Bleeding

Blood

Functions of Blood;

- **Respiration** - to carry oxygen and carbon dioxide
- **Nutrition** - to carry food to the tissues
- **Excretion** - To carry wastes from some organs (kidneys, lungs, and skin)

Blood

Functions of Blood cont;

- **Body regulations** - to carry hormones, water, salts, and other compounds needed to keep the body's functions in balance.

- **Defense** - to protect against disease-causing organisms

Blood

- Blood contains red blood cells, white blood cells, and elements involved in forming blood clots.

- All these are carried by a watery, salty fluid called Plasma.

-Blood is carried away from the heart by arteries, and back to the heart by veins.

Blood

- Capillaries
  - Where the exchange takes place

Arteries - Capillaries - Veins

Types of Bleeding

- External
- Internal

Types of Bleeding

External Bleeding

- Arterial Bleeding
  - Blood is flowing from an artery
  - Color is red
  - Wound will spurt
  - Blood loss is rapid and extensive

Types of Bleeding

External Bleeding

- Venous bleeding
  - Blood flow is flowing from vein
  - Color is dark red (deep maroon)
  - Flow is steady
  - Can also be profuse

Types of Bleeding

External Bleeding

- Capillary Bleeding
  - Blood is oozing from a bed of capillaries
  - Color is red, less bright than arterial blood
  - Flow is slow
  - Minor scraps and shallow cuts

Controlling External Bleeding

Four Major Procedures

1. Direct pressure
2. Elevation (used with direct pressure)
3. Pressure Points
4. Apply a tourniquet

Controlling External Bleeding

In case of profuse bleeding

1. Do not waste time hunting for a dressing.
2. Place your gloved had directly over the wound and apply pressure.
3. Keep applying steady, firm pressure.

Controlling External Bleeding

Mild or well controlled bleeding;

1. Apply firm pressure using a sterile dressing or clean cloth.
2. Apply pressure until bleeding is controlled. (10-30 minutes)
3. Hold the dressing in place with bandages only after you are certain the bleeding has stopped.
4. NEVER remove any dressings

Controlling External Bleeding

Pressure Points

- Sites where an artery, close to the body surface, lies directly over a bone.
- Blood flow can be interrupted by applying pressure.
- Only use this method only if Direct Pressure has failed to control bleeding.

Controlling External Bleeding

Pressure Points

How many pressure points in the body?

22 major pressure point sites, 11 on each side of the body.

- Upper arm - use the brachial artery
- Thigh - use the femoral pressure point

Bleeding of the Arm

- Extend the patient's arm, placing it at a right angle, lateral to the body for best results. Patient's palm is in anatomical position
  - Cradle the patient's upper arm in the palm of our gloved hand and position your fingers in the medial groove found below the biceps muscle.
  - Apply pressure to the brachial artery by pressing your fingers into this groove.

Bleeding of the LEG

- Locate the anterior, medial side of the leg where the thigh joins the lower trunk. The femoral artery has a pulse that can be felt at this position.
  - Use the heel of your hand to apply pressure to this site. Keep your arm straight, using your body weight to help apply pressure.
  - Need much more pressure than you would use to compress the brachial artery.

Controlling the Bleeding

Tourniquet

- ONLY USED IN MOST EXTREME MEASURES AS A LAST RESORT

1. Locate the site for the tourniquet. Between the wound and the patients heart.
2. A tourniquet pad should be placed on the site you have selected, over the artery. (roll of dressing, or folded piece of cloth.

Controlling the Bleeding

Tourniquet

3. Use a flat belt, necktie, stocking, or long dressing material.

- Rap the band around the patient's limb and tie a knot. The knot should be over the pad.
- A device such as a long stick, wooden dowel, or metal rod should then be inserted into the knot.
- Turn the device until the bleeding has stopped, NO FARTHER.

Controlling the Bleeding

Tourniquet

4. Once it is in place DO NOT LOOSEN - Tie or tape it in place
5. Attach a note to the patient stating that a tourniquet has been applied, and the time.
6. Deliver care for shock, but do not cover the tourniquet. Prevent it from being missed.

Internal Bleeding

- Some cases are so bad that the patient dies within minutes. Other cases take minutes to hours before death.
- Alert EMS
- Maintain open airway
- Care for shock
- Loosen restrictive clothing
- Be alert in case patient starts to vomit
- Apply pressure dressing if internal bleeding is in an extremity
- Notify EMS of internal bleeding upon arrival