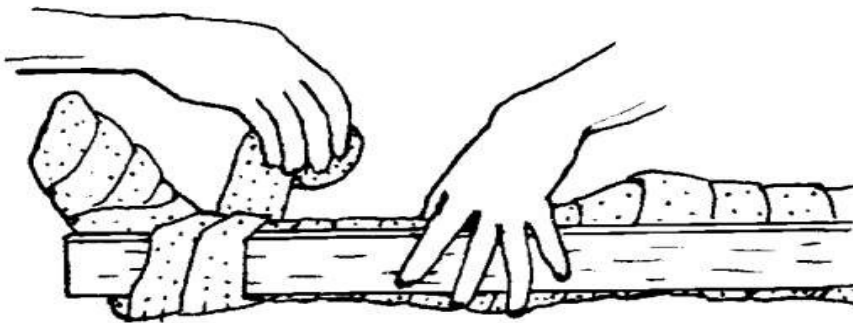
Remove any rings, watches, or bracelets because swelling can spread rapidly.



3. Wrap the bitten area with a wide elastic bandage or clean cloth to slow the spread of poison. Keeping the arm or leg very still, wrap it tightly, but not so tight it stops the pulse at the wrist or on top of the foot. If you cannot feel the pulse, loosen the bandage a little.

4. Wind the bandage over the hand or foot, and up the whole arm or leg. Make sure you can still feel the pulse.

5. Then, put on a splint to prevent the limb from moving



6. Carry the person, on a stretcher if possible, to the nearest health center. If you can, also take the snake, because different snakes may require different antivenoms. If an antivenom is needed, leave the bandage on until the injection is ready, and take all precautions for allergic shock. Also give tetanus antitoxin. If there is no need for antivenom, remove the bandage.

- Try to identify or secure the snake IF this can be done safely and quickly. Do not handle the snake. Even a dead snake can be dangerous since any venom remaining on the fangs could be injected if the skin is scratched.

Do not:

- cut the skin or the flesh around the bite
- tie anything tight around the bite or the person's body
- put ice on or around the bite
- shock the person with electricity
- try to suck the blood or the venom out of the bite
- Never drink alcohol after a snakebite. It makes things worse!

L. Insects bites

Types of Insects

Commonly encountered stinging or biting insects include spiders, scorpions, urticating caterpillars, bees, wasps, centipedes, conenose beetles, bugs, ants. Upon being reassigned, especially to overseas areas, take the time to become acquainted with the types of insects to avoid

Signs and Symptoms

1. Less serious

Commonly seen signs/symptoms are pain, irritation, swelling, heat, redness, and itching. Hives or wheals (raised areas of the skin that itch) may occur. These are the least severe of the allergic reactions that commonly occur from insect bites/stings. They are usually dangerous only if they affect the air passages (mouth, throat, nose, and so forth), which could interfere with breathing. The bites/stings of bees, wasps, ants, mosquitoes, fleas, and ticks are usually not serious and normally produce mild and localized symptoms.

2. Serious

Emergency allergic or hypersensitive reactions sometimes result from the stings of bees, wasps, and ants. Many people are allergic to the venom of these particular insects. Bites or stings from these insects may produce more serious reactions, to include generalized itching and hives, weakness, anxiety, headache, breathing difficulties, nausea, vomiting, and diarrhea. Very serious allergic reactions (called anaphylactic shock) can lead to complete collapse, shock, and even death.

First Aid

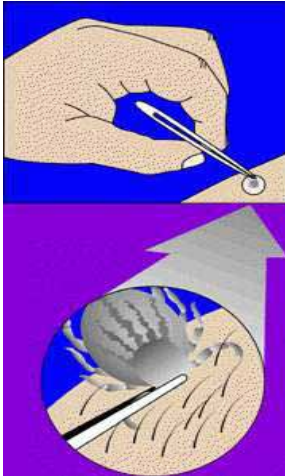
There are certain principles that apply regardless of what caused the bite/sting. Some of these are—

- If there is a stinger present (for example, from a bee), remove the stinger by scraping the skin's surface with a fingernail or knife. DO NOT squeeze the sac attached to the stinger because it may inject more venom.
- Wash the area of the bite/sting with soap and water (alcohol or an antiseptic may also be used) to help reduce the chances of an infection and remove traces of venom
- Remove jewelry from bitten extremities because swelling may occur.



- In most cases of insect bites the reaction will be mild and localized; use ice or cold compresses (if available) on the site of the bite/ sting. This will help reduce swelling, ease the pain, and slow the absorption of venom
- Reassure the casualty and keep the victim calm
- In serious reactions, attempt to capture the insect for positive identification; however, be careful not to become a casualty yourself

M. *Tick Bites*



- Tick can remain embedded for days without the victim's realizing it.
- Most tick bites are harmless, although ticks can carry serious diseases.
- Symptoms usually begin 3 to 12 days after a tick bites.
- To remove a tick, grab the tick as close to the skin as possible with a very fine forceps/tweezers and pull it gradually, but firmly, out of the skin. The bite site should be thoroughly disinfected with alcohol or another skin antiseptic solution. Avoid squeezing the tick during removal, because squeezing may inject infectious material into the skin.
 - Use of gasoline, petroleum, and other organic solvents to suffocate ticks, as well as burning the tick with a match, should be avoided.
 - If a rash develops, the patient should see a physician in case antibiotics or vaccinations are indicated.

Implementation considerations

First aid providers should align with their local medical centres to find out which of these insect related diseases are common in the region as well as preventive measures such as:

- Use repellent
- Use bednets
- Wear long sleeves and long pants, especially at dawn, when these insects are active.

N. *Bee Sting*

- If the stinger is present, remove by scraping with a knife or fingernail. Do not squeeze venom sac on stinger; more venom may be injected.
- Remove all jewelry from affected part, if applicable.
- Wash the area
- Apply ice or freeze pack, if available.

– If allergic signs or symptoms appear, be prepared to perform basic life support measures. Seek immediate medical assistance.

O. *Scorpion Sting*

Some scorpions are far more poisonous than others. To adults, scorpion stings are rarely dangerous. Take aspirin or acetaminophen and if possible put ice on the sting to help calm the pain. For the numbness and pain that sometimes last weeks or months, hot compresses may be helpful

P. *Foreign Body in the Ear*

- Solid – Do not try to remove, scratch or probe it.
- Insects – Put a few drops of water in the ear and turn the head so that affected ear points upwards.
- Keep the head in that position for 5 minutes, then turn the head downwards so that the water flows out.
- Arrange immediate medical aid.



Chapter IV

First Aid Kit

The first aid kit should be clearly marked and easily accessible for the trained first aider. The contents of the First Aid Kit are mainly meant for providing first aid in case of bleeding, bone fractures and burns. Mark it clearly and store it in a dry place. Check your kit regularly and replace items as soon as possible after your kit has been used. If for any reason you carry ointments, creams, aspirin, paracetamol etc in your kit, always make sure that they are in date. A small flashlight or pen torch that can fit in your kit can be worth having as an add on. All first aid kits shall be kept fully stocked, and stored so as to ensure contents are protected against contamination.

A basic First Aid kit should include the following:

SL. No.	Items	Kit contents
		Quantity
1	Instructions for providing first aid – including Cardio-Pulmonary Resuscitation (CPR) flow chart	1
2	Note book and pen	1
3	Resuscitation face mask or face shield	1
4	Disposable nitrile examination gloves	5 pairs
5	Gauze pieces 7.5 x 7.5 cm, sterile (3 per pack)	5 packs
6	Saline (15 ml)	8
7	Wound cleaning wipe (single 1% Cetrimide BP)	10
8	Adhesive dressing strips – plastic or fabric (packet of 50)	1
9	Splinter probes (single use, disposable)	10
10	Tweezers/forceps	1
11	Antiseptic liquid/spray (50 ml)	1
12	Non-adherent wound dressing/pad 5 x 5 cm (small)	6
13	Non-adherent wound dressing/pad 7.5 x 10 cm (medium)	3
14	Non-adherent wound dressing/pad 10 x 10 cm (large)	1
15	Conforming cotton bandage, 5 cm width	3
16	Conforming cotton bandage, 7.5 cm width	3
17	Crepe bandage 10 cm (for serious bleeding and pressure application)	1
18	Scissors	1
19	Non-stretch, hypoallergenic adhesive tape – 2.5 cm wide	1
20	roll Safety pins (packet of 6)	1
21	Dressing – Combine Pad 9 x 20 cm	1
22	Plastic bags - clip seal	1

23	Triangular bandage (calico or cotton minimum width 90 cm)	2
24	Emergency rescue blanket (for shock or hypothermia)	1
25	Eye pad (single use)	4
26	hydro gel (3.5 gm sachets)	5
27	Instant ice pack (e.g. for treatment of soft tissue injuries and some stings).	1
28	Band Aids	10
29	Ice Pack	1
30	Thermometer	1
31	Current Pocket size First Aid Book	1

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