Bleeding, soft tissue injuries and shock
• Bleeding is the escape of blood from the arteries, capillaries or veins and can occur internally or externally.

• Uncontrolled bleeding, whether internal or external, is life threatening.

• How much is too much to lose?? 2 pints is a critical loss
Introduction, cont.

• Blood is made up of liquid (plasma) and solid components (white and red blood cells and platelets). Blood functions to—
  • Transport oxygen, nutrients and wastes.
  • Protect against disease.
  • Maintain constant body temperature.

• Three major types of blood vessels
  ▪ Arteries
  ▪ Capillaries
  ▪ Veins.
External Bleeding

Each type of blood vessel bleeds differently.

- **Arterial bleeding** is rapid and, if severe, is life threatening. The blood is **bright red** in color.

- **Venous blood** is under less pressure and flows from the wound at a steady rate. The blood is **dark red** in color.

- **Capillary bleeding** is usually slow because the vessels are small. Blood oozes from the wound.
Care for External Bleeding

• Check-Call-Care

• Care:
  • Elevate the bleeding part
  • Apply direct pressure
  • Continue to monitor the airway and breathing.
Caring for External Bleeding

• Check-Call-Care

• Care:
  • Elevate the bleeding part
  • Apply direct pressure to the wound with a gloved hand
  • If bleeding is severe, lay the person down and elevate the site of bleeding
  • Remove any obvious debris or dirt from the wound
  • Don’t remove any object pierced into the victim.
• To apply pressure directly to the wound wear gloves and use a sterile dressing, clean cloth or even a piece of clothing. If nothing else is available, use your gloved hand.
• Maintain pressure until the bleeding stops. When it does, bind the wound tightly with adhesive tape or a bandage. If none is available, use a piece of clean clothing.
• If the bleeding continues and seeps through the gauze or other material you are holding on the wound, do not remove it. Instead, add more absorbent material on top of it.
• Immobilize the injured body part once the bleeding has been stopped. Leave the bandages in place and get the injured person to the emergency room as soon as possible or, if they cannot be moved, call 911
Internal bleeding

• The escape of blood from arteries, veins or capillaries into spaces within the body.

• Can occur from injuries caused by blunt force or a chronic medical condition.

• Can also occur when an object penetrates the skin and damages internal structures.

• You should suspect internal bleeding in any serious injury.
Signals of Internal Bleeding

- tender, swollen or hard abdomen
- Anxiety or restlessness.
- Rapid, weak pulse.
- Rapid breathing, shortness of breath.
- Cool, moist and pale, ashen or bluish skin.
- Bruising in the injured area.
- Nausea and vomiting or coughing up blood.
- Excessive thirst.
- A decreasing level of consciousness.
- Severe headache.
Care for Internal Bleeding

• Check-Call-Care

• Care:
  • For minor internal bleeding, such as bruising, apply ice.
  • If you suspect severe internal bleeding, call 9-1-1 immediately.
  • Then follow these general care steps to prevent shock:
    • Do no further harm.
    • Monitor signs of life and consciousness.
    • Help the victim rest comfortably.
    • Keep the victim warm
    • Reassure the victim.
    • Give any specific care needed.
Shock
• A progressive condition in which the circulatory system fails to circulate oxygen-rich blood to all parts of the body.
• When the body is unable to meet its demand for oxygen because blood fails to circulate adequately, shock occurs.
Causes of Shock

• Physical or psychological Trauma can cause shock.

• Other causes/Types of shock can include:
  ▫ Allergic reaction (Anaphylactic)
  ▫ Hemorrhage (hemorrhagic)
  ▫ Infection (septic)
  ▫ Heart attack (Cardiogenic)
  ▫ Poison (Toxic)
Signals of Shock

• Without intervention, the body’s failed attempt to compensate for blood loss eventually will result in death.

• Signals of shock include (very similar to internal bleeding signals)—
  • Restlessness or irritability.
  • Altered consciousness.
  • Pale or ashen, bluish, cool or moist skin.
  • Rapid breathing.
  • Rapid and weak pulse.
  • Excessive thirst.
  • Nausea and vomiting.
Care for Shock

• To care for shock—
  • Keep the victim calm
  • Keep the victim warm
  • Elevate the legs about 12 inches to help blood circulate to the vital organs.
    • Do not elevate the legs if —
      ▪ The victim is nauseated or having trouble breathing.
      ▪ You suspect head, neck or back injuries or possible broken bones.
      ▪ Moving causes more pain.
Other steps to care for shock

- Do not give the victim anything to eat or drink, even though he or she is likely to be thirsty.
- Control any external bleeding.
- Monitor the victim’s breathing and signs of life.
Soft tissue injuries/wounds

- A wound is an injury that damages the body’s tissues.
Types of open wounds

• Abrasion
• Incision
• Laceration
• Puncture
• Avulsion
• Amputation
Abrasion

• In this type of wound, the skin is scraped off.
• Bleeding is limited.
• Infection must be prevented due to contamination by dirt.
Incision

- A cut or injury caused by a sharp object such as a knife or razor.
- Edges of the wound are smooth and regular.
- Bleeding can be heavy.
- May damage muscles and nerves.
Laceration

- Tearing of the tissues by way of excessive force.
- The wound has jagged, irregular edges.
- Bleeding may be heavy.
- Wound may be contaminated leading to infection.
Puncture

- Caused by a sharp object such as a pin or nail.
- Limited external bleeding, but may bleed internally.
- Increased risk for infection, For ex: *tetanus*. 
Avulsion

- Tissue is torn or separated from the patient’s body.
- Bleeding is heavy and extensive.
- Preserve the avulsed body part for possible surgical reattachment.
Amputation

• Occurs when a body part is cut off and separated from the body.
• Bleeding is heavy and extensive.
• Preserve the body part in a cool, moist dressing (don’t place directly on ice).
Dressings and Bandages

• A dressing is a pad placed directly over a wound to absorb blood and other body fluids and to prevent infection.

• A bandage is any material used to wrap or cover any part of the body.
Dressings

- Dressings are used to:
  - stop bleeding
  - prevent infection
  - absorb secretions
  - treat pain

- Gauze pads are the most common materials used for dressings. However, in an emergency situation, any clean cloth can be used.
Bandages

• Bandages should be tight enough to control bleeding and to hold a dressing in place. However, they should not interrupt blood circulation.

• Three popular types of bandages are:
  ▫ Roller gauze
  ▫ Elastic
  ▫ Triangular
Dressings and Bandages (continued)

• To apply an elastic or roller gauze bandage—
  • Check feeling, warmth and color.
  • Secure the end of the bandage.
  • Do not cover fingers or toes.
  • If blood soaks through the dressings, do not remove them. Apply additional dressings and another bandage.
Types of Wound Bandaging

• Circular
• Spiral
• Figure-of Eight
• Cravat
Procedure for a Circular Bandage

In this lesson, you will learn and practice the procedure for a circular bandage.

Select the first video:

http://www.bing.com/videos/search?q=video+of+applying+a+circular+bandage&FORM=VIRE1#view=detail&mid=2D956803E9C69D86A8932D956803E9C69D86A893
Procedure for a Spiral Wrap Bandage

In this lesson, you will learn and practice the procedure for a spiral wrap bandage.

http://www.bing.com/videos/search?q=video+of+applying+a+circular+bandage&FORM=VIRE1#view=detail&mid=B4CE2B3A6841CCC582FEB4CE2B3A6841CCC582FE
Procedure for a Figure-Eight Ankle Wrap Bandage

In this lesson, you will learn and practice the procedure for a figure-eight ankle wrap bandage.

http://www.bing.com/videos/search?q=video+of+applying+a+figure+eight+bandage&FORM=VIRE1#view=detail&mid=AC538AF770F7C806EFAEAC538AF770F7C806EFAE
Head bandages and slings

• You may use a triangular bandage as a cravat for a head wound or to create a sling for an injured arm, wrist or shoulder.

• [Video Link](http://www.bing.com/videos/search?q=video+of+applying+a+triangular+bandage&qs=n&form=QBVR&pq=video+of+applying+a+triangular+bandage&sc=0-19&sp=-1&sk=#view=detail&mid=1A7051AEEB4A0B6B93F61A7051AEEB4A0B6B93F6)