Bleeding, Shock & Wounds Training

Sponsored by the

Morgan County Preparedness Project

Art Cucinotta, MCPP Training Director

Retired EMT Trainer & NJ Board-Certified Paramedic

Bleeding, Shock & Wounds Training

Assistant Instructor

Susan Cucinotta, Retired Emergency Room RN / EMT

Goals of Today's Training

To provide "Limited - Basic"

Bleeding – Shock – Wounds

First Aid Training for First Responders

Who are First Responders?

General Public • Police • Fire Personnel

What is the Tiered Emergency Medical System?

1. **General Public "First Responders"** (Limited Basic Life Support)
2. **Police & Fire Personnel "First Responders"** (Limited Basic Life Support)
3. **Emergency Medical Technicians** (Basic Life Support)
4. **Paramedics** (Advanced Life Support)
5. **Hospital Emergency Departments**

Special Note:

Morgan County is fortunate to have Emergency Medical Technicians (EMTs) & Paramedics responding on every emergency ambulance response.

Today's Training

- Learn & Practice "How to do a Physical Assessment"
- Learn about different "Types of Wounds"
- Discuss Blood Loss & Wound Care
- Learn how to "Stop Blood Loss"
- Learn & Practice "How to do Bandaging"
- Learn How to Recognize & "Treat for Shock"

Accomplishing a Physical Assessment

- Look for Obvious Signs of Bleeding
- Look at the Head & Neck (Scalp/Ears/Nose/Mouth/Eyes/Neck)
- Look & feel under clothing at both side of the Torso (Chest, Abdomen & Back)
- Look & feel the Upper Extremities (Arms & Hands)
- Look & feel the Lower Extremities (Legs & Feet)
- **“Let’s Practice”**

Types of Wounds

- Contusion
- Abrasion
- Puncture
- Laceration
- Avulsion
- Crushing
- Amputation

Contusion

- Contusions are a type of hematoma — any collection of blood outside a blood vessel.
- When you get a contusion, capillaries or blood vessels are injured, and blood leaks into the surrounding area.

Abrasion

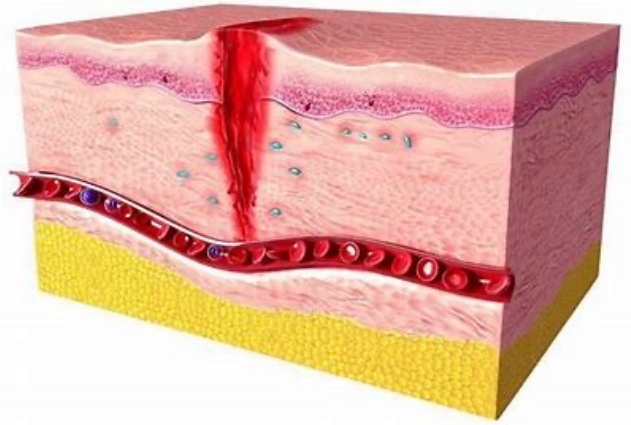
- An abrasion is an injury where your skin rubs off.
- It’s also known as a scrape.
- Abrasions cause pain, skin discoloration and light bleeding.

Puncture Wound

- A puncture wound is caused by an object piercing the skin and creating a small hole. Some punctures are surface level, while others can be very deep, depending on the source and cause.
- A puncture wound does not usually result in excessive bleeding. Usually, these wounds close fairly quickly without any intervention.

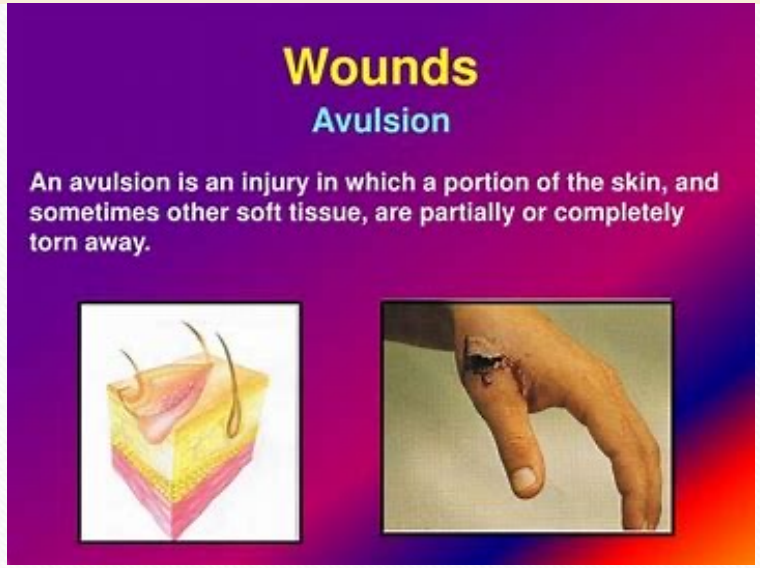
Laceration

- A laceration or cut refers to a skin wound.
- Unlike an abrasion, none of the skin is missing.
- A cut is typically thought of as a wound caused by a sharp object, like a shard of glass.



Avulsion

- Avulsion wounds of the skin are typically a severe, flap like type of skin injury.
- These wounds often require surgery to repair.



Crushing Wound

- A crush injury occurs when excessive force or pressure is put on a body part.
- This type of injury most often happens when part of the body is squeezed between two heavy objects.

Amputation

- Amputation means removal of a body part, like a limb.
- A limb amputation is a serious injury that may endanger the rest of your body if not treated.
- It’s not an easy injury to treat.

Treatment of Bleeding

- Cleansing the wound
- Stopping bleeding
- Immobilization
- Treating for shock

arterila bleeding

venous bleeding

capillary bleeding

Blood Loss

- Head Wounds Tend to Bleed a Lot
- You can be fooled by the amount of blood if mixed with water:
  - Outside - Puddle of Water or Raining
  - Inside Water Spill on Floor

Cleansing the Wound

- Wash your hands thoroughly with soap and water before touching the wound.
- Rinse the wound under running tap water or in the shower for 5 minutes to remove dirt and debris.
- Use a soft washcloth and mild soap to gently clean around the wound. Do not place soap or any irritating substance in the wound.
- Use tweezers sterilized with alcohol to remove any remaining dirt or debris. Do not pick at the wound.

Stop the Bleeding

- Direct pressure
- Compression bandage
- Elevation
- Pressure point
- Tourniquet (last resort)

Direct Pressure

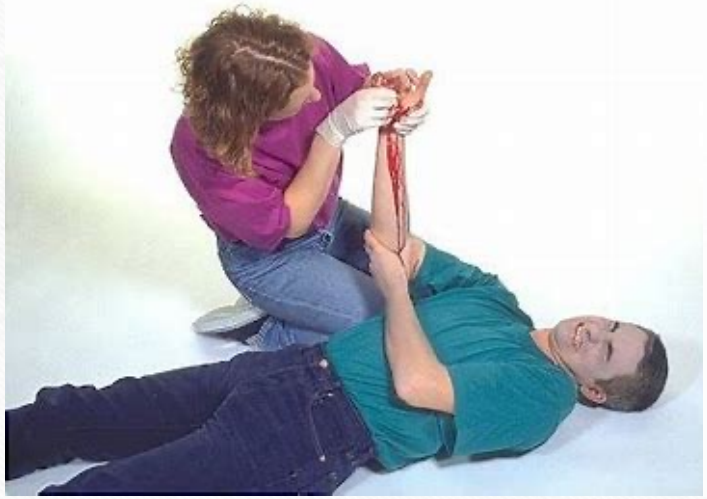
- Use a sterile gauze pad
- Apply direct pressure on wound

Compression Bandage

- Apply bandage
- Note the position of the roller gauze

Elevating Wound

- Elevate above the level of the heart.
- Gravity helps lower blood pressure; thus, bleeding is slowed.



Pressure Points

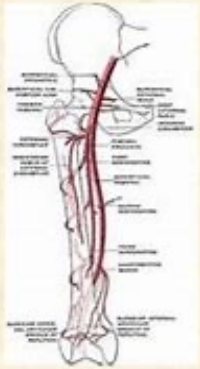
- Biracial artery in arm pit or elbow
- Femoral artery in groin area
- "Let's Practice"

Pressure on the Biracial Artery

- Press in with one or more fingers.

Pressure on Femoral Artery

- Place heel of hand directly over femoral artery (located between upper leg and pubic area), lean forward keeping arm straight and apply pressure.



Tourniquet

- Used in emergency situations to control life-threatening bleeding.
- Applied only if bleeding cannot be controlled by other methods.
- The Goal is to stop the Arterial Bleed.

Types of Bandages

- Roller gauze

- Cravat
  (Triangular folded bandage)
- Triangular Bandage

Applying a Sterile Gauze Pad

- Wash hands
- Open gauze package only touching corner of pad
- Applied directly over wound

Bandaging Head

- Anchor roller gauze after first wrap
- Goal is to cover gauze pad and control bleeding
- Secure with tape

Bandaging Eye

- Anchor roller gauze after first wrap
- Do not press on eyeball
- Goal is to cover gauze pad and control bleeding
- Secure with Tape
- “Let’s Practice”

Bandaging Hand or Wrist

- Anchor roller gauze after first wrap
- Goal is to cover gauze pad and control bleeding
- Secure with tape
- “Let’s Practice”

Bandaging Lower Arm

- Anchor roller gauze after first wrap
- Goal is to cover gauze pad and control bleeding
- A cravat can be used in place of the roller gauze
- Secure with tape

Bandaging Elbow

- Anchor roller gauze after first wrap
- Goal is to cover gauze pad and control bleeding
- A cravat can be used in place of the roller gauze
- Secure with tape

Bandaging Upper Arm

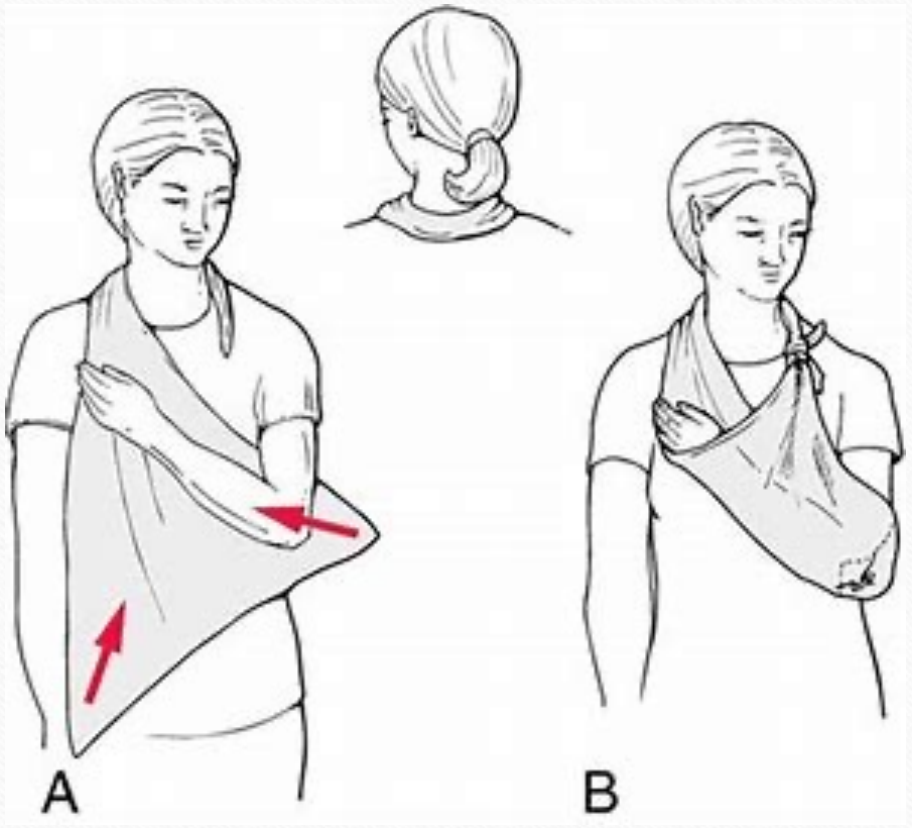
- Anchor roller gauze after first wrap
- Goal is to cover gauze pad and control bleeding
- Secure with tape

Immobilizing an Arm

- Once the bleeding has been controlled
- Immobilize using a triangular bandage
- A cravat can be used in place of the roller gauze

Applying Triangular Bandage

- Open up the cravat
- Place each end around neck
- Angle upper arm upwards
- Tie ends together
- Use safety pin to secure end by elbow (optional)
- “Let’s Practice”



Bandaging Torso
(front or back)

- A cravat or roller gauze can be used
- Secure a gauze pad directly with tape
- Goal is to cover gauze pad and control bleeding

Bandaging Upper Leg

- A cravat or roller gauze can be used
- Goal is to cover gauze pad and control bleeding
- Secure with tape

Bandaging Knee

- A cravat or roller gauze can be used
- Goal is to cover gauze pad and control bleeding
- Secure with tape
- “Let’s practice by using a cravat”

Bandaging Lower Leg

- A cravat or roller gauze can be used
- Goal is to cover gauze pad and control bleeding
- Secure with tape

Bandaging Ankle / Foot

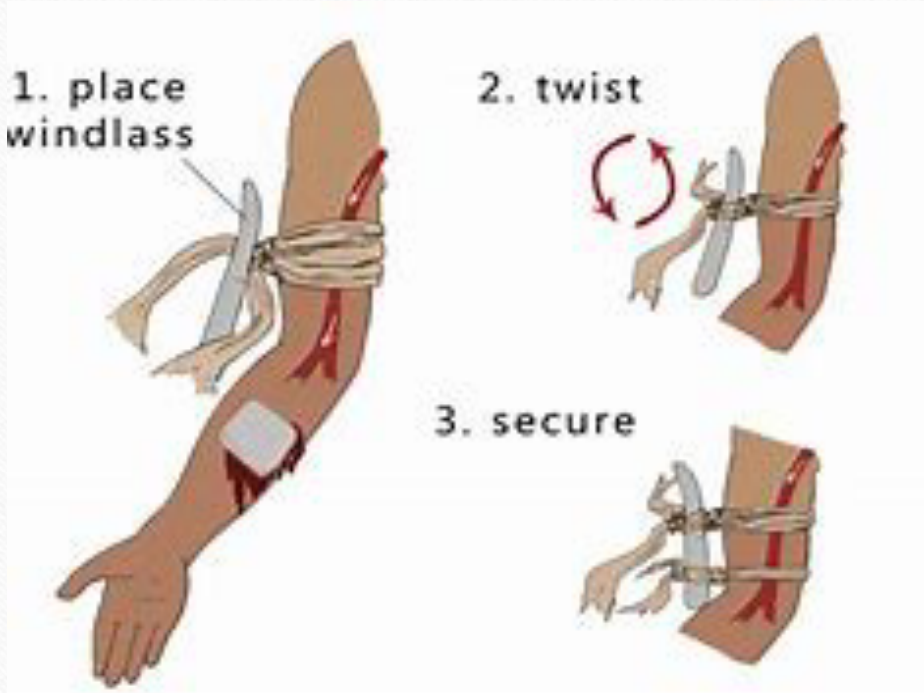
- Goal is to cover gauze pad and control bleeding
- Secure with tape
- “Let’s Practice”

Applying a Tourniquet

- Remove the clothing above the wound.
- Use a broad piece of fabric.
- Place the tourniquet high on the limb above the wound, but not over a joint .
- Wrap Tightly and Secure with a ½ Knot.

Applying a Tourniquet

- Use something “hard” as the windless (i.e. short stick/butter knife/screwdriver), not a pen.
- Twist until bleeding subsides.
- Tie the Windless off.
- Note the time it was applied.
- Once applied it should only be removed by a physician.



Let’s Practice

Types of Shock

- Neurogenic Shock is a distributive type of shock resulting in low blood pressure, often with slowed heart rate, caused by disruption of autonomic nervous system (Spine Injury).

- Cardiogenic Shock is a life-threatening condition in which your heart suddenly can't pump enough blood to meet your body's needs.

Types of Shock

- Anaphylactic Shock results from a severe allergic reaction (i.e. Bee Sting). It causes blood pressure to drop and narrows your airway, making breathing difficult.
- Septic Shock is the last and most severe stage of sepsis. Sepsis occurs when your immune system has an extreme reaction to an infection.
- Hemorrhagic Shock is a type of shock that's caused by heavy blood loss, which can be caused by internal or external bleeding.

Recognizing Hemorrhagic Shock

- Lower blood pressure (palpated?)
- Increased pulse & respirations
- Headache
- Dizziness
- Nausea
- Pale skin
- Shallow breathing
- Confusion
- Blue lips and/or fingertips
- Abdominal swelling
- Vomiting blood

Treating Hemorrhagic Shock

- Stop the bleeding
- Elevate legs (unless fractured)
- Keep patient warm

Summary

We learned “How to do a Physical Assessment”

We learned about different “Types of Wounds”

We discussed Blood Loss & Wound Care

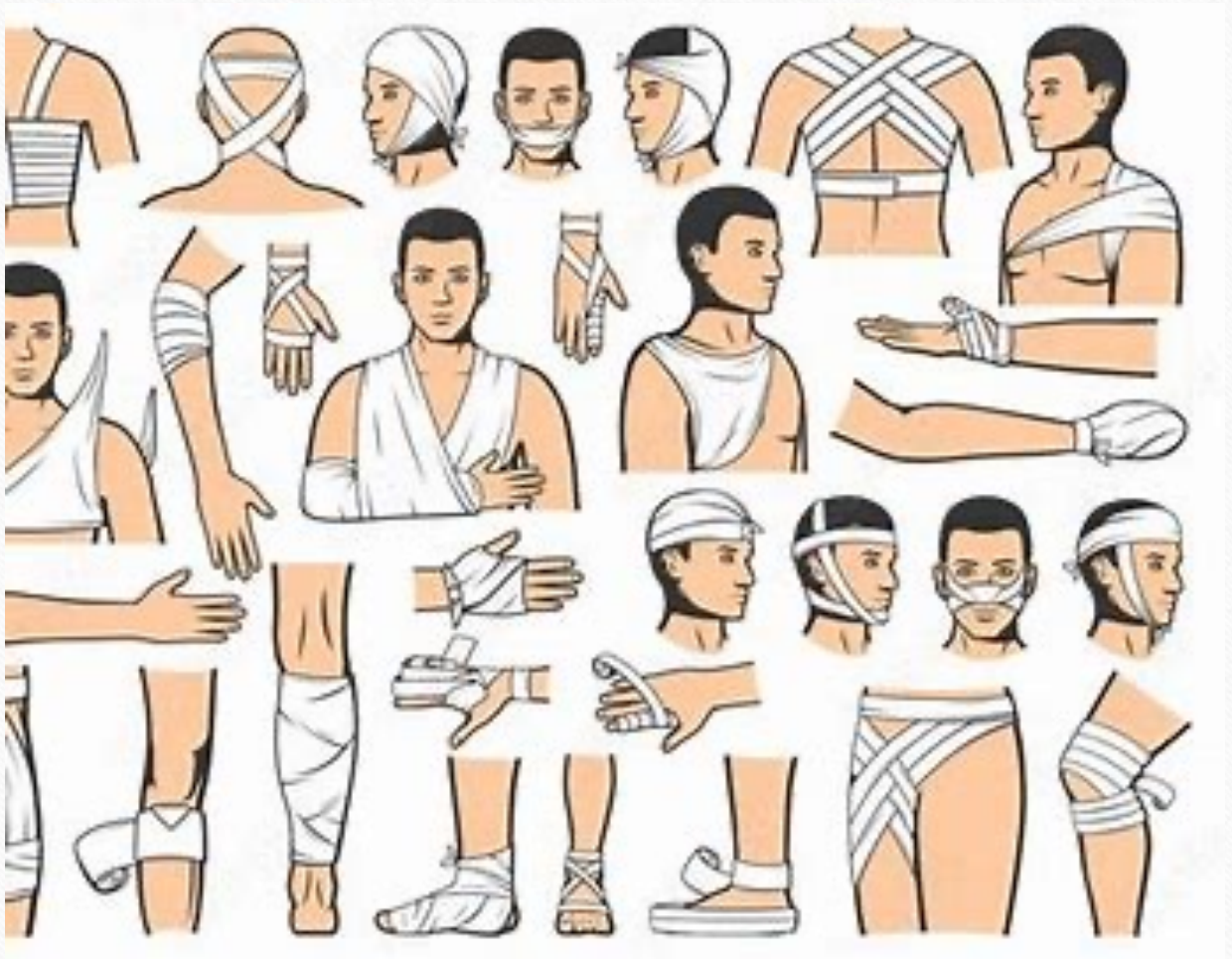
We learned how to “Stop Blood Loss”

We practiced “How to do Bandaging”

We learned How to Recognize & “Treat for Shock”

Types of Wounds

Types of Bandaging



Next Steps

- Consider purchasing or creating a First Aid Kit
- What do you feel are the important items to put in your first aid kit?

- Consider signing up for future Morgan County Preparation Project classes

Future Morgan County Preparedness Project Class Categories

- Communication
- Food, Water & Cooking
- Health & Wellness
- Home Preparedness
- Income & Economics
- Medical Training
- Outdoor Skills
- Personal Essentials
- Resources (Community, County, State, National)
- Home Security & Defense
- Shelter and Evacuation
- Vehicle Preparation and Mobility Kits

Future First Aid Classes

- Treatment of Fractures & Dislocations
- Treatment of Burns & Moving the Victim
- Treatment of Emergencies during a Disaster
- Maintaining and Airway & Circulation

Questions/Comments?