

## Unit 3 – Bleeding

The 2 major objectives for first aid care for wounds:

1. Stop Bleeding
2. Prevent Infection

The 2 places on the body that most likely to bleed the easiest:

1. Head
2. Hands

Three Kinds of Blood Vessels:

Arteries – Largest vessel, carry oxygenated blood

Veins – Carry carbon dioxide and waste products

Capillaries – Smallest vessel, provide for an exchange of oxygen and nutrients throughout the cells of the body

Four Components of Blood:

RBC – carry oxygen and nutrients

WBC – fight infection and contamination

Plasma – vehicle of transportation

Platelets – clotting

The difference between open and closed wounds is that the *open wound is “open” to air* (or the skin is broken) and the *closed wound is not open to air* (the skin is not broken).

### Open Wounds

Name	Symptoms	Example
<u>Abrasion</u>	Rubbing, scraping, “ooze”, bleeding minor	Skinned knee
<u>Incision</u>	Smooth, clean cut	Razor blade, Paper cut
<u>Laceration</u>	Jagged edge cut, poss. Lots of blood	Chain saw, Car accident
<u>Puncture</u>	Penetrates skin, Bleeding minor	Nail, gun shot
<u>Avulsion</u>	Very serious, body part or large section of skin is torn ripped or severed	Horse bite, Machinery accident

### Pressure Points

Name	Location	Body Part It Controls Bleeding to
Temporal	side of ear	scalp and ear
Facial	notch of jaw	face, chin
Subclavian	1/3 down clavicle	shoulder
Brachial	inside, upper arm	arm
Radial	thumb side of wrist	hand
Femoral	inside, upper leg	leg

Two best places to take a Pulse

1. Carotid, located on the side of the neck
2. Radial thumb side of wrist

Definitions:

Systolic pressure – pressure in cell walls during contraction

Diastolic pressure – pressure in cell walls during relaxation

Pulse – the involuntary beating of the heart

Arteries – carry oxygenated blood

Veins – carry carbon dioxide and waste products

Capillaries – provide for an exchange of oxygen and nutrients

Red Blood Cells – carry oxygen and nutrients

White Blood Cells – fight infection and contamination

Plasma – vehicle of transportation

Platelets – aid in clotting of blood

Closed Wounds: Wounds that are not exposed to air, such as bruises, and injuries which have internal bleeding.

Signs and Symptoms:

1. cold, clammy, pale skin
2. localized pain and tenderness
3. vomiting or coughing up blood
4. swelling, hard, deformed, discolored
5. anxiety, restlessness
6. fast, weak pulse
7. strong thirst
8. fast breathing

First Aid:

1. Check, Call 911
2. Maintain open airway
3. Ice and elevate
4. If need for transport, lie down

## Infection:

### Signs and Symptoms:

1. Swelling
2. Redness
3. Sensation of warmth
4. Area around wound is tender
5. Wound throbs
6. \*\*\* Temperature or fever
7. \*\*\* Red streak runs up arm or leg closest injury
8. \*\*\* Swollen lymph glands (arm pit, groin, neck)

\*\*\* means more serious infection

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## Prevention of Infection:

1. Make a working environment that is clean and sterile.  
Ex. Wash the wound and wear gloves
2. Apply a dressing, then a bandage
  - a. Dressing-sterile gauze that goes directly over wound.
  - b. Bandage – holds dressing in place and applies pressure.

## First Aid for Infection:

1. Wash minor injuries with soap and water before dressing
2. Immobilize affected body part
3. If possible, elevate affected body part
4. Apply warm, moist heat for periods of 30 minutes.
5. Seek medical attention, if serious

## **Treat all open wound injuries the same: (prevention of AIDS transmission)**

1. Have barrier from body fluids, blood
2. Wash with soap and water ASAP