

AR Training

Updated 2012

First Aid Review



DMME

Division of Mineral Mining

Training Requirement for Foremen

- The DMME certified mine foreman shall be trained in first aid and possess a valid first aid card/certificate issued by an approved agency or organization.
- Training must be updated as required. DMM first aid and CPR training are both on a two year renewal.

Basic Rules

ACCIDENT SCENE SAFETY

- Look for hazards such as:
 - Energized power lines/equipment.
 - Spilled chemicals.
 - Unstable building, machinery, etc.
 - Fire hazards.
- Blindly charging into an accident scene will not help anyone. You may become a victim yourself.
- If in doubt, wait for help.



YOUR PERSONAL SAFETY

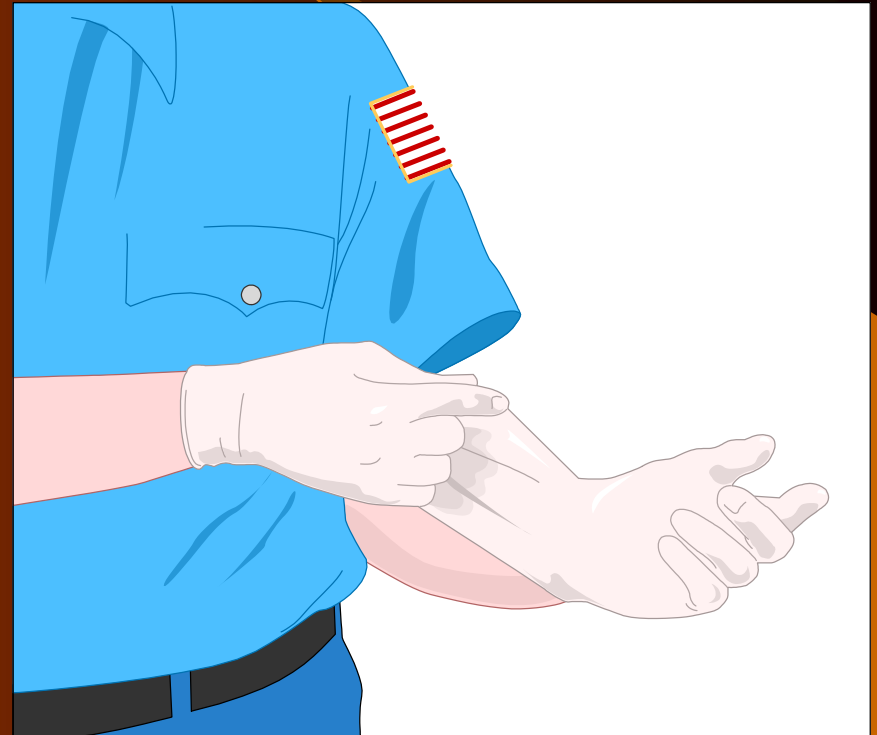
Bodily Fluids Isolation



- Whenever there is a potential to come in contact with bodily fluids, you need to take appropriate measures to guard against contact.
- Most communicable diseases are curable, however, HIV and some forms of hepatitis are not.
- Protect yourself from all blood borne pathogens.

Personal Protection Equipment

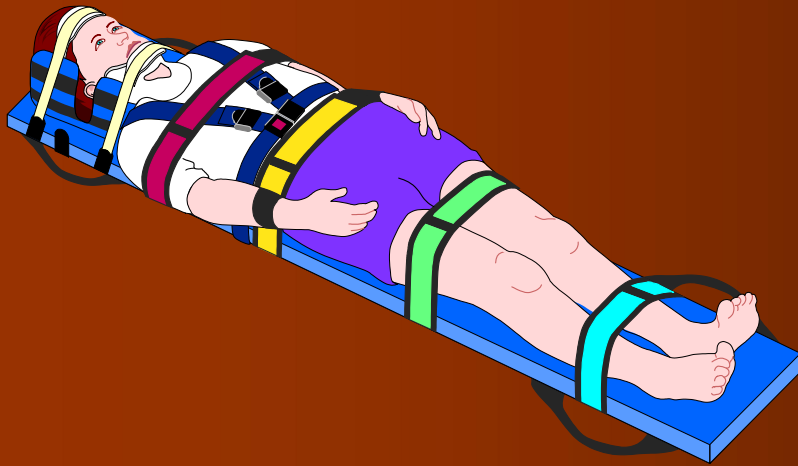
- The minimum PPE you should have available when performing first aid:
 - Latex gloves
 - Safety glasses
 - Resuscitation barrier



➤ In an emergency, use whatever is available. Sandwich bags can be used in place of gloves!

PATIENT SAFETY

Moving The Victim



- NEVER move a victim unless they are in a life threatening position.
- If you must move them, roll/move the body as a unit keeping the back and neck aligned. Support the head and neck. Splint broken bones in the position found prior to moving.

Victim Assessment

Initial Assessment

- The systematic examination of an injured individual to determine their condition and the presence of life threatening conditions.

Establish Consciousness (Responsiveness)

- Tap and talk to the person to see if they are responsive.
- If conscious, get their permission to help.
- If unconscious, you may assume you have permission to help.



Call For Help

- If you are unable to arouse the person, call for help!
- If anyone else is available to make the call, let them do it so you can begin helping the victim.



Airway

- Open the airway for an unresponsive person.
- Use the head-tilt chin-lift method.



Breathing

- To make sure the airway is open:
Look for chest movement.



If The Victim Is Not Breathing....

Begin conventional CPR:

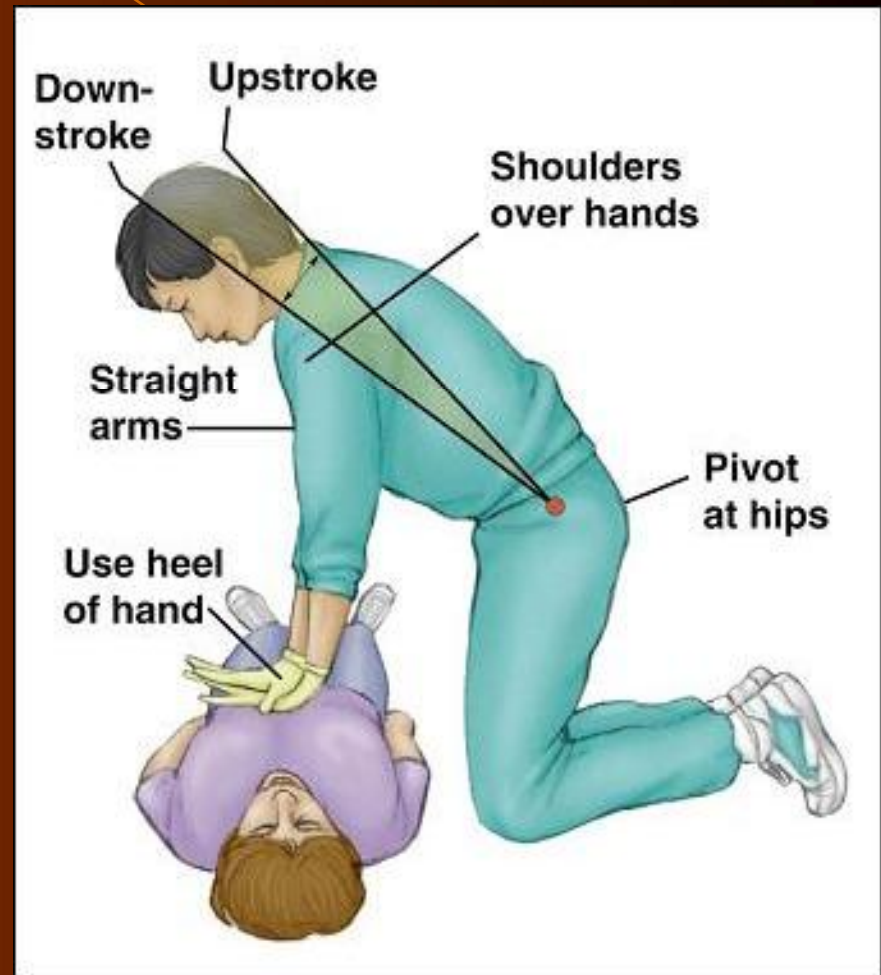
- If you have had CPR training, maintain an open airway, pinch the nostrils, and give two breaths, each lasting one second.
- Expose the chest, position your hands per your training and perform thirty chest compressions.
- Repeat the cycle of breaths and compressions until the victim revives, an AED is available or help arrives.



Compressions done at a rate of 100 per minute!

Hands Only CPR

- For those with no CPR training or protective/barrier devices, once you have established the victim is not breathing, push hard and fast in the center of the chest, mid-way between the nipples, until they revive, an AED unit is available or professional help arrives.
- Try to compress the chest 1 1/2 to 2 inches at a rate of 100 compressions per minute.



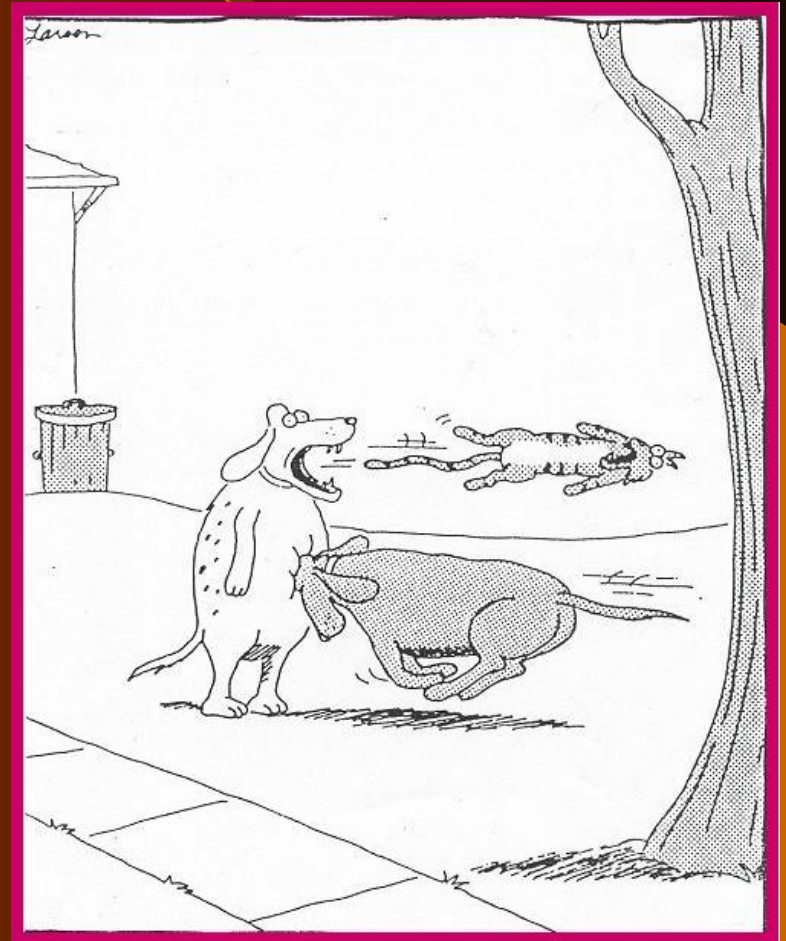
Barrier Devices

- When performing rescue breathing, use a barrier device.
- Minimize potential contact with body fluids.
- Make sure your first aid kit is stocked with breathing devices and gloves.

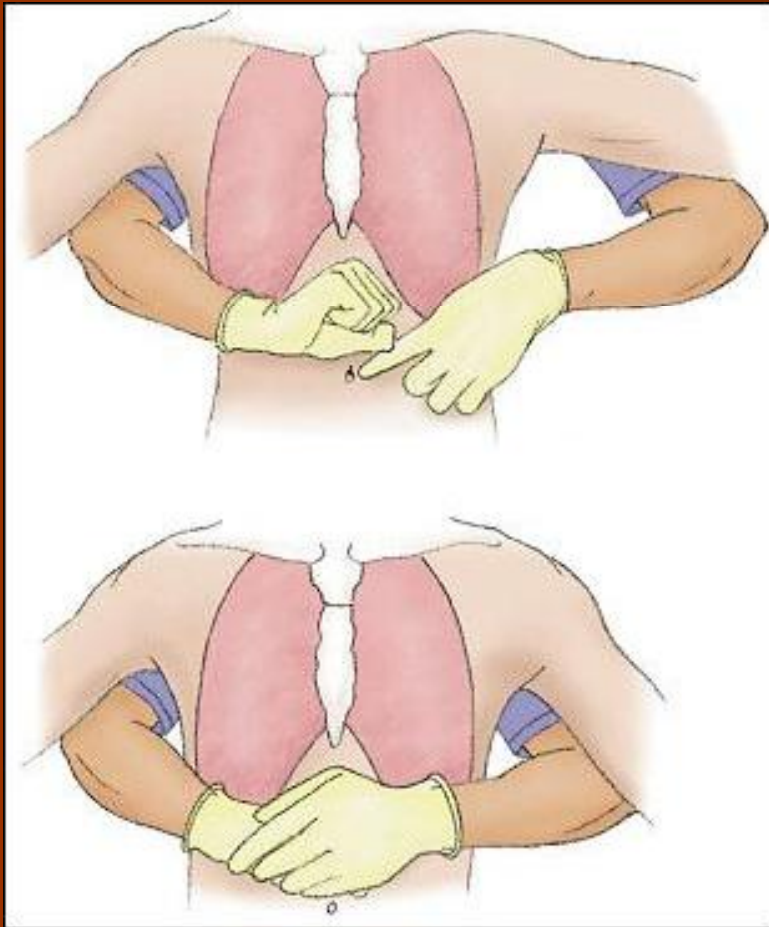


Choking

- Choking is a life threatening condition.
- If the person is able to make sounds or breathe, encourage them to clear the object themselves.
- If a complete obstruction occurs, be ready to assist the person.




Conscious Choking



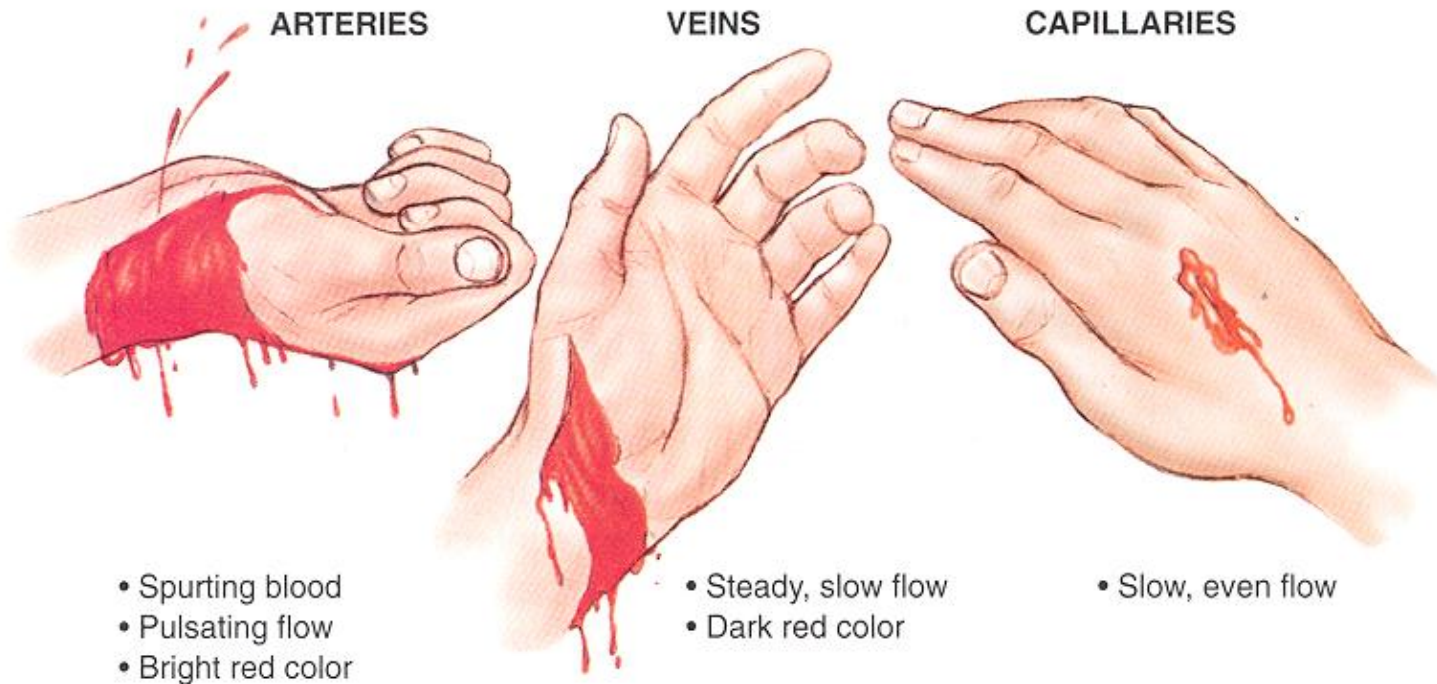
- Get victim's permission to help.
- Position yourself behind the person.
- Position one leg slightly between theirs.
- Reach around them and place your hands just above their navel.
- Perform quick, inward and upward thrusts to remove the object.

If The Victim Loses Consciousness....

- Carefully lower them onto their back.
- Make certain 911 has been called!! 
- Open the airway (head tilt, chin lift) and check to see if the object can be removed. Be careful not to push it farther in!
- If the victim is not breathing, begin conventional or hands only CPR.
- Check the airway and remove the object if possible prior to giving breaths and/or between compression cycles.

Bleeding and Shock

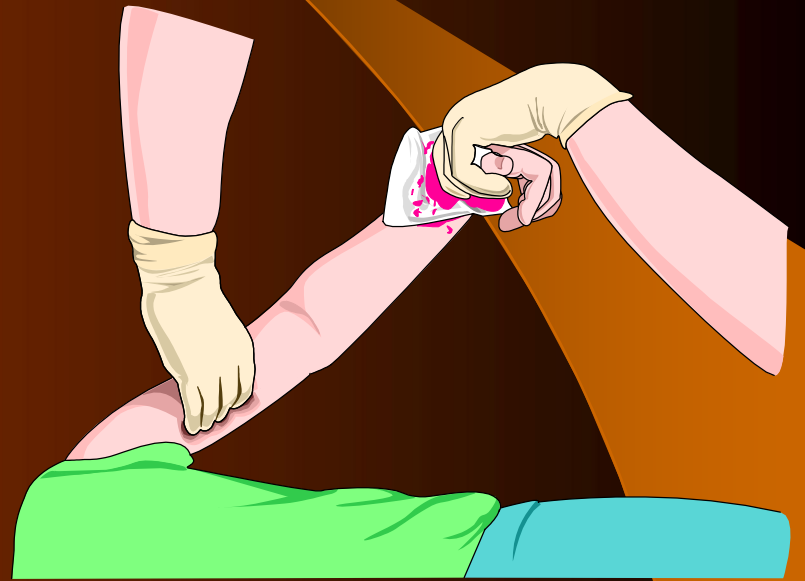
Types of Bleeding



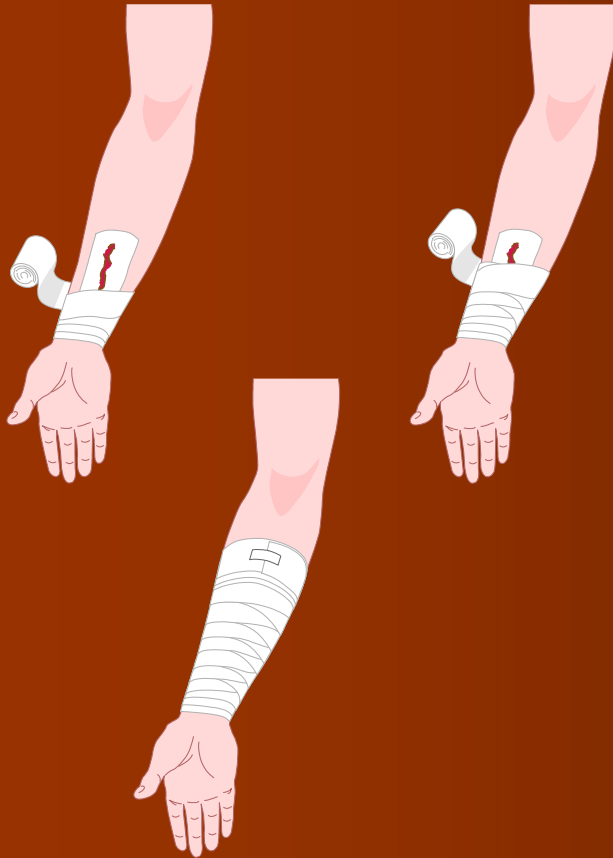
Control of Bleeding

Direct Pressure & Elevation:

- Apply a clean dressing over the injury and hold with firm pressure.
- If blood soaks through the first dressing, apply a second on top of the first. Repeat if necessary. Never remove dressings.
- Elevate an extremity if possible.



Applying Dressings and Bandages



- For minor injuries, rinse and dry the wound. Run water over deep wounds for 5 minutes.
- Do not use alcohol, iodine or hydrogen peroxide.
- If the wound is severe (heavy bleeding), apply sterile dressing without cleaning.
- Hold dressing in place with a bandage. Tie snug, but not too tight.
- Monitor circulation. Ask if fingers or toes are tingling, if so, loosen the bandage.

Impaled Objects

- Do not remove the object!! This could cause more bleeding and injury.
- Apply pressure/dressings around the object to control bleeding.
- Stabilize the object and bandage in place.



Amputations

- Control bleeding and care for the wound first.
- Then, wrap the severed part in a dry, sterile dressing or clean cloth. Do not clean the part.
- Place the part in a plastic bag and seal it.
- Place the sealed bag in another bag or container with ice. Do not let the part contact the ice directly or be surrounded with ice.
- Give the severed part to emergency personnel.

Internal Bleeding

Signs include:

- Abdomen may be bruised, tender, swollen or hard.
- Victim may vomit or cough up blood.
- Cool, clammy, pale or bluish skin.

Treatment:

- Call 911!!
- Treat for shock and monitor condition.



Shock

- Shock occurs when there is an inadequate flow of oxygenated blood to the body's organs.
- If not recognized and treated, the body may shut down and die.



Signs and Symptoms of Shock

- Pale or ashen skin color.
- Cool, clammy skin.
- Nausea.
- Feelings of impending doom.
- Rapid pulse.
- Increased breathing rate.
- Altered levels of consciousness.

Treatment For Shock



- Control bleeding, if present.
- Elevate feet 6-12 inches unless injuries prevent it.
- Loosen tight clothing.
- Keep the patient warm.
- Keep victim calm and reassure them.
- Do not give the victim anything to eat or drink.

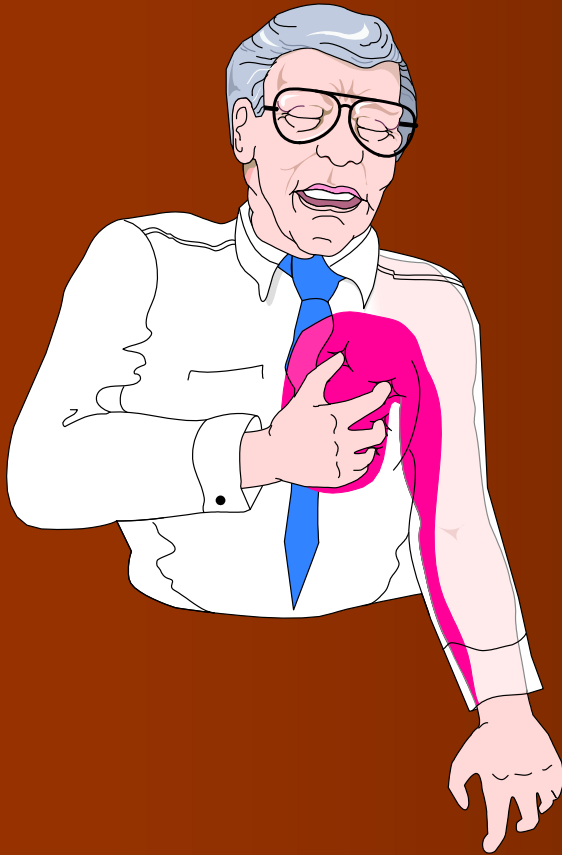
Anaphylactic Shock



- Caused by an allergic reaction to insect bites or food.
- Characterized by itching, red skin. Formation of hives and swelling in the throat. Difficulty breathing.
- If not treated rapidly, it can lead to respiratory failure and death.
- Ask if the person has an Epinephrine kit or “pen”.

➤ **Even with an Epinephrine kit or “pen”, the victim will need medical attention as soon as possible!!**

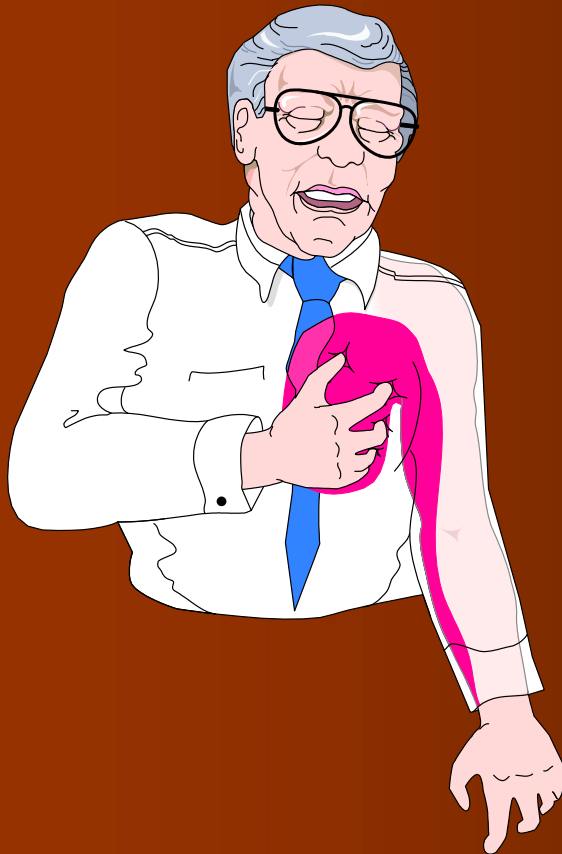
Heart Attack



Signs and Symptoms:

- Pain/pressure in the chest.
- Pain may spread, or appear, in jaw, shoulders, arms and back.
- Sweating, nausea and/or vomiting.
- Feeling of impending doom.

Heart Attack



Treatment:

- Help the person rest in a comfortable position. Loosen restrictive clothing.
- Ask them if they are taking heart medication. If they are, get it for them.
- Calm and reassure them.
- Do not let them eat or drink anything.

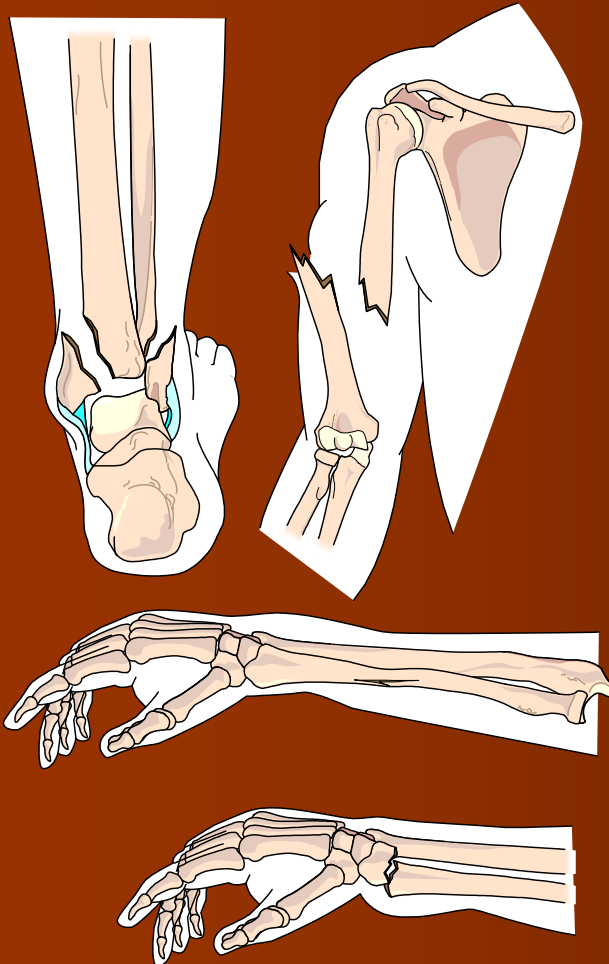
Bone And Joint Injuries

Signs and Symptoms of a Fracture

- Swelling.
- Deformity.
- Discoloration (bruising).
- Pain.
- Inability to use the body part.



Types Of Fractures



- There are two types of fractures:
 - Open
 - Closed
- Open and closed fractures are essentially treated the same.
- Except, in the case of a protruding bone, place dressing around the bone to control bleeding. Bandage/support in the position found.

Treatment For Fractures Using “Rice”

- R – rest (support, do not move the injured area)
- I – ice (place ice or a cold pack on the injured area)
- C – compression (apply pressure to control swelling)
- E – elevation (elevate an injured extremity. A sling may be used for an arm.)

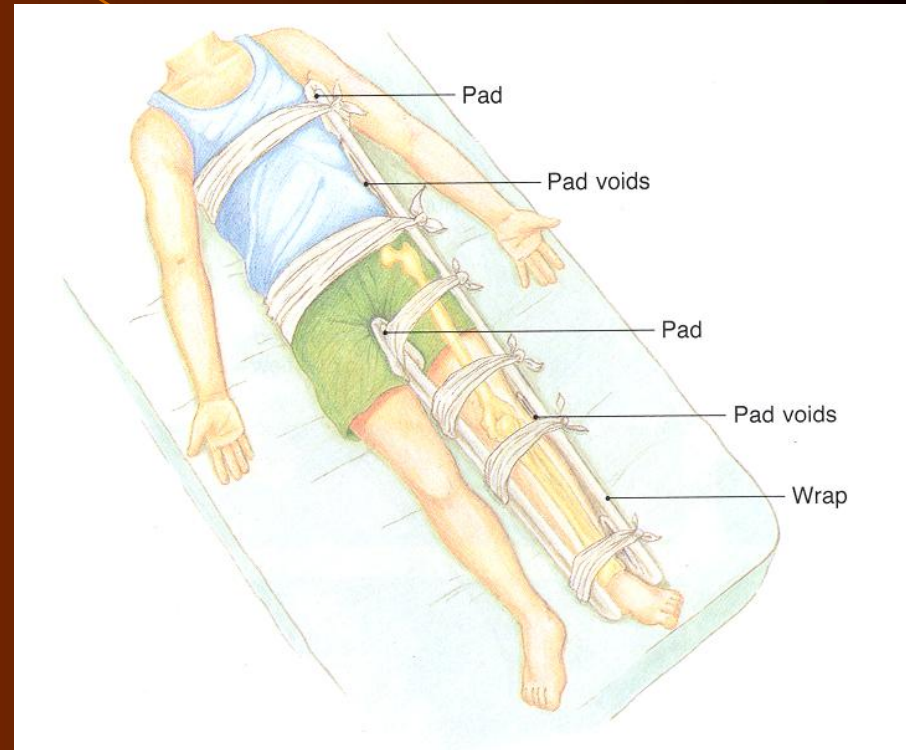
➤ Treat broken bones in the position found.

➤ Call 911 for any large bone fracture or dislocation!!



Splinting

- Should immobilize the fracture from joint to joint.
- Should be padded to provide comfort to the patient.
- Tie firmly but do not limit circulation to the injured extremity.
- Splints can be made out of virtually any rigid or semi-rigid material; scraps of wood, broom handles, umbrellas, rolled up newspapers or magazines. A good leg may be used to stabilize an injured one.

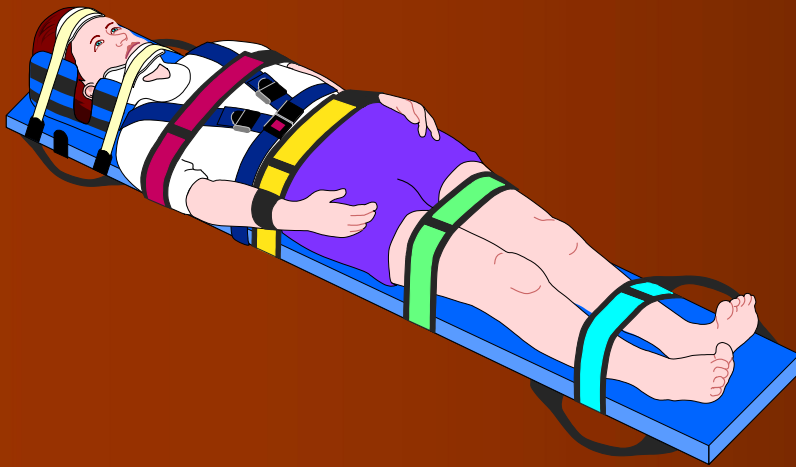


➤ **Splint only if the victim must be moved or if there will be an extended amount of time before rescue help arrives!!**

Splinting Materials



Spinal and Neck Fractures



- If you suspect spinal or neck fractures, do not move the victim unless necessary for life support.
- Stabilize the person as you found them.
- Maintain an open airway.
- Treat for shock (do not raise feet).
- Monitor until help arrives.

Heat Exhaustion And Heat Stroke

The background is a gradient of dark brown and orange. A thin, light orange curved line starts from the top left and arcs towards the right. A larger, darker orange triangular shape is positioned on the right side, pointing towards the center.

Heat Exhaustion

Signs and symptoms:

- Heavy sweating, thirst, fatigue and cramps.
- Later – headache, dizziness, nausea and/or vomiting.

Treatment:

- Move the victim to a cool place, loosen clothing.
- Raise the legs 8 to 12 inches.
- Give them a sports drink or water. No caffeine or alcohol!
- Cool the victim by placing wet cloths on the forehead and body or sponge the skin with cool water.

Heat Stroke



Signs and Symptoms:

- Skin is flushed and very hot.
- Sweating may have stopped.
- Fast breathing.
- Headache and/or dizziness.
- Confusion, irrational behavior.

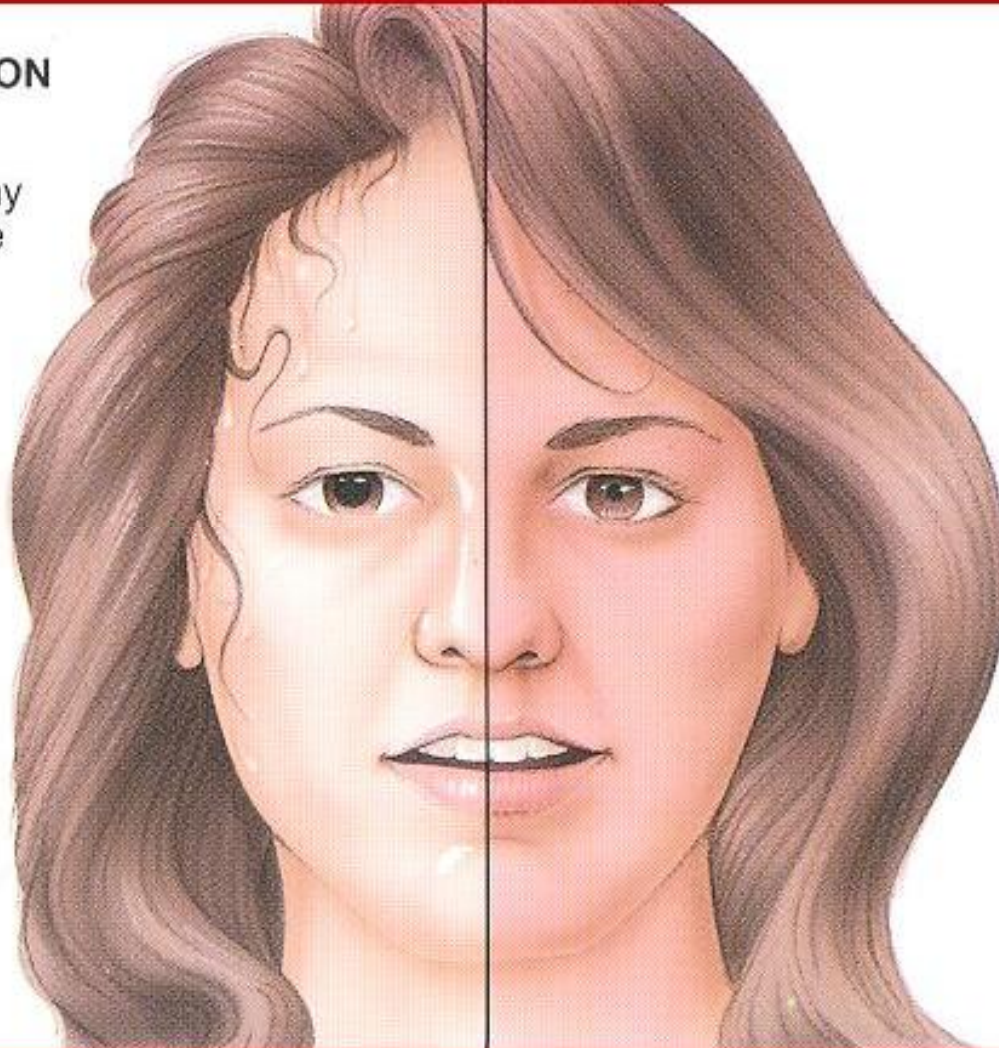
➤ **Heat stroke is a life threatening condition!!**

Treatment:

- Move the victim to a cool place and remove outer clothing.
- Cool the person as quickly as possible with whatever is available; wrap them in a wet sheet and keep it wet, sponge or spray skin with cold water, apply ice bags or cold packs beside the neck, in the arm pits and groin. Do not give drinks if they are nauseous or vomiting or in a diminished mental state.

HEAT EXHAUSTION

- Moist and clammy skin, usually pale
- Pupils dilated
- Normal or subnormal temperature
- Weak, dizzy or faint
- Headache
- No appetite, nausea



HEAT STROKE

- Dry hot skin, usually red
- Pupils constricted
- Very high body temperature
- Coma or near coma
- Pulse strong and rapid

Hypothermia

911

Signs and Symptoms:

- Uncontrollable shivering.
- Apathy, confusion, drowsiness or irrational behavior.
- Cool, pale or ashen skin.
- Slow breathing.

➤ **Except in mild cases, the victim needs medical attention!!**

Treatment:

- Move the victim out of the cold, remove any wet clothing.
- Warm them with blankets or warm clothing.
- Give warm drinks if the victim is alert and can easily swallow. No caffeine or alcohol!
- Do not – use direct heat (hot water, hot water bottles, heating pads or heat lamps) to warm the person. Warming too rapidly can cause heart problems!

END