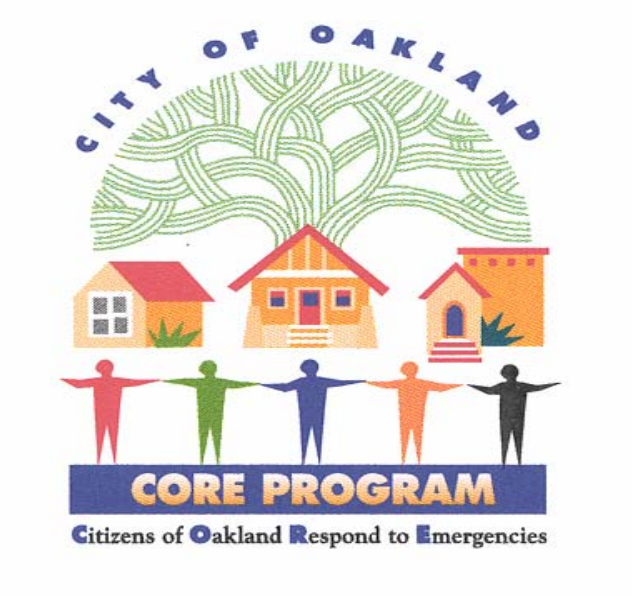
CORE III

Emergency Response

Hands-On Training Manual

Class B



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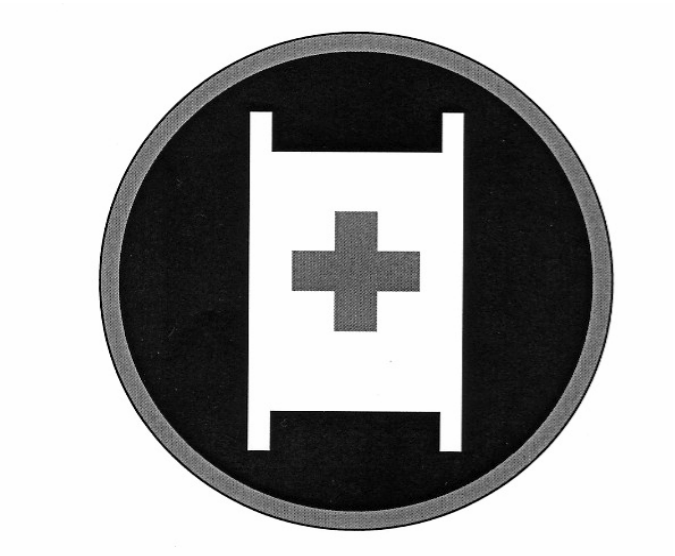


DISASTER FIRST AID

Overview

In a disaster, there will be more victims than rescuers, and professional medical help may not be available when we call 9-1-1.

Disaster First Aid is used when professional firefighters and EMTs' are overwhelmed and unable to respond immediately. CORE members may be called on to administer first aid to help save lives.

In this section you will learn how to care for victims in your neighborhood and potentially save lives. You will learn to:

- Identify and treat life-threatening conditions
- Conduct S.T.A.R.T. (Simple Triage and Rapid Treatment)
- Conduct head-to-toe assessments
- Care for common injuries
- Address public health considerations

At the end of this section, you will have the knowledge to:

- Apply techniques to open the airway, control bleeding and treat for shock
- Triage victims and tag them as minor, delayed, immediate or deceased
- Conduct a head-to-toe assessment
- Set up a first aid treatment area
- Treat burns, wounds, fractures
- Maintain proper hygiene and sanitation

GOALS OF A DISASTER FIRST AID OPERATION

The primary goal of a Disaster First Aid Operation is to **do the greatest good for the greatest number of people**.

Research after earthquakes in Chile, Peru, and Italy indicates that providing simple first aid care can save more than 40 percent of disaster victims in the second and third phases of death from trauma.

The three phases of death from trauma are:

- **Phase 1**: Death within minutes as a result of overwhelming and irreversible damage to vital organs
- **Phase 2**: Death within several hours as a result of excessive bleeding
- **Phase 3**: Death in several days or weeks as a result of infection or multiple-system failure (i.e., complications from the injury)

A disaster environment is a demanding one, and the members of the **First Aid Team** will be called upon to think quickly and act efficiently.

Primary Responsibilities

The primary responsibilities of the **First Aid Team** are to:

- Set up a First Aid Treatment Area
- Triage the injured and provide first aid
- Coordinate the transport of the injured to the First Aid Treatment Area or to available hospitals or clinics
- Set up a morgue

Assumptions

In a disaster response you will not have the time or resources to focus all of your efforts on only one victim.

There are at least four **assumptions** that the **First Aid Team** can make about a disaster:

- The number of victims will exceed the local (neighborhood or first responder) capacity for treatment
- Survivors will assist others
- People will assist according to their training and knowledge
- Few of the survivors who are available to help will be trained in First Aid

Disaster First Aid entails dealing with the physical and emotional health of victims, most of whom will be loved ones or neighbors.

The CORE program strongly recommends that everyone take a comprehensive First Aid class along with a CPR class. These classes will help you both in the time of a disaster and in your daily life. Many first aid classes are available through the American Red Cross and the American Heart Association.

Size-Up

The **First Aid Team** must **"size up"** each situation before taking action to treat a victim. You should consider the following:

- Potential **hazards** to yourself, your team members and the victim
- Available **resources**, both human and material
- Additional **assistance** that might be needed to ensure success or safety

In each situation, ask the following questions:

- Is it safe to enter?
- How many people are hurt?
- If it is safe, should we treat victims where they are and leave someone to care for them?
- If it is not safe, how and where are we going to transport the victims?

Personal Safety Guidelines

In a disaster first aid operation, you are likely to be exposed to serious health and safety hazards. Observe the following guidelines to protect yourself, your team and the victims:

- Wear latex or vinyl gloves, goggles, a face mask, helmet and boots. Work gloves can be worn over latex gloves and removed when you need to treat a victim.
- Always work with a partner, especially when you are in the field.
- Make sure that your First Aid Treatment Area is clear of hazards such as damaged utilities, cracked chimneys or windows, or hazardous materials.
- Take breaks to rest, drink fluids and eat.
- Pay attention to your own physical and emotional needs.
- Pay attention to the needs of the other team members.
- Know your limits.

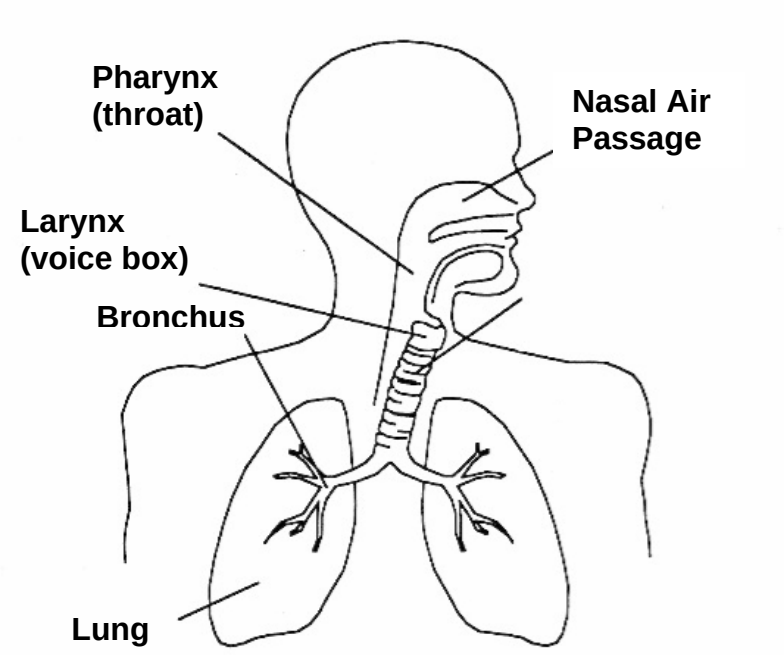
TREATING LIFE THREATENING CONDITIONS

Airway obstruction, bleeding, and shock can be “killers,” especially in emergencies. CORE members are not trained medical practitioners, but can address these potential killers by:

- Opening the airway
- Controlling excessive bleeding
- Treating for shock

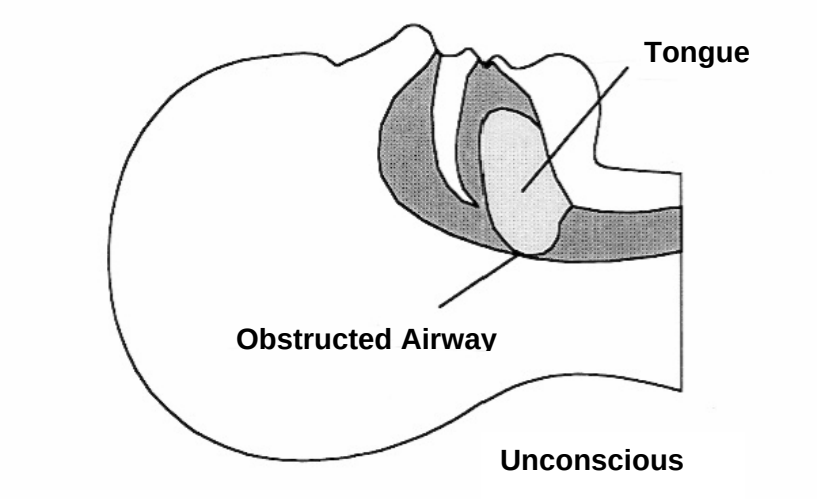
Breathing

Opening the Airway



Components of the Respiratory System, showing the Pharynx, Nasal Air Passage, Larynx, Trachea, and Bronchus.

The respiratory system includes airways, lungs, and muscles.



Airway Obstructed by the Tongue

The most common airway obstruction is the tongue. In an unconscious or semiconscious victim, especially one positioned on his or her back, the tongue (a muscle) may relax and block the airway. A victim with a suspected airway obstruction must be checked **immediately** for breathing and, if necessary, the airway must be opened.

When an airway obstruction is suspected, CORE members should clear the airway using the Head-Tilt/Chin-Lift method.

Head-Tilt / Chin-Lift Method for Opening an Airway

Step	Action
1	At an arm's distance, shake the victim by touching the shoulder and shout, "Can you hear me?"
2	If the victim does not or cannot respond, place the palm of one hand on the forehead.
3	Place two fingers of the other hand under the chin and tilt the jaw upward while tilting the head back slightly.
4	Place your ear over the victim's mouth, looking toward the victim's feet, and place a hand on the victim's abdomen.
5	***Look*** for chest rise
6	***Listen*** for air exchange
7	***Feel*** for abdominal movement

If the victim does not start breathing on the first try using the Head-Tilt/Chin-Lift method, check to make sure that there is no object blocking the airway and try adjusting the position of the head one more time. If breathing cannot be restored on the second try, CORE members must move on to the next victim. Remember, the goal is to do the greatest good for the greatest number of people.

If breathing has been restored, it is important to keep the airway open. Ask a volunteer or "walking wounded" to hold the victim's head in place. You can also place soft objects under the victim's shoulders to elevate the shoulders slightly to keep the airway open.

Exercise: Opening the Airway

This exercise allows you to practice using the Head-Tilt/Chin-Lift method on each other.

1. Work in pairs—one person will be the victim and the other person the rescuer.
2. Victims should lie on the floor on their backs and close their eyes.
3. The rescuer should use the Head-Tilt/Chin-Lift method on the victim to open the airway.
4. After the rescuer has made two or three attempts at using the Head-Tilt/Chin-Lift method, the victim and the rescuer should change roles.

Bleeding

Blood carries oxygen and nutrients to the cells of the brain and body and transports carbon dioxide and waste products away. The average adult has about five liters of blood. The loss of just one liter of blood can be life threatening. Infants and children have considerably less blood, so even a small loss can be life threatening.

Uncontrolled bleeding initially causes weakness and the victim will go into shock within a short period of time.

Blood flows from the heart through the arteries, to the capillaries and then to the cells. It returns to the heart through a separate system from the capillaries to the veins and back to the heart.

Capillaries are closest to the skin, bleed very slowly and **ooze**.

Veins bleed more rapidly than capillaries when cut but the **blood flows slowly**.

Arteries are deep in the body and when cut, they **spurt** bright red blood.

The severity of bleeding depends on:

- Type of vessel and how fast the blood is flowing
- How much blood is lost
- Patient factors: age, size and general health condition

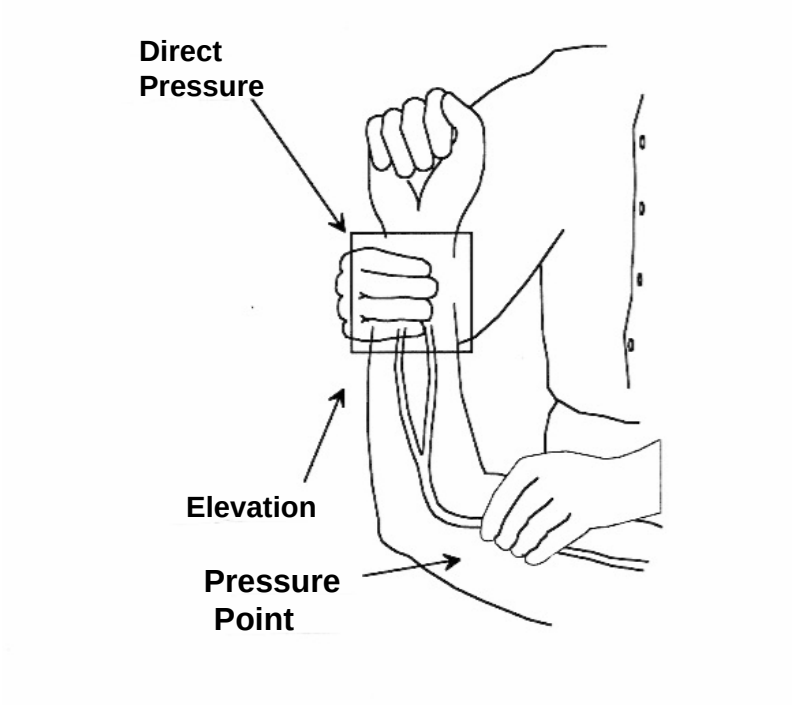
There are three main methods for controlling bleeding:

- Direct pressure
- Elevation
- Pressure points

Procedures For Controlling Bleeding

Method	Procedures
Direct Pressure	• To apply direct pressure, place a clean dressing over the wound and press firmly. • Maintain pressure on the dressing over the wound by wrapping the wound **firmly** with a pressure bandage.
Elevation	• Elevate the wound above the level of the heart.

Pressure Points	• Put pressure on the nearest pressure point to slow the flow of blood to the wound. Use the:
	  • Brachial point for bleeding in the arm
	  • Femoral point for bleeding in the leg



Controlling Bleeding by using
Direct Pressure on wound, Elevation, and Pressure Points.

Direct pressure combined with elevation will address most bleeding.

Direct pressure and elevation can take 5 to 7 minutes to stop the bleeding completely. The use of a dressing and pressure bandage allows the rescuer to move on to the next victim.

A pressure bandage should be tied with a bow, so that it can be loosened—rather than cut—to examine the wound, and then retied. This procedure helps to conserve supplies and saves time.

If the dressings become saturated **do not** remove them. Add more dressings and continue pressure. Removing the blood-soaked dressings may disturb blood clots and expose the wound to further contamination.

Elevation

Bleeding can also be controlled by elevating the wound above the level of the heart.

Elevation is used in combination with direct pressure.

Pressure Points

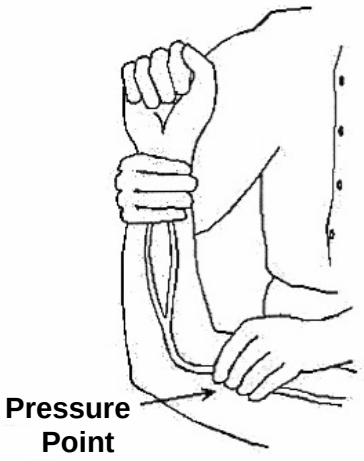
There are also **pressure points** that can be used to stem the flow of bleeding.

The pressure points most often used to stem the flow of bleeding are:

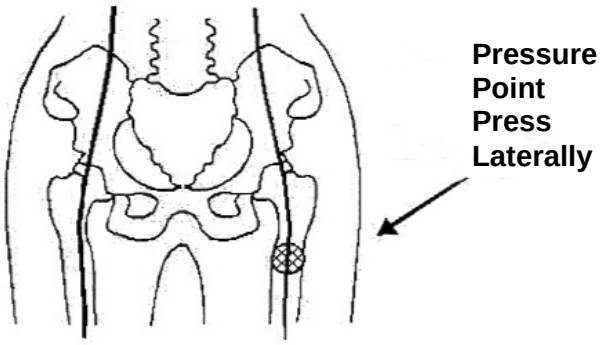
- The brachial point in the arm
- The femoral point in the leg

Get victims to help themselves whenever possible.

Pressure Points For Controlling Bleeding



Brachial Pressure Point
just above the elbow



Femoral Pressure Point
in the upper thigh

Exercise: Controlling Bleeding

This exercise allows you to practice the techniques for controlling bleeding.

1. Work in pairs again – one person will be the victim and the other the rescuer.

2. Victims should lie on the floor on their backs and close their eyes.

3. The rescuer should use direct pressure to control bleeding from a simulated wound on the right forearm, just below the elbow. The rescuer should:

   - Apply a pressure bandage
   - Elevate the arm
   - Repeat these two steps
   - Repeat the two steps for speed

4. After the rescuer has made at least three attempts at using each technique, the victim and the rescuer should change roles.

Bleeding must be controlled as quickly as possible so as not to endanger the victim's life from blood loss.

You should always wear your rubber gloves, goggles, and a mask as a protection against blood-borne pathogens, such as hepatitis and HIV.

Recognizing and Treating Shock

Shock is a physical condition that occurs when the body does not have an adequate supply of oxygenated blood. It can be caused by excessive fluid loss from bleeding, dehydration or burns, or any trauma to the body.

Shock can be a life-threatening condition and needs immediate treatment.
The body will initially compensate for blood loss and mask the symptoms of shock. Therefore, it is important to continually evaluate patients for shock and monitor their condition.

The main signs of **shock** are:

- Skin is pale, cool and clammy
- Breathing is rapid and shallow or labored
- Heart beats faster but pulse is weak
- Failure to follow simple commands, such as, “Squeeze my hand”
- Capillary refill time of greater than 2 seconds. Capillary refill is how long it takes for the color to return after a quick squeeze of a fingernail, lip or the palm of the hand. This is called the “blanch test.”

Procedures For Controlling Shock

Step	Action
1	• Lay the victim on his or her back. • Elevate the feet 6-10 inches above the level of the heart. • Maintain an open airway.
2	• Control obvious bleeding.
3	• Maintain body temperature (e.g., cover the ground and the victim with a blanket if necessary).
4	• Avoid rough or excessive handling unless the rescuer and victim are in immediate danger.

Although victims who are suffering from shock may be thirsty, they should **not** eat or drink anything, because they may also be nauseated.

Exercise: Treating Shock

This exercise allows you to practice the steps for treating shock.

1. Work in pairs, one person is the victim and the other is the rescuer.

2. The victims should lie on the floor on their backs with their eyes closed.

3. The rescuers should treat the victims based on the scenario given by the Instructor.

4. The victims and the rescuers should then switch roles.

TRIAGE

Triage is a French word meaning **"to sort."**

During triage, victims are evaluated, sorted according to the urgency of the treatment needed, and set up for immediate or delayed treatment.

Triage is an effective strategy when:

- There are many more victims than rescuers
- There are limited resources
- Time is critical

Triage occurs as quickly as possible after a victim is located or rescued.

During triage, victims' conditions are evaluated, and the victims are prioritized and labeled (tagged) into four categories:

- **Minor (M):** Walking wounded.
- **Delayed (D)**: Injuries do not jeopardize the victim's life. The victim may require professional care, but treatment can be delayed.
- **Immediate (I)**: The victim has life-threatening (airway, bleeding, or shock) injuries that demand immediate attention; rapid, life-saving treatment is urgent, including transport to a medical facility as soon as possible.
- **Deceased (DEAD)**: No respiration after two attempts to open the airway. Because CPR is one-on-one care and is labor-intensive, CPR is not performed when there are more victims than rescuers.

The official tags are colored as follows: Green = Minor, Yellow = Delayed, Red = Immediate, and Black = Deceased. (See Appendix for sample of Triage Tag)

Remember, the goal of triage is to do the greatest good for the greatest number of victims. From triage, victims are taken to the **First Aid Treatment Area** and divided into groups according to their condition.

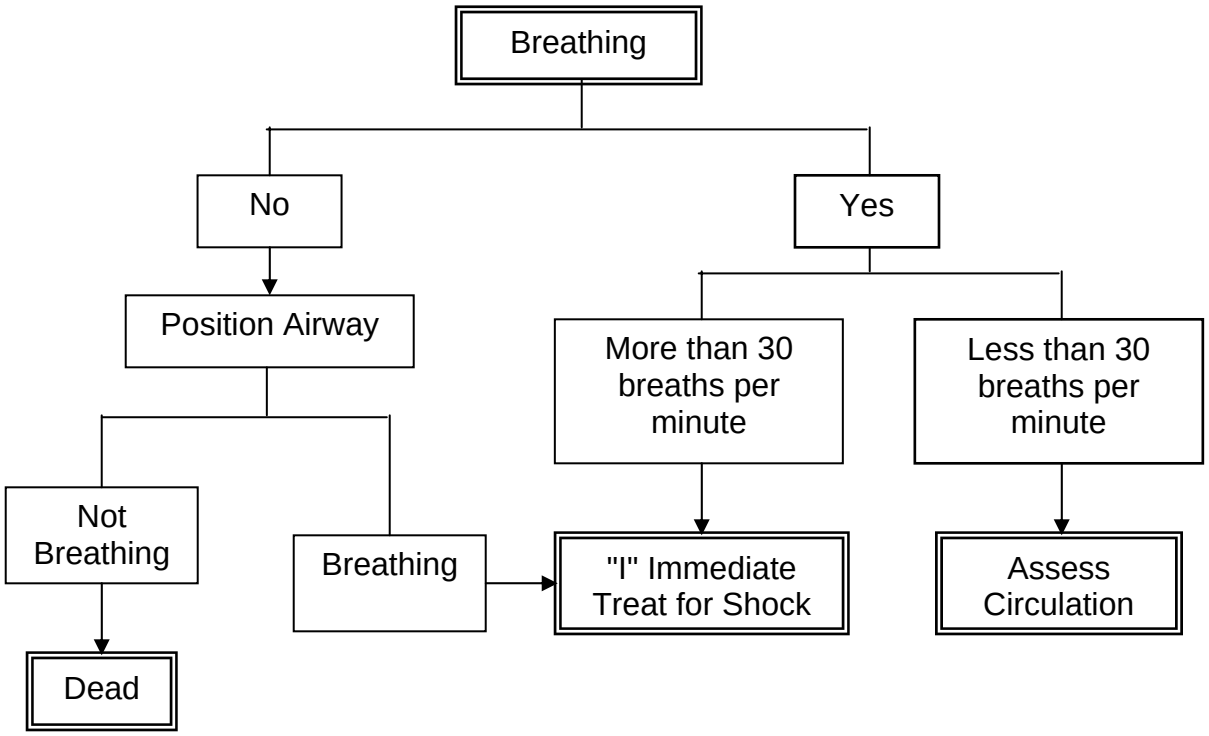
S.T.A.R.T. SIMPLE TRIAGE AND RAPID TREATMENT

Victim Assessment

Step 1 - Check Airway and Breathing

Look, Listen and Feel. If the victim is not breathing, open the airway. If breathing starts, Red-tag as "I" Immediate. If still not breathing, Black-tag as Dead.

Is breathing rate within normal limits? If more than 30 breaths per minute, tag as "I" Immediate.



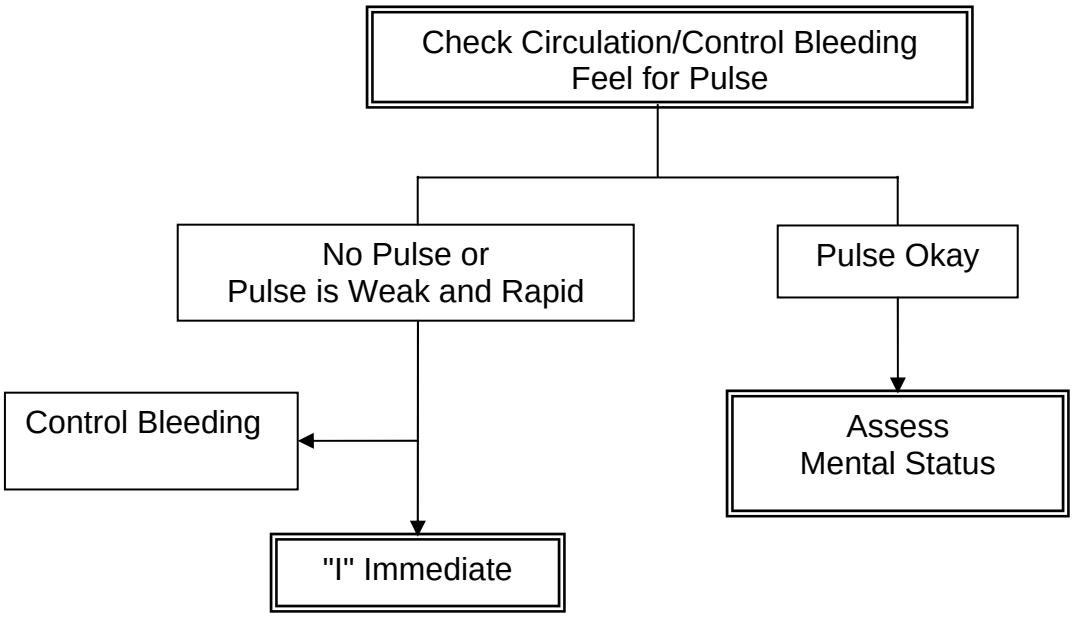
Check airway/breathing. At an arm's distance, shake the victim and shout. If the victim does not respond:

- Position the head to open the airway.
- Look, listen, and feel.
- Check breathing rate. Abnormally rapid respiration (above 30 per minute) indicates shock. Treat for shock and tag "I" Immediate.
- If below 30 per minute, then move to Step 2.
- If the victim is not breathing after 2 attempts to open airway, then tag "DEAD."

Step 2 - Check Bleeding and Circulation

Look for signs of external visible bleeding. Control with pressure.

Circulation: Feel for the wrist pulse. If a pulse cannot be felt or is weak and rapid, Red-tag as “I” Immediate.

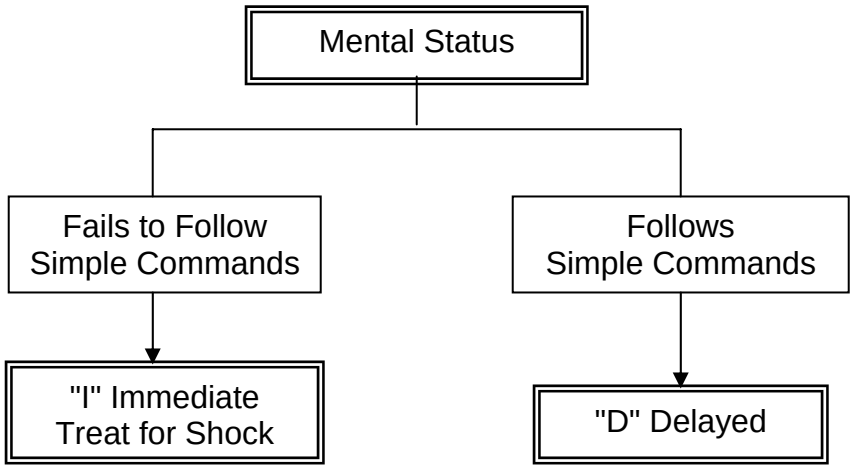


- Check circulation and bleeding.
- Take immediate action to control severe bleeding.
- An alternative to the wrist pulse is the blanch test (for capillary refill).
    - Capillary Refill is the amount of time it takes for the color to return after a quick squeeze of a fingernail, the lip, or the palm of the hand.
    - Treat for shock if normal color takes longer than 2 seconds to return, and tag “I” Immediate.

If the pulse is weak and rapid and there is no external bleeding, consider the possibility of internal bleeding and tag "I" Immediate. Seek medical attention.

Step 3 - Check Mental Status

Can the victim follow simple commands like “squeeze my hand?” If not Red-tag as “I” Immediate and treat for shock.



Inability to respond indicates that immediate treatment for shock is necessary. Treat for shock and tag “I” Immediate.

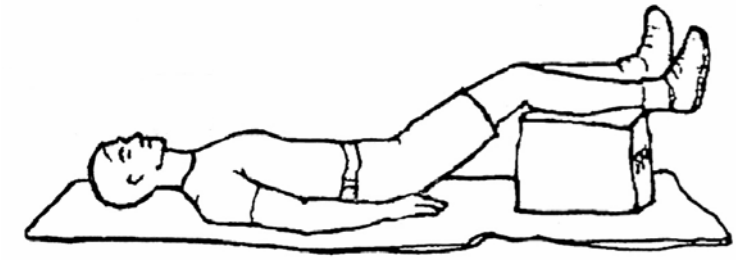
In summary:

- If the victim passes all tests, his or her status is “**D**” delayed.
- If the victim fails any one test, his or her status is “**I**” Immediate. All victims tagged “I” get airway control, bleeding control, and treatment for shock.
- Transport "I" Immediate victims to a medical facility as soon as possible.
- Remember that **everyone gets a tag.**

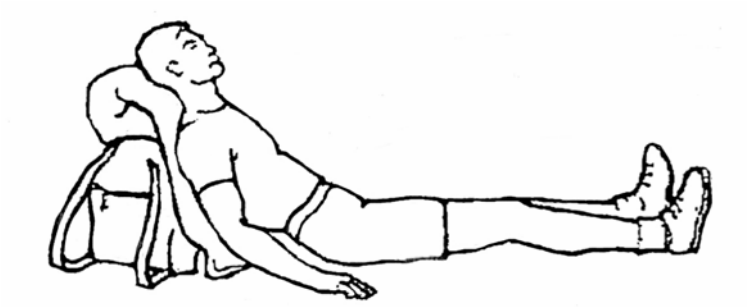
POSITIONS FOR THE INJURED

One of the important Rapid Triage Treatments is **Positioning**. Use whatever you have available for propping and stabilizing the position of the victim, such as boxes, an overturned chair, backpack, or sleeping bag.

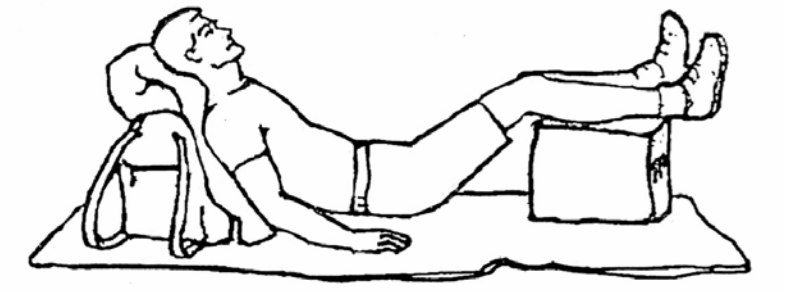
For **fainting** or **signs of shock**, raise the legs. This sends **more** blood to the brain and vital organs. If you suspect shock, also cover the victim to help retain body heat.



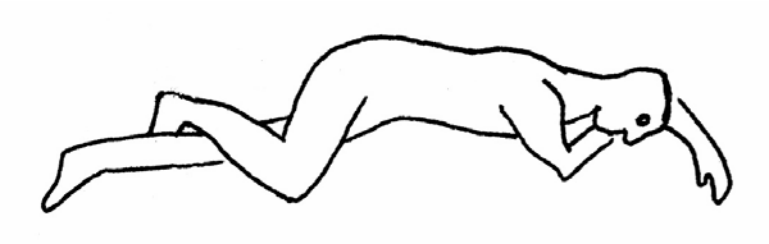
For **head injury**, **shortness of breath** or **difficulty breathing** raise the upper body and head. This sends **less** blood to the brain, which could be important if there is a possibility of internal bleeding in the head. Breathing is often easier in a sitting or reclining position, or even leaning forward. Be sure to prop the victim so that he or she bends at the hip, not just at the chest or neck. Help the victim find the position that helps the breathing the most.



If the victim has a combination of problems such as shortness of breath combined with signs of shock, or head injury with signs of shock, raise both the upper body and the legs.



If the victim is semi-conscious or unconscious, use the “Recovery/Coma” position (on the side and propped in place). This position allows fluids to drain naturally, keeps the breathing passage open, and helps protect the lungs if vomiting occurs.



Time is critical in a disaster. You will **not** be able to spend very much time with any single victim.

Triage pitfalls include:

- No team plan, organization, or goal
- Indecisive leadership
- Too much focus on one injury
- Treatment (rather than triage) performed

The rescuer’s safety is paramount during triage. Wear proper protective equipment so you do not endanger your own health.

Documentation

As you assess victims, write down your findings and the time the victim was assessed. This information will be critical when the victim is reassessed and/or trained medical personnel treat the victim.

Document triage results for:

- Effective use of resources
- Information on the victims’ locations
- A quick record of the number of casualties by degree of severity

Victims must be reassessed regularly for changes in condition.

Exercise: Conducting Triage

This exercise is intended to allow you to practice conducting triage in a high-pressure situation.

1. Work in 6-person groups. In each group, three participants will act as victims, and three will act as search and rescue team members (two rescuers and one runner).

2. The “victims” should select a card from the Instructor and tape it to their shirts.

3. The victims should arrange themselves within the designated “disaster” area.

4. The three “rescuers” will have 5 minutes to:

    - Conduct triage on each of the victims and determine how each should be tagged and treated.

    - Document the number of victims in each category of triage (Immediate, Delayed, Dead).

Triage Summary

S.T.A.R.T. Simple Triage And Rapid Treatment accomplishes two very important things:

- It identifies the victims with the most serious injuries so that you and any other rescuers or medical personnel can tell at a glance who needs care first.
- It gives you (the rescuer) the opportunity to perform the quick actions that are proven to save lives:
    - Assisting Airway/Breathing
    - Controlling Bleeding
    - Preventing or recognizing and treating Shock

After you have done Rapid Triage on all of the injured and gotten a quick look at their injuries, you can send for help with that information.

Next your **First Aid Team**, with help from the “walking wounded,” will return to the red-tagged “Immediate” victims to do a more thorough **head-to-toe assessment** and give further treatments as needed to those in the “delayed” category.

HEAD-TO-TOE ASSESSMENTS

The first step that you will take when working with a victim will be to conduct a Simple Triage And Rapid Treatment. After all victims in an area have been triaged, CORE First Aid Team members will begin a thorough **head-to-toe assessment** of each victim's condition.

During triage, you looked for:

- Airway obstruction
- Excessive bleeding
- Signs of shock

A head-to-toe assessment goes further to determine the nature of the victim's injury.

Look for the following:

- Bruising
- Swelling
- Severe pain
- Disfigurement

A head-to-toe assessment can be done in place in a lightly damaged building. However, if the building is moderately damaged the victim should be moved to a safer treatment area for the assessment.

Triage and head-to-toe assessments in a disaster setting are not day-to-day operations. If the rescuer or victim is in immediate danger, safety is more important than any potential spinal injury. Rescuer and victim safety is the priority.

The objectives of a head-to-toe assessment are to:

- Determine, as clearly as possible, the extent of injuries
- Determine what type of treatment is needed
- Document injuries

Wear safety equipment when conducting head-to-toe assessments.

Head-to-toe assessments should be:

- Conducted on all victims, even those who seem all right. Everyone gets a tag.
- Verbal (if the patient is able to speak).
- Hands-on.

Whenever possible:

- Ask the person about any injuries, pain, bleeding, or other symptoms.
- If the victim is conscious, CORE **First Aid Team** members should **always ask permission to conduct the assessment.** The victim has the right to refuse treatment.
- Ask how the victim was hurt to gain insight on probable injuries suffered.

Then:

- Pay careful attention.
- Look, listen, and feel for anything unusual.

Conducting a Head-to-Toe Assessment

Conduct head-to-toe assessments systematically, checking from the head to the feet, looking for continuity of bones and soft tissue injuries in the following order:

Head and Scalp
- Check for lumps, bumps, bleeding, depressions

Ears and Nose
- Check for blood or fluid, deformity

Mouth
- Check for injuries, jaw movement, obstructions
- Possible airway obstructions

Face
- Check for cuts, bruises, deformities

Neck

- Check for Medic Alert Tags – necklace or bracelet
- Airway problems

Collarbones, shoulders and arms

- Feel for deformity or pain
- Have victim squeeze your fingertips
- Feel for wrist pulse
- Check nail bed for capillary refill
- Gently feel arms for possible broken bones

Chest

- Compress ribs gently, check for pain
- Recheck breathing – Look, Listen, Feel

Abdomen

- Check for swelling
- Gently feel for pain, tenderness, or rigidity

Pelvic Region

- Press hips together gently to check for pain or abnormal movement

Back

- Without moving the victim, slip hand under spine and feel for deformity, pain, tenderness or bleeding

Legs

- Feel legs, knees, ankles, feet; check for wounds abnormal alignment, dislocation, discoloration, swelling

Feet

- Check skin temperature
- Tell victim to wiggle his feet and toes

Important Reminders

Perform an entire assessment before beginning any treatment. Treat all unconscious victims as if they have a spinal injury.

Completing the assessment in the same way every time will make the procedure quicker and more accurate.

Check your own hands for patient bleeding as you complete the head-to-toe assessment.

Victims should be reassessed regularly for changes in their condition.

Head, Neck, and Spinal Injuries

When conducting head-to-toe assessments, rescuers may come across victims who have or may have suffered head, neck, or spinal injuries.

A **closed head injury** is a concussion-type injury, as opposed to a laceration. Lacerations can be an indication that the victim has suffered a closed-head injury as well.

The main objective when **First Aid Team** members encounter suspected injuries to the head or spine is to **do no harm**. You should minimize movement of the head and spine, while treating any other life-threatening conditions.

The signs of a closed head, neck, or spinal injury most often include:

- Change in consciousness
- Inability to move one or more body parts
- Severe pain or pressure in the head, neck, or back
- Tingling or numbness in extremities
- Difficulty breathing or seeing
- Heavy bleeding, bruising, or deformity of the head or spine
- Blood or fluid in the nose or ears
- Bruising behind the ear
- "Raccoon" eyes (bruising around eyes)
- "Uneven" pupils
- Seizures
- Nausea or vomiting

If the victim is exhibiting any of these signs, or has been found under collapsed building material or heavy debris, he or she should be treated as having a head, neck, or spinal injury.

Keep the spine in a straight line when doing the head-to-toe assessment.

In an extreme emergency, ideal equipment is rarely available. **First Aid Team** members may need to be creative and use ordinary items that are available.

- Look for materials that can be used as a backboard: a door, desktop, building materials — anything that might be available.

- Look for items that can be used to stabilize the head on the board—towels, draperies, or sandbags. Tuck these items snugly on either side of the head to immobilize it.

Victims should only be moved:

- For the safety of the rescuer and victim.

- When a first aid treatment area is established to care for multiple victims.

Exercise: Conducting Head-to-Toe Assessments

This exercise allows you to practice conducting head-to-toe assessments.

Follow the steps below to complete this exercise:

1. Work in two-person teams of victim and rescuer.

2. Victims should lie on the floor on their backs and close their eyes.

3. The rescuer should conduct a head-to-toe assessment on the victim following the procedure demonstrated earlier.

4. After the rescuer has made at least two observed head-to-toe assessments, the victim and rescuer should change roles.

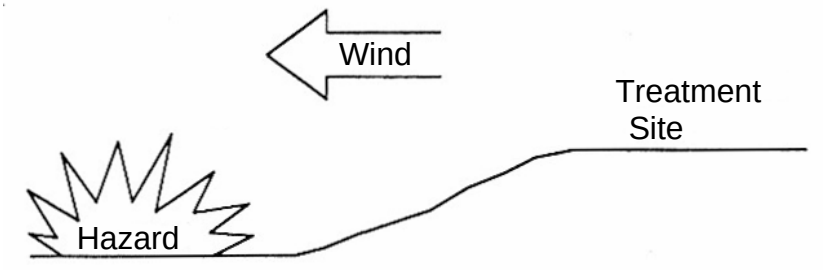
ESTABLISHING A FIRST AID TREATMENT AREA

Because time is critical during an emergency, CORE **First Aid Team** members will need to select a site and set up a treatment area as soon as injured victims are confirmed.

The treatment area is the location where first aid or medical treatment will be given to victims, depending upon the training and skills of the available rescuers.

The site selected should be:

- In a safe area, free of hazards and debris
- Close to, but upwind and uphill from the hazard zone(s)
- Accessible by transportation vehicles (ambulances, trucks, helicopters, etc.)
- Expandable



Treatment Area Site Selection, uphill and upwind from hazard

Treatment Area Layout

The treatment area must be protected and clearly delineated using a ground cover or tarp, and signs should identify the subdivisions of the area:

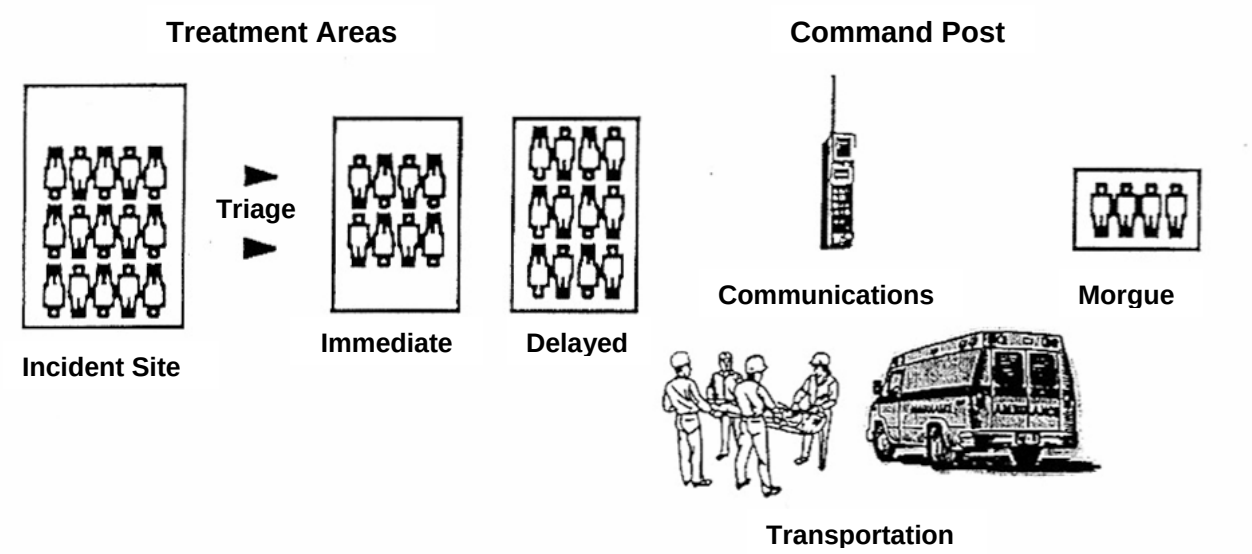
- "I" for Immediate care
- "D" for Delayed care
- "DEAD" for the morgue

The "I" and "D" areas should be relatively close to each other to allow:

- Verbal communication between workers in the two areas.
- Shared access to first aid supplies (which should be stored in a central location).
- Easy transfer of patients whose status has changed.

A clearly marked treatment area will help in transporting victims to the correct location.

Patients in the treatment area should be positioned in a head-to-toe configuration, with two to three feet between victims. This allows effective use of space and gives the First Aid Team member easy access to the victims.



Treatment Area Layout, showing the organization for the incident site, triage, communications, transportation, and morgue

Treatment Area Organization

The CORE First Aid team leader will assign team members to be in charge of each of the treatment areas. These people will:

- Ensure orderly victim placement
- Direct assistants to conduct head-to-toe assessments

Thoroughly document information about victims in the treatment area, including:

- Available identifying information
- Description (age, sex, body build, height, weight)
- Clothing
- Injuries
- Treatment
- Victim location if moved

Treatment Area Planning

Before disaster strikes:

- Plan the roles of personnel assigned to the treatment areas.
- Gather the equipment needed to set up the treatment sites:
    - Ground covers/tarps.
    - Signs to identify treatment sites for immediate and delayed victims, and the morgue.

Take part in practice exercises whenever you have an opportunity so that you can develop a good operational plan and practice rapid treatment area setup.

Treating Burns

The objectives of first aid treatment for burns are to:

- Cool the burned area
- Cover with a sterile cloth to reduce the risk of infection (by keeping fluids in and germs out)

Burns may be caused by heat, chemicals, electrical current, or radiation. The severity of a burn depends on the:

- Temperature of the burning agent
- Period of time that the victim was exposed
- Area of the body that was affected
- Size of the area burned
- Depth of the burn

Burn Classifications

The skin has three layers:

- The **epidermis**, or outer layer of skin, which contains nerve endings and is penetrated by hairs
- The **dermis**, or middle layer of skin, which contains blood vessels, oil glands, hair follicles, and sweat glands
- The **subcutaneous layer**, or innermost layer, which contains blood vessels and overlies the muscle and skin cells

Depending on the severity, burns may affect all three layers of skin.

Burns are classified as first, second, or third degree depending on their severity.

Burn Classifications

Classification	Skin Layers Affected	Signs
1st Degree	• Epidermis (superficial)	• Reddened, dry skin • Pain • Swelling (possible)
2nd Degree	• Epidermis • Partial destruction of dermis	• Reddened, blistered skin • Wet appearance • Pain • Swelling (possible)
3rd Degree (Full Thickness Burns)	• Complete destruction of epidermis and dermis • Possible subcutaneous damage (destroys all layers of skin and some or all underlying structures)	• Whitened, leathery, or charred tissue (brown or black) • Painful or relatively painless

Guidelines for treating burns

- Remove the victim from the burning source. Put out any flames.
- Cut away and remove burned clothing. Remove jewelry before swelling starts.
- Cool minor burns by immersing in cool water for **not more** than 1 minute, or covering with clean compresses that have been wrung out in cool water. Cooling sources include water from the bathroom or kitchen; garden hose; and soaked towels, sheets, or other cloths.
- Treat all victims of third-degree burns for shock and watch for hypothermia. Do not apply cold compresses or immerse in cold water as this may cause shock.
- If the burn covers more that 10 percent of the body, cover loosely with **dry** sterile dressing to keep air out and prevent infection. Cover smaller burns with **moist** sterile dressings to keep air out and prevent infection.
- Elevate burned extremities higher than the heart.

Do not use ice. Ice causes vessel constriction.

Do not apply antiseptics, butter, oil, creams, ointments, or other remedies.

Do not remove shreds of tissue, break blisters, or remove adhered particles of clothing. Cut burned-in clothing around the burn.

Infants, young children, older persons, and persons with severe burns, are more susceptible to hypothermia. Rescuers should use caution when applying cool dressings on such persons. A rule of thumb is to not cool more than 15 percent of the body surface area (the size of one arm) at once, to prevent hypothermia.

High Priority Burn Situations – Tag "I" Immediate

- **Smoke Inhalation**: If a person has been in a closed area with smoke and they develop coughing or hoarseness, swelling in the throat and air passages could cause breathing problems. Tag 'I" Immediate.

- All **burns** to the **face, hands, feet,** or **genitals.**

- **Burns to children and infants**: They are at greater risk than adults for shock, hypothermia and dehydration from fluid loss.

Electrical Burns – Tag "I" immediate

- If a person has an electrical burn, **do not touch** the person until you are absolutely certain that the source of the electricity is shut off and completely removed from the person.

- Electrical burns are often more serious than they first appear. When an electrical current has passed through a part of the body, there are both entrance and exit wounds, with deep tissue damage in between the two.

- A person with an electrical burn is a high priority and should be tagged "I" Immediate.

Wound Care

The objectives of first aid treatment for wounds are to:

- Control bleeding
- Prevent secondary infection

Cleaning Wounds

Wounds should be cleaned by irrigating with water, flushing with a mild solution of soap and water, then irrigating with water again.

Do **not** scrub the wound. Use a bulb syringe to irrigate wounds or in a disaster, you can use a turkey baster, a clean spray bottle, or squeeze out a wet cloth to flush the wound.

Bandaging Wounds

When the wound is thoroughly cleaned, you will need to apply a dressing and bandage to help keep it clean and control bleeding.

The difference between a dressing and a bandage:

- A dressing is applied directly to the wound
- A bandage holds the dressing in place

If a wound is still bleeding, the bandage should place enough pressure on the wound to help control bleeding without interfering with circulation.

Caring for Wounds – Infection Control

In the absence of active bleeding, dressings must be removed and the wound must be flushed and checked for signs of infection at least every 4 to 6 hours.

Signs of possible infection include:

- Redness, discoloration
- Swelling around the wound site
- Discharge from the wound, pus
- Red streaks from the wound site
- Fever

If there is active bleeding (i.e. if the dressing is soaked with blood), add another layer of dressing **over** the existing dressing and maintain pressure and elevation to control bleeding. Sanitary napkins make very absorbent dressings for heavy bleeding.

If a victim starts to show signs of infection, increase the treatment priority level. For example, if a person was initially tagged “D” Delayed, he or she may now need to be considered as “I” Immediate.

Amputations

The main treatments for an amputation (the traumatic severing of a limb or other body part) are to:

- **Control bleeding**
- **Treat for shock**
- **Seek Medical Attention**

If you can locate severed body parts:

- Save all body parts, wrap in clean material and place them in a plastic bag
- Keep the severed body parts as cool as possible
- Keep the severed part with the victim

Impaled Objects

You may also encounter some victims who have foreign objects lodged in their bodies, usually as the result of flying debris during the disaster.

When a foreign object is impaled in a victim’s body:

- Immobilize the affected body part
- Do **not** attempt to move or remove the object unless it is obstructing the airway
- Try to control bleeding at the entrance wound without placing undue pressure on the foreign object
- Clean and dress the wound
- Wrap bulky dressings around the object to keep it from moving
- Seek Medical Attention

Treating Fractures, Dislocations, Sprains, and Strains

The objective when treating a suspected fracture, sprain, or strain is to **immobilize the injury** and the joints immediately above and below the injury site with a well-padded splint.

Because it is difficult to distinguish between fractures, sprains, or strains, if uncertain of the type of injury, **First Aid Team** members should treat the injury as a fracture.

If the injury is to the hand, place a soft object such as a roll of cloth or ace bandage in the palm to hold the fingers in a relaxed, natural curved position. Leave uninjured fingers (or toes) exposed so you can periodically check the circulation.

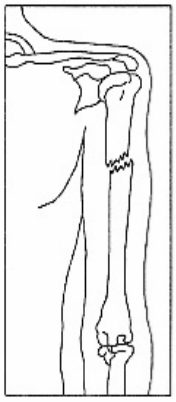
With this type of injury, there will be swelling. You should remove restrictive clothing, shoes and jewelry to prevent these items from acting as tourniquets.

Fractures

A fracture is a complete break, a chip, or a crack in a bone. There are different types of fractures:

- A **closed fracture** is a broken bone with no associated wound. First aid treatment for closed fractures may require only splinting.

- An **open fracture** is a broken bone with some kind of wound that allows contaminants to enter into or around the fracture site.



Closed Fracture

Closed Fracture in which the Fracture does not puncture the skin

Open Fracture

Open Fracture in which the bone protrudes through the skin

Open fractures are more dangerous because of the risk of severe bleeding and infection. Therefore, they are a higher priority and need to be checked more frequently.

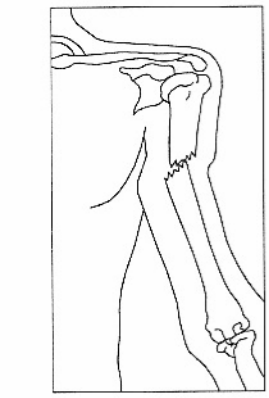
When treating an open fracture:

- Do **not** draw the exposed bone ends back into the tissue.
- Do **not** irrigate the wound.

You **should**:

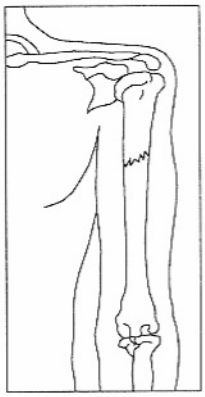
- **Cover the wound** with a sterile dressing.
- **Splint the fracture** without disturbing the wound.
- **Place a moist** 4" x 4" **dressing over the bone end** to keep it from drying out.

- **Displaced fractures** may be described by the degree of displacement of the bone fragments. If the limb is angled, there is a **displaced fracture**.
- **Non-displaced fractures** are difficult to identify, with the main signs being pain and swelling. Treat a suspected fracture as a fracture until professional treatment is available.



Displaced Fracture

Displaced Fracture in which the Fractured bone is no longer aligned



Non-displaced Fracture

Non-displaced fracture, in which The fractured bone remains aligned

Dislocations

A **dislocation** is an injury to the ligaments around a joint that is so severe that it permits a separation of the bone from its normal position in a joint.

The signs of a dislocation are similar to those of a fracture, and a suspected dislocation should be treated as a fracture.

You should **not** try to relocate a suspected dislocation. Immobilize the joint until professional medical help is available.

Sprains and Strains

A **sprain** involves a stretching or tearing of ligaments at a joint and is usually caused by stretching or extending the joint beyond its normal limits.

A sprain is considered a partial dislocation, although the bone either remains in place or is able to fall back into place after the injury.

The most common signs of a sprain are:

- Tenderness at the site of the injury
- Swelling and/or bruising
- Restricted use, or loss of use

The signs of a sprain are similar to those of a non-displaced fracture. Therefore, do **not** try to treat the injury other than by immobilization and elevation.

A **strain** involves a stretching and/or tearing of muscles or tendons. Strains most often involve the muscles in the neck, back, thigh, or calf.

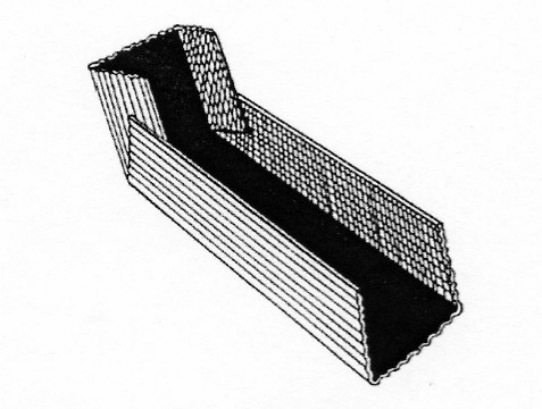
It can be very difficult to distinguish strains from sprains or fractures. When uncertain whether an injury is a strain, sprain, or fracture, treat the injury as if it is a fracture.

Splinting

Splinting is the most common procedure for immobilizing an injury. A variety of materials can be used, including:

- **Cardboard** is the material typically used for “makeshift” splints.
- **Soft materials**. Towels, blankets, or pillows, tied with bandaging materials or soft cloths.
- **Rigid materials**. A board, metal strip, folded magazine or newspaper, or other rigid item.
- Anatomical splints may also be created by securing a fractured bone to an adjacent, unfractured bone. Anatomical splints are usually reserved for fingers and toes but, in an emergency, legs may also be splinted together.

Cardboard Splint



Cardboard Splint in which the edges of the cardboard are turned up to form a “mold” in which the injured limb can rest

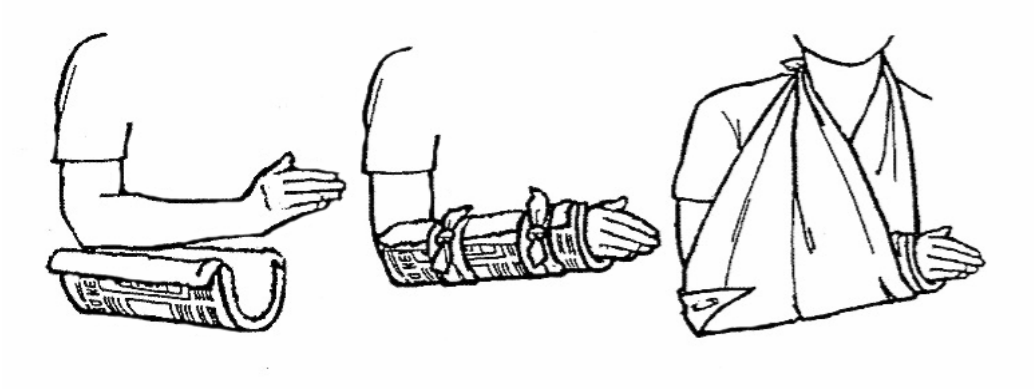
Soft Material Splints

To make a **towel splint,** roll up a towel and wrap it around the injured body part, then tie it in place.

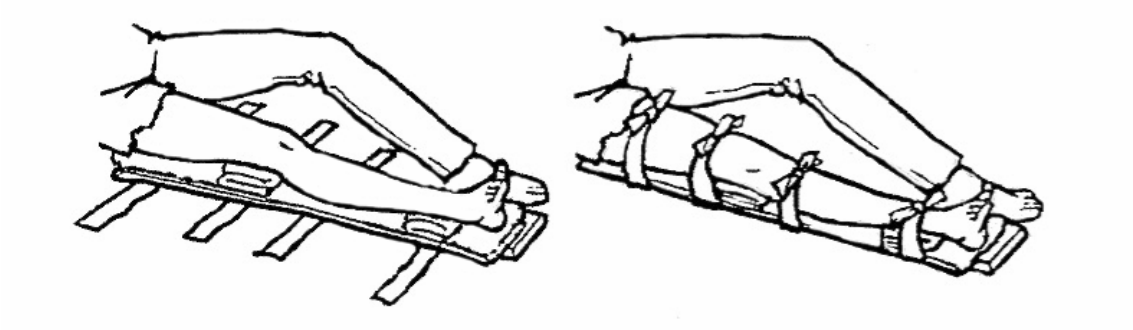
Make a **pillow splint** by wrapping a pillow around an injured limb and tying it in place.

Rigid Material Splints

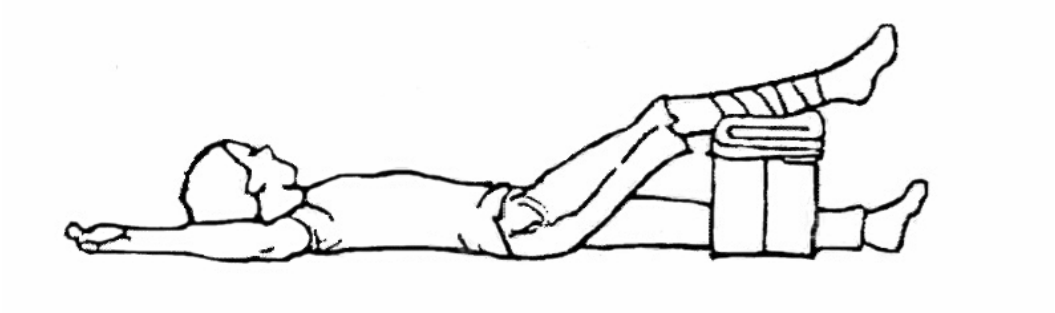
Magazine or newspaper splint for arm or wrist: Use a small towel or other soft material for padding the splint wherever it touches the skin. Finish by elevating the limb and securing it with a triangle sling or an improvised sling.



Board splint for lower leg or knee injury: Make sure splints are well padded, and remember to re-check the fingers or toes after splinting the injury.



If available, **apply ice** packs to the injured areas, 15 to 20 minutes at a time for the first 2 days. **Elevate** injured limbs if practical to do so.



Guidelines for Splinting

- Support the injured area above and below the site of the injury, including the joints.
- If possible, splint the injury in the position that you find it.
- Do **not** try to realign bones or joints.
- After splinting, check for proper circulation (warmth, feeling, and color).
- Immobilize above and below the injury.
- If available, apply ice packs to injured area to reduce swelling.

Exercise: Splinting

This exercise allows you to practice the procedures for splinting.

1. Working in two-person teams, one person will be the victim and one person will be the rescuer.
2. Victims should lie on the floor on their backs or sit in chairs.
3. The rescuer should apply a splint on the victim's upper arm using the procedure demonstrated earlier. Then the rescuer should apply a splint to the victim's lower leg.
4. The victim and the rescuer should change roles.

Crush Injury and Syndrome

Crush Injury occurs when a person has been squeezed or caught between hard surfaces or heavy objects for a period of time. There can be extensive damage to bones, nerves, tissues and blood vessels. There may also be damage to internal organs with internal bleeding. Clots may form which when released can travel to the heart and lungs.

It is not always easy to see crush injuries, so if a person is having severe pain and was trapped in the situation described above, assume that he or she has a crush injury.

Crush Syndrome

When a person has been crushed or trapped for a period of time, the pressure of the crushing object may be tamping-off circulation and bleeding. Normal circulation cleanses and removes toxins from the body, but they can build up to dangerous levels when circulation is impaired. When the object is removed, circulation is suddenly released.

Sudden release of pressure can allow:

- Serious bleeding internally, externally or both. Be prepared to treat for bleeding and shock.
- A sudden release of dangerous toxins that can damage vital organs.
- A clot to travel from the injured area to the heart or lungs. A person who appears fine immediately after release may collapse a short time later.

Treatment

- Release or free the person from entrapment, **if it is safe to do so**. Locate the position of all limbs before moving, then carefully and gently remove the crushing objects. Lift and prop all pieces securely.
- Treat for possible Shock. Keep the victim lying down and quiet.
- Treat for any apparent injuries: bleeding, fractures. Watch for swelling.
- Keep victims calm; have them sit or lie down quietly.
- Do not allow the victim to get up and participate in the recovery effort.
- Re-assess the victim regularly.

Nasal Injuries

Bleeding from the nose can be caused by:

- Blunt force to the nose
- Skull fracture
- Non-trauma-related conditions such as sinus infections, high blood pressure, and bleeding disorders

A large blood loss from a nosebleed can lead to shock. Actual blood loss may not be evident because the victim will swallow some amount of blood.

Victims who have swallowed large amounts of blood may become nauseated and vomit.

The methods for controlling nasal bleeding include:

- Pinching the nostrils together.
- Putting pressure on the upper lip just under the nose.

While treating for **nosebleeds**, you should:

- Have the victim sit with the head slightly forward so that blood trickling down the throat will not be breathed into the lungs. **Do not put the head back.**
- Ensure that the victim's airway remains open.

Keep the victim quiet. Anxiety will increase blood flow.

HYPOTHERMIA, HEAT EXHAUSTION, HEAT STROKE

Hypothermia

Hypothermia occurs when the body's core temperature drops below 95°F. Staying outdoors for long periods of time, wearing wet clothing, and sitting or sleeping on the ground can contribute to loss of core body heat. This can occur even when the weather is not cold.

Prevention

- **Protect the injured** from direct contact with the ground. Place a tarp, then a layer of cardboard, crumpled newspapers or leaves under a sleeping bag.
- **Dress in layers**. Add or remove layers as weather conditions change.
- **Keep dry**. Change your clothes if you get wet.
- **Cover up** to minimize the loss of body heat. Have a lightweight, water repellant jacket, hat and gloves. Wool hats and gloves will keep you warm even if they get wet. Cover the heads of the injured.
- Wear **sturdy hard-soled shoes or boots**, with wool socks if possible to protect your feet and keep them warm.

Symptoms of mild hypothermia

- Uncontrolled shivering
- Slow or slurred speech
- Drowsiness and exhaustion
- Loss of coordination, unsteady walk, confusion,

Symptoms of severe hypothermia

- No longer shivering
- Cold to touch
- Uncooperative or irrational behavior
- Confused, unresponsive or unconscious

Treatment

- Remove wet clothing, wrapping the victim in a blanket or sleeping bag and covering the head and neck.
- Handle the victim gently. Do not rub or massage.

- If the victim is fully conscious and can sit up and swallow without choking, offer sips of warm fluids. **Do not offer alcohol, coffee, tea or cola.**

- Warm the victim gradually. Use your body heat or place warmed towels on the head, neck, armpits and groin pulse points.

- Place an unconscious victim in the recovery position. Keep the victim warm and seek **medical attention.**

- Do not to allow the victim to walk around even when he or she appears to be fully recovered.

Heat Exhaustion and Heat Stroke

Normally, the body's internal thermostat produces perspiration that evaporates and cools the body. In heat and high humidity, however, evaporation is slowed and the body must work extra hard to maintain its normal temperature. The elderly, the very young, and those who are disabled are at risk from extreme heat.

After a disaster, people work hard under difficult conditions and may not realize that they are becoming dehydrated. CORE team members should watch for signs of heat problems.

Prevention

- **Drink water** every 15 to 20 minutes before, during and after physical activity. Avoid dehydration by replacing fluids often. Don't wait until you get thirsty.

- **Wear a hat.** Cover the back of your neck and shoulders. Avoid sunburn. Wear loose, light-colored clothing. Rest in the shade when you get tired or overheated.

- **Recognize the symptoms** of heat illness and take action promptly.

Symptoms of Heat Exhaustion

- Cool, moist, pale or flushed skin
- Heavy sweating
- Headache. Often with nausea
- Body temperature near normal
- Dizziness, impaired judgment
- Weakness and fatigue, muscle cramping
- Pulse rapid at first, may become weak or thready
- May or **may not** feel thirsty

Treatment of Heat Exhaustion

- Move the victim to shade or a cooler place.
- Remove or loosen clothing and apply cool, wet cloths, such as towels or sheets.
- If the victim is conscious, give cool water to sip slowly. Give half a glass of cool water every 15 minutes.
- Do not give salt or salty water. Dilute sports drinks 50-50 with water.
- Do not give full strength fruit juices or soft drinks. These delay the absorption of water into the system.
- Let the person rest in a comfortable position and watch carefully for changes in his or her condition (e.g. signs of heat stroke).

Symptoms of Heat Stroke

- Skin appears red, either hot and wet or hot and dry
- Rapid, weak pulse, rapid shallow breathing
- Body temperature very high – up to 105° F
- May be confused, disoriented or irrational
- May seem groggy or may become unconscious
- May be accompanied by seizures

Treatment of Heat Stroke

- **Heat Stroke** is a life-threatening condition. **Seek medical attention**. Call 911.
- Move the person to a cooler place.
- Quickly cool the body. Immerse victim in a cool bath or wrap wet sheets around the body and fan it.
- Apply ice packs to head and neck, armpits, and groin (pulse points), but stop aggressive cooling when the oral temperature drops below 102°F.
- Watch for signs of breathing problems.
- Keep the person lying down and continue to cool the body any way you can.
- If fully conscious and not vomiting, give sips of cold water. Do not give salt or salty water. If the victim refuses water, is vomiting, or there are changes in the level of consciousness, do not give anything to eat or drink.

PUBLIC HEALTH CONSIDERATIONS

When disaster victims are sheltered together for treatment, public health becomes a concern. Measures must be taken to avoid the spread of disease.

The primary public health measures include:

- Maintaining proper hygiene
- Purifying water (if necessary)
- Maintaining proper sanitation
- Setting up toilet facilities
- Setting up a morgue

CORE **First Aid Team** members **must use latex gloves, goggles, and a mask during all first aid operations**, and they must cover all open wounds as a way of preventing the spread of disease.

Maintaining Hygiene

Maintenance of proper hygiene is critical even under makeshift conditions.

Some steps that individual workers can take to maintain hygiene:

- **Wash hands frequently** using soap and water, towelettes or waterless hand cleaner. Hand washing should be thorough (at least 12 to 15 seconds) with an antibacterial scrub if possible.

- **Wear latex gloves at all times**. Change or disinfect gloves after examining and/or treating each patient. Under field conditions workers can use rubber gloves that are sterilized between treating victims using bleach and water (1 part bleach to 10 parts water).

- **Wear a mask and goggles**. If possible, wear a mask that is rated "N95."

- **Keep dressings sterile**. Do not remove the wrappings from dressings and bandages until use. After opening, use the entire dressing or bandage, if possible.

- **Avoid contact with body fluids**. Thoroughly wash areas that come in contact with body fluids with soap and water or diluted bleach as soon as possible.

Water Purification

Potable water is often in short supply or is not available in a disaster. Purify water for drinking, cooking, and medical use by heating it to a rolling boil for 1 minute, or by using water purification tablets or unscented liquid bleach.

Rescuers should not put anything on wounds other than purified water. The use of other solutions (e.g., hydrogen peroxide) on wounds must be the decision of trained medical personnel.

CORE **First Aid Team** members **must use latex gloves, goggles, and a mask during all first aid operations**, and they must cover all open wounds as a way of preventing the spread of disease.

Maintaining Sanitation

Normal sanitation services may be damaged or shut down. Improper disposal of medical or human waste can cause serious health problems and cause an epidemic of disease.

CORE First Aid Team members can maintain sanitary conditions by:

- Placing medical waste products (e.g., latex gloves, dressings, bloodied supplies, clean-up towels, etc.) in plastic bags, tying off the plastic bags and labeling them as “Medical Waste.”

- Keeping medical waste separate from other trash, and disposing of it as bio-hazardous waste.

Setting Up Toilet Facilities

Set up a toilet area that is some distance from your living area and the first aid treatment area. This site should be either level or downhill from your work area to prevent run-off or seepage into your work area.

Dig a latrine

- Dig a rectangular trench at least 2 feet long, 6 inches wide and a minimum of 2 feet deep, deeper if possible.

- Make sure it is far away from creeks or streams.

- After each use, sprinkle a small scoop of dry powdered household bleach or powdered agricultural lime (available in garden supply and hardware stores) directly over the waste and sprinkle a scoop of dirt on top. Don't forget the toilet paper.

- Be sure to wash your hands each time you use the latrine.

Use a portable camp toilet or a sturdy bucket with a close fitting lid.

- Line the bucket with two heavy-duty plastic bags.

- Put absorbent material (kitty litter, shredded newspaper) in the inner bag to absorb waste products.

- Cover the container when not in use.

- To use, uncover it, fold the bags down over the sides and defecate directly into the inner bag.

- Sprinkle powdered household bleach or agricultural lime directly onto the feces.

- Use toilet paper sparingly. Put all used toilet paper into the same bag.

- Replace the cover, taking care not to tear the plastic bags.

Changing bags

- Close each of the two bags in the bucket with twist ties, one at a time, inner bag first. Expel the air before closing the bags to avoid tearing them.

- Put the bags into a closed container (like a garbage can) that has already been lined with one or two heavy-duty bags and marked as "human waste." Then put two fresh bags in the emergency toilet, one inside the other.

- Until these wastes can be disposed of properly, keep them well away from human activity. Mark them clearly and protect them from breaking or spilling.

Urinate into a bucket that can be tightly covered before using the emergency toilet.

- Never urinate into the bag since urine weakens plastic.

- Empty the bucket somewhere distant from your patient care/working/living areas so it won't offend anyone.

- Urine is sterile so disposal is less of a problem than solid waste, but make sure that you keep it out of creeks and streams.

Setting up a Morgue

It is very likely that some lives will be lost in the event of a disaster no matter how carefully you prepare. If you have deceased victims in your neighborhood, report the information to authorities as soon as you can. They may be able to arrange for removal of the deceased.

If you know that authorities will be coming soon, it is generally appropriate to cover the deceased respectfully and leave them where they were found. Your primary concern in the initial stages of a disaster response is for the living and what can be done to help them.

If it is likely that help will not be available for hours or days, the deceased should be moved to a morgue area that is some distance from your living area and first aid treatment area.

Plan the location of the morgue area carefully, taking into consideration such factors as weather, protection from stray animals and privacy. An appropriate location would be a place that is as cool and dry as possible, downwind from your living area and accessible by emergency vehicles.

SUMMARY

The goal of **disaster first aid** is to do the greatest good for the greatest number of people.

The responsibility of the **First Aid Team** is to set up a First Aid Treatment Area, triage the injured and provide first aid, coordinate transport of the injured and set up a morgue.

As you are likely to be exposed to serious health and safety hazards, wear latex or vinyl gloves, goggles, face mask, helmet and boots.

Your ability to open airways, control bleeding and treat shock is critical to saving lives.

Triage is a system to sort victims by evaluating injuries and prioritizing them for treatment. Look for airway obstruction, excessive bleeding, and signs of shock.

Label victims Minor-M, Delayed-D, Immediate-I or Dead

Conduct a Head-to-Toe Assessment to determine nature of victim's injury. Look for bruising, swelling, severe pain or disfigurement.

Burns are classified depending on their severity.

In treating wounds you want to control bleeding and prevent secondary infection. A clean dressing is applied directly to wound. A bandage holds the dressing in place.

When treating a suspected fracture, sprain or strain, the objective is to immobilize the injury and joints immediately above and below the injury site with a well-padded splint.

Splinting materials include cardboard, towels, pillows or blankets, newspapers or folded magazines.

Crush injuries are very likely in an earthquake or building collapse.

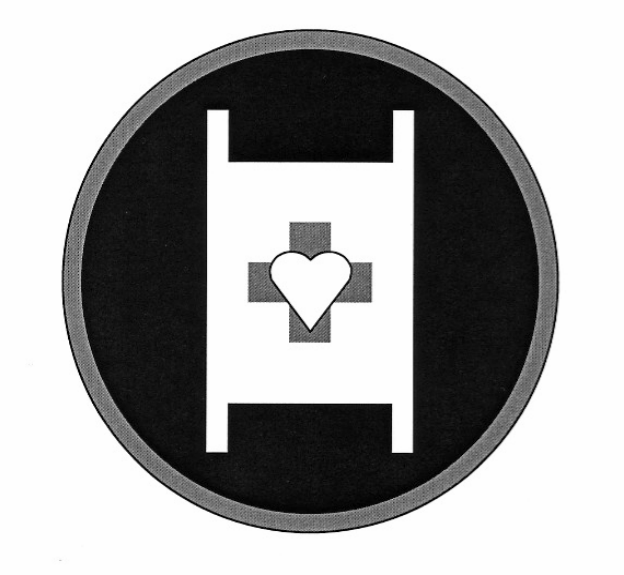
To control nasal bleeding, pinch the nostrils together, and put pressure on the upper lip just under the nose. Tilt the head forward.

Be aware of the symptoms of hypothermia, heat exhaustion and heat stroke and know how to prevent them.

Maintain proper hygiene and sanitation. Follow safety precautions at all times.

Section Five

Disaster Psychology



DISASTER PSYCHOLOGY

Overview

You will experience a wide range of reactions to a disaster within your family and neighborhood. Understanding the psychological impact of a disaster on rescuers and victims, as well as appropriate ways to take care of yourself and other survivors, is vital to the response and recovery effort.

In this section, you will learn about:

- Disaster-related stress reactions
- Providing support to survivors
- Communication do's and don'ts
- Critical Incident Stress Debriefing
- What to do when someone dies

At the end of this section, you will have the knowledge to:

- Recognize symptoms of disaster-related stress
- Provide "psychological first aid"
- Manage stress and promote team well-being

HUMAN RESPONSES TO DISASTER

Most people who are coping with the aftermath of a disaster are normal, well-functioning people who are struggling with disruption and loss caused by the disaster.

Most survivors respond to genuine concern, a listening ear, and help with figuring out how to solve immediate problems caused by the disaster.

Assumptions:

- No one who experiences a disaster is untouched by it.
- Psychological reactions to disaster are normal reactions by normal people to abnormal events.
- It is normal to see a wide range of reactions, including no reaction, to a disaster.
- Disaster stress reactions usually diminish over time but can become more severe over time.
- Neighbors and CORE members can take steps to help themselves and each other cope with disaster-related stress reactions.

Reactions to a disaster

Psychological symptoms may include:

- Irritability or anger
- Self-blame or the blaming of others
- Isolation and withdrawal
- Fear of recurrence
- Feeling stunned, numb, or overwhelmed
- Feeling helpless
- Mood swings
- Sadness, depression, and grief
- Denial
- Concentration and memory problems
- Relationship conflicts/marital discord

Physiological symptoms may include:

- Loss of appetite
- Headaches or chest pain
- Diarrhea, stomach pain, or nausea
- Hyperactivity
- Increase in alcohol or drug consumption
- Nightmares
- Inability to sleep
- Fatigue or low energy

WORKING WITH SURVIVORS' TRAUMA

Some research studies have indicated that survivors go through emotional phases following a disaster:

- In the **impact phase**, survivors do not panic and may, in fact, show no emotion.

- In the **inventory phase**, which immediately follows the event, survivors assess damage and try to locate other survivors. During this phase, routine social ties tend to be discarded in favor of the more functional relationships required for initial response activities (e.g., search and rescue).

- In the **rescue phase**, emergency services personnel (including CORE-trained volunteers) are responding and survivors are willing to take their direction from these groups without protest. This is why CORE identification (helmet, vest and ID badge) is important.

- In the **recovery phase**, the survivors appear to pull together **against** their rescuers, the emergency services personnel.

You should expect that survivors will show psychological effects from the disaster, and some of their anger and resentment will be directed towards you.

A crisis is an event that is experienced or witnessed in which people's ability to cope is overwhelmed:

- Actual or potential death or injury to self or others

- Serious injury

- Destruction of their homes, neighborhood, or valued possessions

- Loss of contact with family members or close friends

Traumatic stress may affect:

- **Cognitive functioning** – Those who have suffered traumatic stress may act irrationally, have difficulty making decisions, or may act in ways that are out of character for them normally. They may have difficulty sharing or retrieving memories.

- **Physical health** – Traumatic stress can cause a range of physical symptoms—from exhaustion to heart problems.

- **Interpersonal relationships** – Those who survive traumatic stress may undergo temporary or long-term personality changes that make interpersonal relationships difficult.

Factors that affect the strength and type of personal reactions:

- **The victim's prior experience** with the same or a similar event. The emotional effect of multiple events can be cumulative, leading to greater stress reactions.

- **The intensity of the disruption** in the survivors' lives. The more the survivors' lives are disrupted, the greater their psychological and physiological reactions may become.

- **The meaning of the event to the individual**. The more catastrophic the victim perceives the event to be personally, the more intense will be his/her stress reaction.

- **The emotional well being of individuals** and the support systems available to help them. People who have had other recent traumas may not cope well with additional stressors.

- **The length of time that has elapsed** since the event's occurrence. The reality of the event takes time to "sink in."

You should not take the survivors' surface attitudes personally. Rescuers may expect to see a range of responses that will vary from person to person, but the responses they see will be part of the psychological impact of the event—and probably will not relate to anything that the CORE members have or have not done.

Stabilizing Individuals

The goal of on-scene psychological intervention on the part of CORE members should be to **stabilize the incident scene by stabilizing individuals**. Do this in the following ways:

- **Assess the survivors for injury and shock**. Address any medical needs first. Observe them to determine their level of responsiveness and whether they pose a danger to themselves or to others.

- **Get uninjured people involved in helping.** Focused activity helps to move people beyond shock, so give them constructive jobs to do, such as getting supplies. This strategy is especially effective for survivors who are being disruptive.

- Survivors that show evidence of being mentally or emotionally unstable should be referred to mental health professionals for support.

PROVIDING SUPPORT TO SURVIVORS

Provide support by:

- **Listening** to people talk about their feelings and their physical needs. Victims often need to talk about what they've been through; they want someone to listen to them.

- **Empathizing**. Show by your responses that you hear their concerns. Victims want to know that someone else shares their feelings of pain and grief.

Help survivors connect to natural support systems such as family, friends, or clergy.

Survivors' Needs and Concerns

In the days and weeks after a disaster, the most common types of problems encountered are problems of daily living. They might include:

- Transportation problems
- Unemployment, loss of child care
- Inadequate temporary living accommodations
- Inability to locate a missing loved one
- Filling prescriptions, lost eyeglasses
- Difficulty applying for disaster relief loans
- Public health concerns

CORE team members can work with their neighbors to help cope with some of these problems.

A Word of Caution

CORE team members may feel the understandable impulse to try to help their neighbors in every way possible. It is easy to become over-involved and try to do too much for the survivors, when actually, people who are empowered to solve their own problems feel more capable, competent, and are more able to tackle the next challenge.

CORE team members should clearly understand the scope of their role in the disaster relief effort and recognize that empowering survivors is different from doing for them.

SOME DO'S AND DON'TS

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Confidentiality

As a CORE team member, you are in a privileged position. Helping neighbors in need may involve the sharing of sensitive feelings and information. This special sharing requires a sense of trust built upon mutual respect; the explicit understanding that all discussions are confidential and private. No case should be discussed elsewhere without the consent of the persons being helped (except in an extreme emergency when it is judged that the persons will harm themselves or others). It is only by maintaining the trust and respect of the survivor that the privilege of helping can continue to be exercised.

Survivors usually respond when helpers offer caring eye contact, a calm presence, and are able to listen with their hearts. Conveying respect and being non-judgmental help build trust between CORE team members and survivors.

Use **Active Listening** techniques:

- **Allow silence** – simply being there can be supportive
- **Attend nonverbally** – eye contact, nod your head, respond nonverbally
- **Paraphrase** – "So you are saying that…" or, "I have heard you say that…"
- **Reflect feelings** – "You sound angry, scared etc. Is that how you feel?"
- **Allow expression of emotion** – Tears or angry venting are part of healing. Stay calm and let the survivor know that it is okay to feel.

Do say:

- **"These are normal reactions to a disaster."**
- **"It is understandable that you feel this way."**
- **"You are not going crazy."**
- **"It wasn't your fault; you did the best you could."**
- **"Things may never be the same, but they will get better, and you will feel better."**

On the surface, the following phrases are meant to comfort the survivors, but do not show an understanding of the person's feelings.

Don't say:

- "**I understand**." In most situations we cannot understand unless we have had the same experience.

- "**Don't feel bad**." The survivor has a right to feel bad and will need time to feel differently.

- "**You're strong/You'll get through this**." Many survivors do not feel strong and question if they will recover from the loss.

- "**Don't cry**." It is ok to cry.

- "**It's God's will**." Giving religious meaning to an event to a person you do not know may insult or anger the person.

- **"It could be worse" or "At least you still have** …" It is up to the individual to decide whether things could be worse.

These types of responses could elicit a strong negative response or distance the survivor from you.

It is okay to apologize if the survivor reacts negatively to something that you said.

Cultural Sensitivity

CORE team members must respond specifically and sensitively to the various cultural groups affected by a disaster. Some groups of people may be especially hard hit because of socioeconomic conditions that force the community to live in housing that is particularly vulnerable. Language barriers, suspicion of governmental programs due to prior experiences, rejection of outside interference or assistance, and differing cultural values can present challenges for workers in gaining access and acceptance.

TEAM WELL-BEING

There are steps that CORE team leaders can take to promote team well being before, during, and after an incident:

- **Provide pre-disaster stress management training** to all CORE members.

- **Brief CORE team members before the effort begins** on what they can expect to see and what they can expect in terms of emotional response in the survivors and themselves.

- **Emphasize that CORE is a team effort**. Sharing the workload and emotional load can help defuse pent-up emotions.

- **Encourage rescuers to rest and re-group** so that they can avoid becoming overtired.

- **Direct rescuers to take breaks** away from the incident area.

- **Encourage rescuers to eat properly and maintain fluid intake** throughout the operation. Explain that they should drink water or other electrolyte-replacing fluids, and avoid drinks with caffeine or refined sugar.

- **Rotate teams** for breaks or new duties (i.e., from high-stress to low-stress jobs). Team members can talk with each other about their experiences. This is very important for their psychological health.

- **Conduct a brief discussion** with team members after their shift in which they describe what they encountered and express their feelings about it.

- **Arrange for a debriefing 1 to 3 days after the event** in which team members describe what they encountered and express their feelings in a more in-depth way.

CORE leaders may invite a mental health professional trained in Critical Incident Stress Management (CISM) to conduct a Critical Incident Stress Debriefing (CISD). A CISD is a formal group process held between 1 to 3 days after the event and is designed to help emergency services personnel and volunteers cope with a traumatic event.

CORE Team Stress Management Strategies

During a disaster response CORE team members should use the following strategies:

- Stay active
- Work as part of a team and avoid isolation
- Remind yourself that your job is important and contributes toward the success of the mission
- Drink fluids to avoid dehydration
- Avoid caffeine, sugar and fatty foods
- Arrange for rest breaks at appropriate intervals
- Seek out support if you need help

Experienced rescue workers find these steps helpful in controlling their stress levels; in some cases, it might be necessary to seek help from mental health professionals.

CISD – CRITICAL INCIDENT STRESS DEBRIEFING

Critical Incident Stress Debriefing (CISD) is one type of intervention within a more comprehensive, multi-component crisis intervention system that is based on a careful assessment of the needs of a group or individual. CISD should **not** be used as a stand-alone intervention; it should be used in conjunction with other types of intervention.

A CISD has seven phases:

- **Introductions and a description** of the process, including assurance of confidentiality
- **Review of the factual material** about the incident
- **Sharing of initial thoughts/feelings** about the incident
- **Sharing of emotional reactions** to the incident
- **Review of the symptoms** of stress experienced by the participants
- **Instruction about normal stress reactions**
- **Closing and further needs assessment**

Participation in CISD should be voluntary.

- To schedule a CISD, contact the Oakland Fire Department, the Red Cross, a local emergency management agency, or a community mental health agency.

WHAT TO DO WHEN SOMEONE DIES

CORE members may need to assist family members at the scene of the death of a loved one. The guidelines below may help you handle this difficult situation:

- **Cover the body; treat it with respect**. Wrap mutilated bodies tightly.
- **Have one family member look at the body** and decide if the rest of the family should see it.
- **Allow family members to hold or spend time with the deceased.** Stay close by, but don't watch—try to distance yourself emotionally.
- **Let the family grieve**. Don't try to comfort them out of a need to alleviate your own discomfort.

In some cases, the family may not know of the death of their loved one, and CORE members may be called upon to tell them. CORE members should:

- **Separate the family members** from others in a quiet, private place.
- **Have the person(s) sit down**, if possible.
- **Make eye contact** and use a calm, kind voice.
- Use the following words to **tell the family members** about the death: "I'm sorry, but your family member has died. I am so sorry."

SUMMARY

Reactions to disasters may include psychological, emotional and physiological symptoms.

Traumatic stress may affect cognitive functioning, physical health and interpersonal relationships.

Provide support to survivors by: listening, empathizing, helping them connect with natural support systems, and empowering them to cope with the challenges of daily living.

Maintain confidentiality and sensitivity to cultural differences as you support victims and team members.

Work as a team and take rest breaks. Drink fluids and eat properly. Seek support if you need it.

Participate in both pre-disaster stress management training and in critical incident stress debriefing after the event.