



Basic First Aid

GETTING THE MOST OUT OF THIS CLASS

- ◆ Don't get focused on perfection
- ◆ Don't be intimidated
- ◆ Have fun
- ◆ Be decisive and then act
- ◆ Your training comes back, once you start

Adequate aid provided is better than perfect aid withheld!

YOUR FACILITATOR

Ken Napior

- Structural Engineer
- First Aid Instructor
 - American Red Cross
 - Emergency First Response
- CERT Division C Coordinator (NBH 7, 8 & 9)
- SMC Sheriff volunteer–Search & Rescue Unit
- Governor's Office of Emergency Services
 - Structure Assessment Program, SAP

ACCREDITING ORGANIZATIONS

- ◆ Occupancy Safety & Health Admin., OSHA
- ◆ Medical Rescue Association
- ◆ American Red Cross
- ◆ Emergency First Response
- ◆ National Safety Council

Bleeding Management

IN THIS SESSION YOU WILL LEARN HOW TO:

- ◆ Manage Bleeding
- ◆ How to Bandage a Wound
- ◆ How to Splint a Fracture



Chain of Survival

Recognition by First Responder

Activation of EMS

Emergency Response Team Care

EMS Care

Hospital Care

Patient Recovery

Rehabilitation

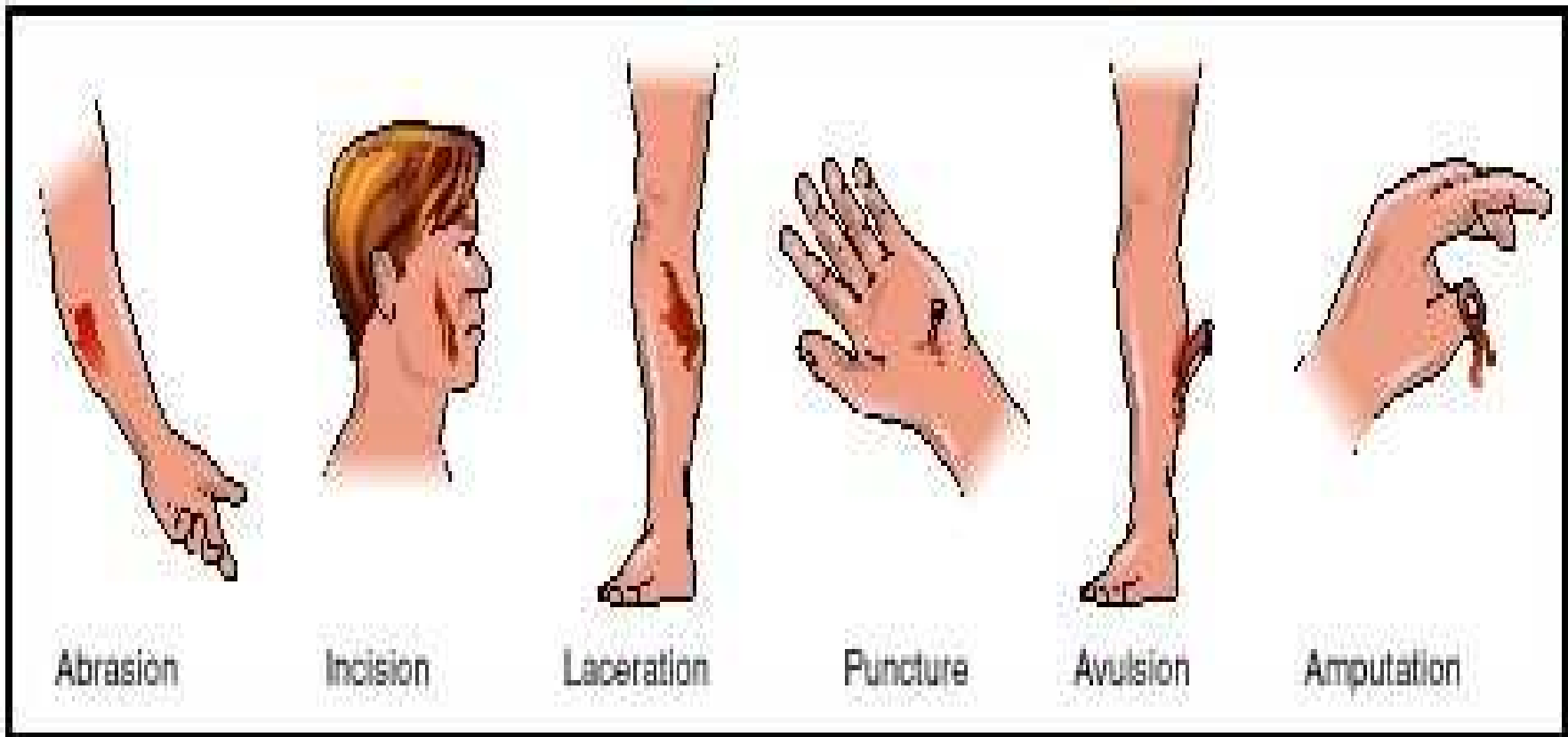




Four Main Types of Open Wounds

<u>Type</u>	<u>Cause</u>
Abrasion	Rubbing or scraping away the skin.
Laceration	Usually a cut from a sharp object.
Avulsion	Complete or partial tearing away of the skin and/or other soft tissue.
Puncture	Piercing of the skin by an object.

Types of Open Wounds



Visual 4.7

Bleeding Management

Can you name the three types of bleeding and describe the signs?



Visual 4.8



Bleeding Management

Arterial Bleeding

- ◆ Bright red (oxygen rich) and spurts.
- ◆ Carrying blood from the heart to the organs.
- ◆ Most serious - blood loss occurs quickly.
- ◆ Apply direct pressure immediately.
- ◆ Death can occur in as little as 1 minute.
- ◆ Classify Immediate.
- ◆ Alert EMS.



Bleeding Management

Venous Bleeding

- ◆ Dark red / maroon in color.
- ◆ Steadily flowing back towards the heart.
- ◆ Under lower pressure, but also life threatening.
- ◆ Easier to control with direct pressure.
- ◆ Classify Immediate.
- ◆ Alert EMS.

Bleeding Management

Capillary Bleeding

- ◆ Slow bleeding, normally controllable.
- ◆ Small blood vessels, low pressure.
- ◆ Classify as Minor or Delayed.
- ◆ Alert EMS if necessary.



Bleeding Management

- ◆ Assess the scene
- ◆ Alert EMS, if necessary.
- ◆ Obtain consent. Use protective barriers.
- ◆ Check patient responsiveness.
- ◆ Perform Primary Assessment !

Airway

Breathing

Circulation

Defibrillation

Serious Bleeding

Shock



Bleeding Management

- ◆ Direct Pressure is most effective
 - Release pressure periodically to determine if bleeding has stopped.
- ◆ Apply pressure over a sterile dressing
 - Tie a bandage over dressing.
 - Do not remove bandages.
 - Add bandages as necessary.
 - Use moderate pressure.



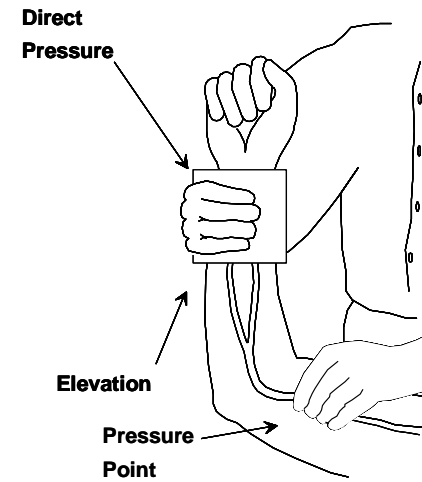
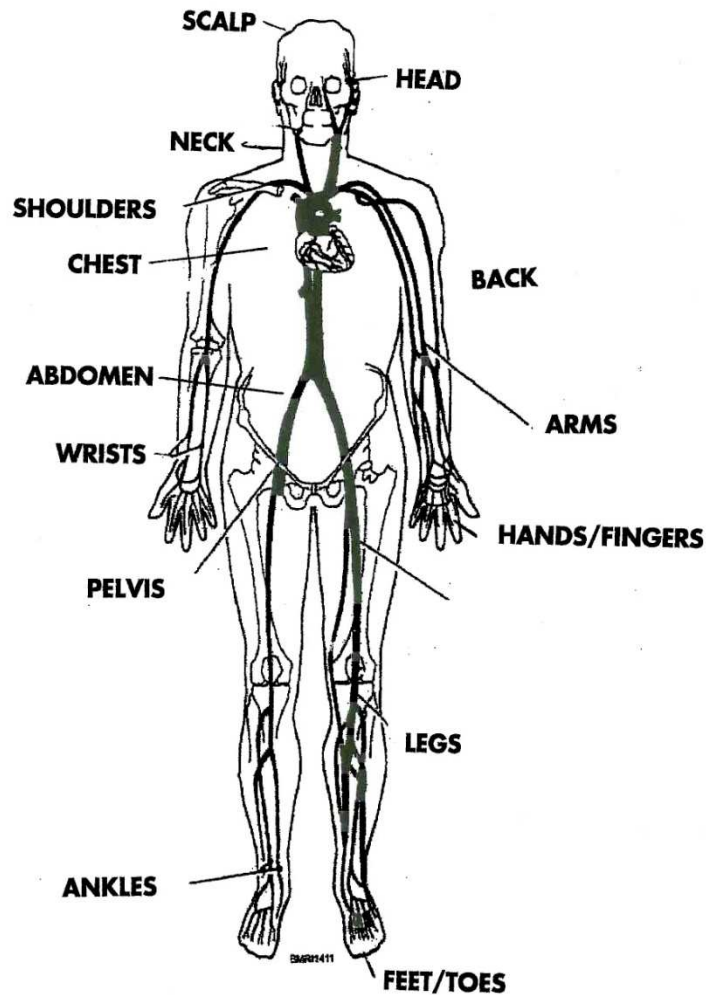
Bleeding Management

- ◆ Elevate the bleeding area
- ◆ Use pressure points, if necessary.
 - Where an artery lies next to a bone use fingers, thumb or heel of your hand.
 - Observe if bleeding slows
 - Hold long enough to allow clotting.
- ◆ Check, clean wound every 4 to 6 hours, if no active bleeding.



Bleeding Management

Pressure Points



Types of Dressings

Dressings are sterile pads or compresses used to cover wounds.

- ◆ Adhesive strips, Band-Aids
- ◆ 2 x 2 sterile pads
- ◆ 4 x 4 sterile pads or larger
- ◆ Blood clotting types available.



Types of Bandages

Bandages are made of gauze or muslin and are used over a sterile dressing, to close off its edges from dirt and germs.

- ◆ Conforming bandages
- ◆ Gauze rollers
- ◆ Elastic rollers
- ◆ Triangular bandages
- ◆ Chose type appropriate for injury
- ◆ Use what is available



Demonstration !



Bandaging

- ◆ Apply sterile dressing to wound
- ◆ Apply bandage over sterile dressing
- ◆ Start below the wound and wrap towards the heart.
- ◆ Wrap firmly and consistently
 - Avoid making too loose or too tight
 - Leave fingers/toes exposed to check circulation
- ◆ Secure the ends of bandage.
- ◆ If active bleeding, redress over existing dressing.

Infection

- ◆ Usually caused by bacteria
 - Streptococcus (strep)
 - Staphylococcus (staph)
- ◆ Local, Streaking, Blood, or Pus-forming
- ◆ Most dangerous
 - Gangrene, Tetanus



Bandaging

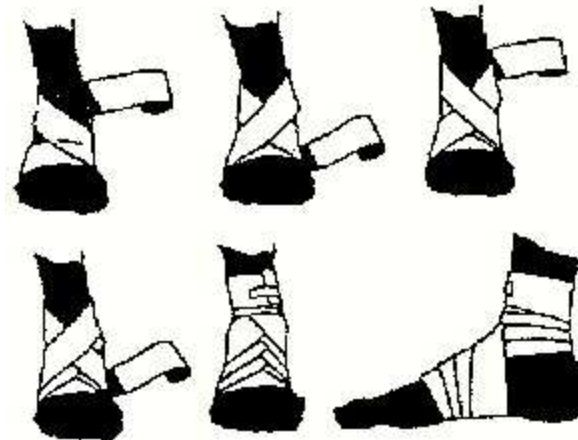
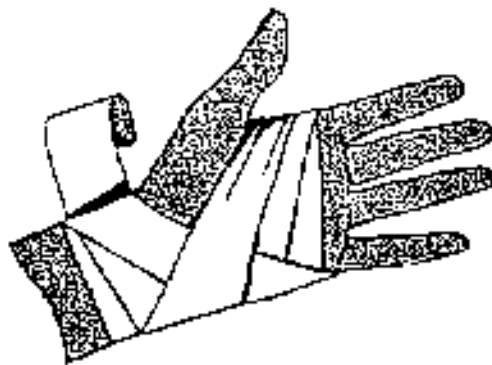


Signs of Infection:

- ◆ Swelling around the wound site.
- ◆ Discoloration around the wound.
- ◆ Discharge from the wound.
- ◆ Red striations from the wound site.

Bandaging

- ◆ Foot -Wrap around the ankle several times
- ◆ Hand – secure over thumb and around wrist
- ◆ Elbow – bandage below and above the joint
- ◆ Knee – bandage below and above the joint

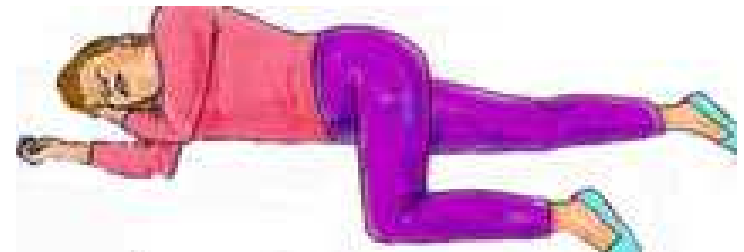


Visual 4.21

Student Practice

First aid

Tip: *Do no harm !*
Keep the blood in !
Keep the germs out !



Bandaging

Impaled Objects

- ◆ Wash the wound if possible
- ◆ Control bleeding quickly- pressure dressing
- ◆ Do not move or remove object
- ◆ Add support around impaled object
- ◆ Apply bandage over dressing
- ◆ Rest and elevate the injured part

Demonstration !



Treating Amputations

- ◆ Control Bleeding – Apply Direct Pressure
- ◆ Treat for Shock
- ◆ Save severed parts, wrapped in clean cloth
- ◆ Keep severed parts cool
- ◆ Keep severed parts with victim



Tourniquet Use

- ◆ Do not use unless victim will die if bleeding is not controlled.
- ◆ Applied only by trained personal.
- ◆ Must leave in place, once applied.
- ◆ Will stop all flow of blood below tourniquet.
- ◆ Will lose any part of the body past the tourniquet.

Burns

Causes of burns:

- Heat
- Chemical
- Electrical
- Radiation.

Treating burns:

- Prevent shock
- Ease Pain
- Reduce risk of infection



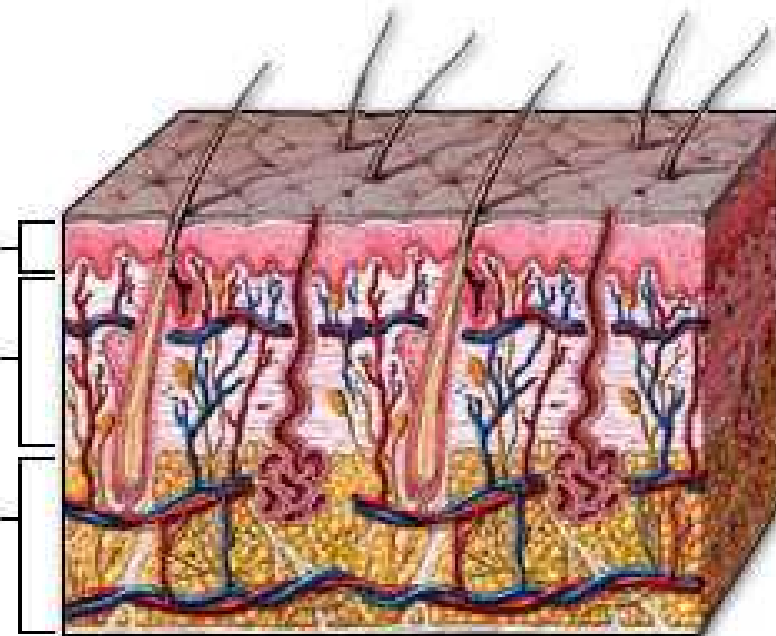
Layers of the skin

- ◆ Epidermis
- ◆ Dermis
- ◆ Subcutaneous layer

Epidermis

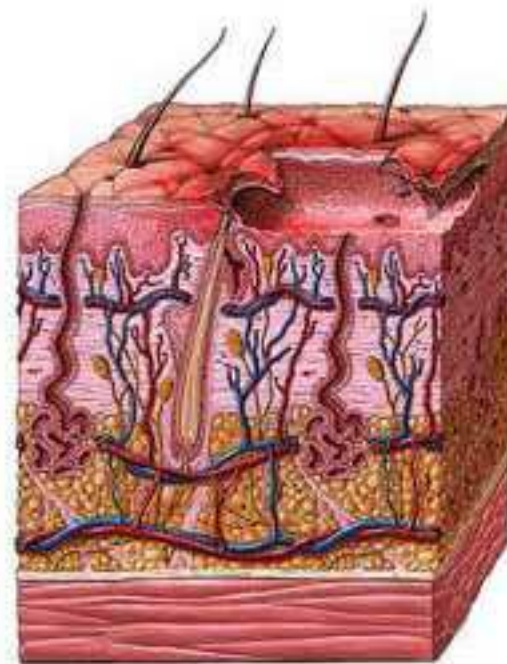
Dermis

Subcutaneous
Layer



First Degree

- ◆ Superficial burns – involves only the first layer of skin.
- ◆ Skin is red and dry
- ◆ Usually painful
- ◆ Area may swell
- ◆ Generally heal in 5 to 6 days.



1st degree burn

Second Degree

- ◆ Damage to both the epidermis and dermis layers.
- ◆ Red and blistered.
- ◆ May be open and weep clear fluid.
- ◆ Skin may appear wet.
- ◆ Usually painful with swelling.
- ◆ Heals in 3 to 4 weeks.
- ◆ Treat for shock.
- ◆ Classify “Immediate.”



Burns

Third Degree

- ◆ Destroys both layers of skin, as well as fat, muscles, bone and nerves.
- ◆ Life threatening – body loses fluid, and shock is likely to occur. Difficult to control body temperature.
- ◆ Scarring occurs, requires skin grafts.
- ◆ Brown or charred (black)
- ◆ Prone to infection.
- ◆ Painful or relatively painless.
- ◆ Classify “Immediate.”



3rd degree burn

Fourth Degree Burns

- ◆ Damaged bone tissue
- ◆ Life threatening
- ◆ Most of the hypodermis is lost
- ◆ Charring and exposed muscle
- ◆ Frequently fatal

Care for Burns

- ◆ Perform Primary Assessment.
- ◆ Cool the burned area – water or saline solution.
- ◆ Cover the burned area *loosely* with sterile dressing.
- ◆ Treat for shock.
- ◆ Perform Secondary Assessment.

Demonstration !

Myth Busters !

- ◆ Do not apply ice to the burned area.
- ◆ Do not touch with anything except sterile dressing.
- ◆ Do not remove pieces of burned, damaged skin.
- ◆ Do not remove pieces of cloth in the burned area.
- ◆ Do not try to clean a 3rd degree burn.
- ◆ Do not break blisters.
- ◆ Do not use any grease, butter or ointment on severe burns.

Triangular Bandages

- ◆ Used to support injuries.
- ◆ Place over the shoulder.
- ◆ Bend elbow, forearm across chest.
- ◆ Bring lower end of bandage to opposite shoulder.
- ◆ Tie off at back of neck.
- ◆ Tie off corner at elbow – locks arm into sling.
- ◆ Monitor color of fingers.
- ◆ Secure arm to chest with cravat.



Cravat Bandages

A rectangular or triangular bandage folded into strips is called a cravat.

Can be improvised from T-shirts or other linens, such as a scarf and cut to the desired size.

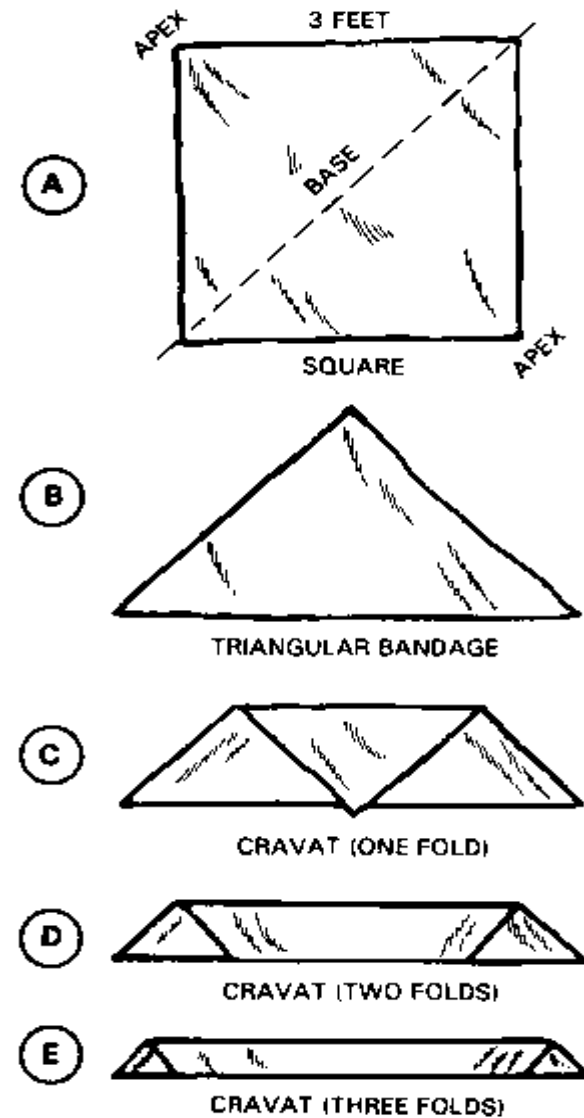


Figure A-2. Triangular and cravat bandages (Illustrated A thru E).

Splinting Dislocations and Fractures

Closed Fracture

- ◆ Broken bone with no associated wound.
- ◆ Splint and immobilize in position found.
- ◆ Swelling, bruising.
- ◆ Person cannot bear weight.



Splinting Dislocations and Fractures

Open Fracture

- ◆ Broken bone with open wound.
- ◆ Risk of bleeding and infection.
- ◆ Do not attempt to reset bones.
- ◆ Do not irrigate wound.
- ◆ High priority, check frequently.
- ◆ Apply sterile dressing and wrap
- ◆ Splint and immobilize.



Visual 4.37

Splinting Dislocations and Fractures

Dislocations

- ◆ Signs are similar to fracture.
- ◆ Treat just like a fracture.
- ◆ Do not attempt to reset dislocation.
- ◆ Splint and immobilize limb, joint.



Splinting Dislocations and Fractures

- ◆ Use splints when EMS will be delayed.
- ◆ Splint injury in position you find it.
- ◆ Splints may be made from rigid, semi-rigid, or flexible material.
- ◆ Choose a splint long enough to immobilize joints.
- ◆ Use padding to make splints comfortable.
- ◆ Check circulation before AND after splinting.
- ◆ Use slings to support arms.
- ◆ Immobilize splinted parts to non-injured parts.



Basic First Aid

Student Practice

- ◆ Wound Care
- ◆ Bandaging
- ◆ Splinting



Tip: General care for muscle, bone, or joint injuries include – Rest, Ice, Compress, Elevation (RICE).

Basic First Aid

NOW YOU KNOW HOW TO:

- ◆ Manage Bleeding
- ◆ How to Bandage a Wound
- ◆ How to Splint a Fracture



You can make a difference !