



JROTC Virtual Learning

LET 1 & 2/ Controlling Bleeding

April 17, 2020



Lesson: April 17, 2020

Objective/Learning Target:

Students will learn the importance of controlling bleeding and how to do it.

Student Learning Plan

Unit 4: Wellness, Fitness, and First Aid

Controlling Bleeding [U4C2L3]



What you will accomplish in this lesson:

Demonstrate first aid procedures for bleeding victims



Why this lesson is important:

In an accident situation, you may encounter injured persons bleeding from wounds such as scrapes, cuts, punctures, or gashes in the skin. The deeper a wound, the more serious it is. Mild wounds to the outer layer of skin do not bleed heavily but still require cleaning to avoid infection. Deeper wounds in which arteries and veins are cut can be life threatening. These kinds of wounds may involve great amounts of blood, and blood may often pulse, or spurt out of the wound. Severe bleeding, or hemorrhage, can result in shock or death if not treated promptly. Stopping the loss of blood in these cases is essential. If a victim loses too much blood, even CPR will not keep the person alive, because there will not be enough blood to deliver oxygen from the lungs to the body. In this learning plan, you will learn procedures for controlling bleeding.



What you will learn in this lesson:

- Identify the three types of bleeding
- Identify the best way to control most cases of bleeding
- Distinguish among direct pressure, pressure points, and a tourniquet to control bleeding
- Describe how to treat bleeding on the head or torso
- Explain the importance of following Universal Precautions when dealing with blood and other body fluids
- Define key words: arteries, dressing, elevated, hemorrhage, pressure bandage, pressure point, veins



You will have successfully met this lesson's purpose:

- by summarizing first aid for bleeding
- by providing first aid to bleeding victims in a simulated emergency
- when you evaluate the victim's status and diagnose the extent of injuries
- when you call for emergency help if appropriate
- when you apply Universal Precautions and infection prevention methods
- when you prioritize multiple bleeding victims for treatment if appropriate
- when you use the appropriate first aid steps for the circumstance



Learning Activities:

These learning activities are designed to help you learn the target skills and knowledge for this lesson. Your instructor may assign additional or alternative learning activities.

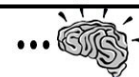
INQUIRE PHASE: What do you already know?



1. THINK ABOUT what you know about first aid for bleeding injuries. PREPARE for this lesson by discussing *What you will accomplish in this lesson; What you will learn in this lesson; Why this lesson is important*, and *When you will have successfully met this lesson's purpose*.
2. COMPLETE Exercise #1: Agree/Disagree on your own. REVIEW the correct answers with your class.
3. REFLECT on providing first aid to bleeding victims. ANSWER the reflection questions presented by your instructor.

GATHER PHASE: So, what else do you need to know or learn?


- Part 1**
- _____ 1. VIEW the presentation about the different types of bleeding.
 - _____ 2. VIEW the presentation about providing first aid for bleeding victims. CREATE How-To cards for the first aid steps to treat bleeding.
 - _____ 3. REFLECT on the steps to help bleeding victims. ANSWER the reflection questions presented by your instructor.
- Part 2**
- _____ 4. VIEW the presentation about pressure points.
 - _____ 5. VIEW the presentation about treating head and torso injuries. CREATE How-To cards for the first aid steps to treat these types of injuries. INCLUDE information about pressure points on the How-To cards you created on first aid for bleeding.
 - _____ 6. REFLECT on the different types of bleeding emergencies you may encounter. ANSWER the reflection questions presented by your instructor.

PROCESS PHASE: Now what can you do with this new information you've learned?


- Part 1**
- _____ 1. With a partner, PRACTICE giving first aid to a bleeding victim. LISTEN to the prompts from your instructor.
 - _____ 2. REFLECT on your first aid skills for bleeding victims. ANSWER the reflection questions presented by your instructor.
- Part 2**
- _____ 3. **Option 1:** Play the CERT-Alert Bleeding Basic game using your clicker, or **Option 2:** Complete Exercise #2 First Aid Scenarios.
 - _____ 4. REFLECT on how you would handle an unexpected first aid situation. ANSWER the reflection questions presented by your instructor.


Assessment Activities:

APPLY PHASE: What else can you do with what you've learned today?


- _____ 1. COMPLETE the Controlling Bleeding Performance Assessment Task. SUBMIT your completed performance assessment task to your instructor for feedback and a grade.
- _____ 2. REVIEW the key words of this lesson.
- _____ 3. REFLECT on what you have learned in this lesson and how you might use it in the future.


Self-Paced Learning and Assessment Activities:

Independently complete the activities outlined below:

1. **Inquire Phase:** Complete the Learning Activities 1 – 3 or as modified by your instructor.
2. **Gather Phase:** Complete the Learning Activities 1 – 6 or as modified by your instructor.
3. **Process Phase:** Complete the Learning Activities 1 – 4 or as modified by your instructor.
4. **Apply Phase:** Complete the Learning Activities 1 – 3 or as modified by your instructor.



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U4C2L3

Controlling Bleeding

Key Words:

Arteries

Dressing

Elevated

Hemorrhage

Pressure Bandage

Pressure Points

Veins

What You Will Learn to Do

Determine first aid procedures for bleeding victim

Linked Core Abilities

- Do your share as a good citizen in your school, community, country, and the world.

Skills and Knowledge You Will Gain Along the Way

- Identify the three types of bleeding
- Identify the best way to control most cases of bleeding
- Distinguish among direct pressure, pressure points and a tourniquet to control bleeding
- Describe how to clean wounds
- Explain the importance of following Universal Precautions when dealing with blood and other body fluids

Introduction

In an accident situation, you may encounter injured persons bleeding from wounds such as scrapes, cuts, punctures, tears, or gashes in the skin. The deeper a wound goes, the more serious it is. Mild wounds to the outer layer of skin do not bleed heavily, but still require cleaning to avoid infection. Deeper wounds, in which **arteries** and **veins** are cut, can be life-threatening. These kinds of wounds may involve great amounts of blood loss, with blood often pulsing or spurting out of the wound. Severe bleeding, or **hemorrhage**, can result in shock or death if not treated promptly. Stopping the loss of blood in these cases is essential. If a victim loses too much blood, even Cardiopulmonary Resuscitation (CPR) will not keep the person alive, because there will not be enough blood to deliver oxygen from the lungs to the body.

Types of Bleeding

There are three types of bleeding:

- **Arterial bleeding** is the loss of blood from an artery. Characterized by bright red blood that spurts with each heartbeat, arterial blood loss is severe and hard to control. Give it first priority for treatment. Bleeding from injured arteries is generally more serious and more likely with deep injuries. This bleeding needs to be controlled immediately.

- **Venous bleeding** is blood loss from a vein. Venous bleeding is characterized by a steady flow of dark blood. Bleeding from injured **veins** is generally slow and steady, but can still be serious. The dark red blood flows steadily, rather than spurting. This bleeding is usually easier to control.

- **Capillary bleeding** is the loss of blood from the smallest blood vessels, the capillaries, and is usually characterized by a slow flow of blood. Capillary bleeding occurs with shallow cuts or scrapes. The bleeding stops fairly quickly. However, the wound still requires cleaning to prevent infection.



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Bleeding from injured **veins** is generally slow and steady, but can still be serious. The dark red blood flows steadily, rather than spurting. This bleeding is usually easier to control.

First aid treatment in all of these cases includes stopping the flow of blood and preventing infection.



You should note that serious injuries don't always bleed heavily, while some relatively minor injuries, such as scalp wounds, can bleed quite a lot. People who take blood-thinning medication or who have a bleeding disorder, such as hemophilia, may bleed profusely because their blood does not clot properly. Bleeding injuries in these situations require immediate medical attention.

Direct Pressure

In most cases, applying continuous, direct pressure to a wound is the best way to control bleeding. To apply direct pressure, place a **dressing** over the wound. A dressing should be:

- Sterile. If a sterile dressing is not available, use a clean cloth, such as a washcloth, towel, or handkerchief.
- Larger than the wound
- Thick, soft and compressible so pressure is evenly distributed over the wound
- Lint free

If a clean cloth or gauze is not available, use clothing or your bare hands or fingers — whatever is the cleanest. Continue applying pressure and bleeding should begin to slow or stop within 30 minutes.



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Stopping Infection

Even the slightest wound requires immediate cleansing. The best way to clean wounds is to wash them with soap and water. At home, use water from the faucet. On a hike, use water from a canteen or the clear running water of a stream. If available, use an antiseptic cleanser instead of soap. Wait until the skin around the wound dries, then put on a bandage. If available, apply an antiseptic cream to the wound before bandaging it.

For a minor wound, cleaning and bandaging is probably all that is required. Deep wounds, wounds made by animal or human bites, and wounds contaminated by dirt, rust, or other items, require medical treatment. Clean and bandage these wounds and seek medical assistance as soon as possible. If a wound contains glass or other objects stuck into the flesh, do not remove them unless they wash out of the wound easily.

Controlling Bleeding to Extremities

In most cases, direct pressure is the best way to stop bleeding of wounds to the extremities. As you apply direct pressure, keep the injured limb **elevated** above the heart to slow the flow of blood out of the body.

After initially applying direct pressure, you should apply a **pressure bandage**. Do this by applying a bandage snugly, using overlapping turns with a roll of gauze. Do not tie the pressure bandage so tightly that it restricts blood flow to the lower part of the limb. If fingertips or toes appear bluish, or if there is no pulse below the dressing, loosen the material used to secure the dressing immediately. Once you apply a pressure bandage, only qualified medical personnel should remove it.

Steps for Tending a Bleeding Victim

Let's go over a few helpful first aid tips that you should always practice when tending to a bleeding victim. When you see bleeding from a wound, blood on a victim, or signs of shock, such as pale, clammy skin, take the following steps:

Step 1: Put on medical gloves or use some type of barrier to protect yourself from contact with the victim's blood.



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Step 2: Move aside any clothing and place a sterile dressing, or clean cloth, on the wound. Then apply direct pressure on the wound with your hand.

Step 2.



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Step 3: With a bleeding arm or leg, raise the limb above the heart level while keeping pressure on the wound. Be careful moving the victim because of the possibility of other injuries.

Step 3.



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Step 4: If blood soaks through the dressing, do not remove the old dressing. Instead, put another dressing or cloth pad on top of it and keep applying pressure.

Step 4.



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Step 5: If possible, wrap a roller bandage around the limb to hold the dressings in place and apply direct pressure. If direct pressure does not control the bleeding, also apply indirect pressure at a pressure point in the arm or leg to squeeze the artery closed.

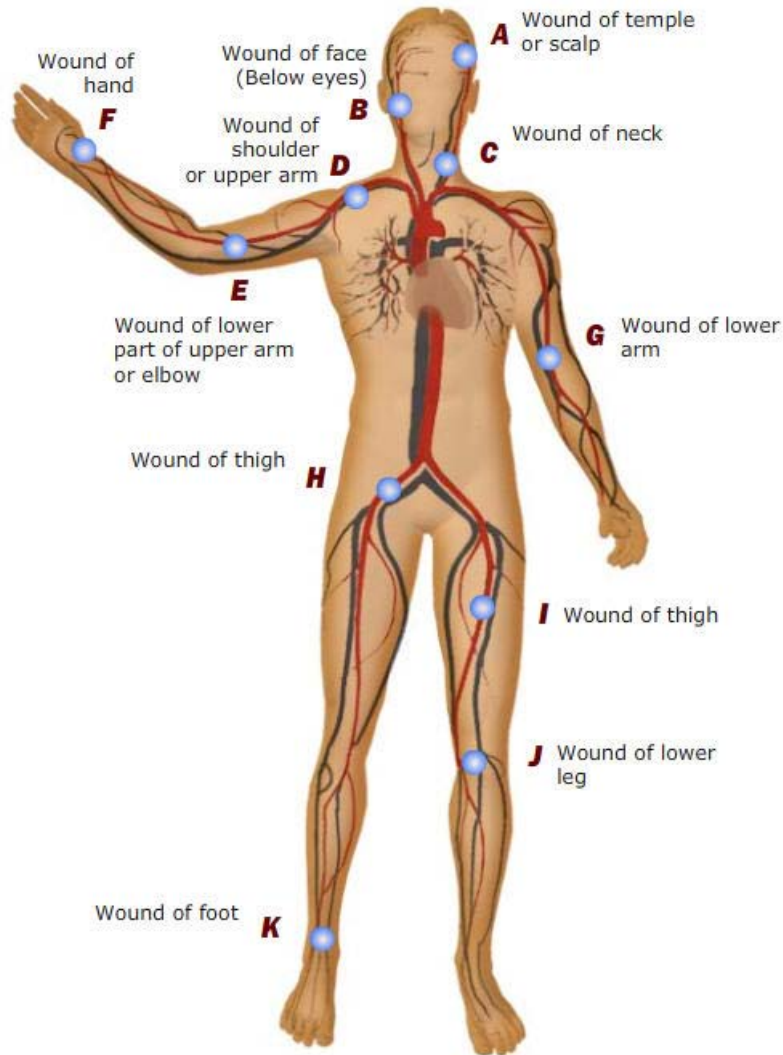
Step 5.



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Pressure Points

In case of severe bleeding that does not slow or stop using direct pressure, finger pressure may be applied to the **pressure point** on the injured limb between the wound and the heart. Pressure points are locations on the body where arteries are close to the surface. By applying pressure at these points, you slow or stop the flow of blood through the artery.



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Note:

The use of pressure points should not be used unless the technique is absolutely necessary to help stop severe bleeding.

Indirect Pressure

When using indirect pressure, squeeze the main artery in these areas against the bone. Keep your fingers flat. With your other hand, continue to exert pressure on the wound itself. To check if bleeding has stopped, release your fingers slowly from the pressure point, but do not release pressure at the bleeding site. If the bleeding continues, continue to apply pressure to the artery until the bleeding stops or help arrives. After bleeding stops, do not continue to apply pressure to an artery for longer than 5 minutes.



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If heavy blood loss continues, as from amputation, it may be necessary to use a tourniquet. Caution: Since a tourniquet is a constricting band that **stops** the flow of blood below it, it can kill the limb to which it is applied. Therefore, **only use a tourniquet if no other method works to stop the bleeding and you believe the injured person's life is in danger**. To apply a tourniquet:

1. Fold a cloth until it is approximately two inches wide and long enough to go around the injured limb.
2. Tie the material in a loop and position it two to four inches above the wound, but not over a joint.
3. Pass a rigid object, such as a stick, under the tourniquet loop and twist it until the bleeding stops.
4. Tie off the end of the stick with another piece of cloth or string to prevent it from unwinding.
5. Mark the victim's forehead with a "T" to alert medical personnel that you have applied a tourniquet.

If it is necessary to cover the victim with a blanket, do not cover the tourniquet to make it easier for medical personnel to spot. Once you apply a tourniquet, do not loosen or remove it. As with a pressure dressing, only qualified medical personnel should remove a tourniquet. **Remember, use a tourniquet only as a last resort when all other attempts to stop the bleeding fail.**

Controlling Bleeding to the Head and Torso

Scalp Injuries

For wounds to the scalp, use a pressure dressing. If brain tissue is exposed, tie the dressing loosely over the wound. Do not press the brain tissue back into the open wound.



Chest Injuries

A chest injury may result in an open chest wound, which could lead to air leaking from a lung and the collapse of a lung. If conscious, have the victim breathe out and apply some material such as plastic wrap or foil to the wound. Bind a pressure bandage tightly to the wound to prevent leakage of air and slow down blood loss. Have the victim sit up, if possible, or lay that person on the injured side.



Facial Injuries

Control bleeding from facial wounds by using a pressure bandage. Position the victim to prevent him or her from breathing blood. Victims who have sustained a severe blow to the head should be kept under close observation as they may have brain damage and could require rescue breathing.



Abdominal Injuries

When an open abdominal wound has exposed visceral (internal) organs, cover the abdomen loosely with dressings. Do not force the organs back into the body cavity and do not give victims with abdominal wounds any food or water.



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Conclusion

Severe bleeding from wounds in which arteries or veins are cut can be life-threatening to an injured person. Therefore, controlling the loss of blood is second in importance only to restoring breathing and circulation. In most cases, applying direct pressure to a wound is the best way to control bleeding. Cleansing a wound to stop infection is also extremely important. If you know these two facts, and the other details on controlling bleeding to the extremities, head, and torso, you can successfully accomplish the second life-saving step in an emergency situation.



Lesson Check-up

1. Describe how to treat arterial bleeding?
2. When should a tourniquet be applied?
3. Detail the five steps for tending a bleeding person?
4. Describe the proper way to clean a wound and why it is important?

Performance Assessment Task

Unit 4: Wellness, Fitness, and First Aid

Controlling Bleeding [U4C2L3]

This performance assessment task gives you an opportunity to document your achievement of the lesson's competency:

Demonstrate first aid procedures for bleeding victims



Directions

For this performance assessment task, you will demonstrate your ability to provide first aid to bleeding victims. For this assessment you will:

1. Complete your How-To cards for this lesson: Provide First Aid for Bleeding, Use Pressure Points, and Provide First Aid for Bleeding Injuries to the Head or Torso.
2. Navigate through a simulated emergency situation that will require you to assess the emergency, diagnose injuries, prioritize victims, and provide appropriate first aid treatment. You will have to assess the situation and diagnose the injuries before providing first aid treatment. You will be evaluated in accordance with the criteria listed in the scoring guide. If you do not meet the required performance criteria, you may review the lesson content on the distance learning platform and re-take this assessment at a later date.
3. Use the attached scoring guide criteria for what you need to do to complete this task.
4. Submit your completed performance assessment task and scoring guide to your instructor for evaluation and a grade.

RECOMMENDATION: It is recommended that you add this performance assessment task to your Cadet Portfolio.

Directions to Instructor:

The scenario is of accident scene with one or two victims. Cadets will have to assess the scene that should contain one conscious victim and one unconscious victim. The conscious victim can communicate by asking for help. The injuries on the unconscious victim should be more severe so that proper assessment of the situation should be performed (the Cadet should choose to treat the unconscious victim first). After taking Universal Precautions, the Cadet should have to diagnose the type of bleeding problem with the unconscious victim, determine the type of bleeding, and select the proper treatment (pressure points, pressure and elevation, or pressure bandage). Throughout this treatment, the less-injured victim will be asking for help, requiring the student to reassure the victim that s/he will be okay and requiring the Cadet to reassure the victim that s/he will be okay and to ensure the victim does not go into shock.

This assessment task may be performed in a hands-on classroom or computer-based simulation. Provide the Cadet a copy of this assessment task and scoring guide prior to the assessment for review of the performance criteria. Allow the Cadet to read the directions and scenario, and inform him/her that you will be assessing their performance using the scoring guide.

NOTE: If you use other Cadets as victims, you should brief them on their roles including how they are injured, how much help information they can provide, etc.

Controlling Bleeding Performance Assessment Task Scoring Guide

Criteria	Ratings	
1. Your three How-To cards for this lesson are complete and accurate	met	not met
2. You evaluate the victim's status and diagnose the extent of injuries	met	not met
3. You call for emergency help, if appropriate	met	not met
4. You apply Universal Precautions and infection prevention methods	met	not met
5. You prioritize multiple bleeding victims for treatment, if appropriate	met	not met
6. You use the appropriate first aid steps for the circumstance	met	not met

Comments:

Name: _____ **Date:** _____

Evaluator's Signature: _____ **Date:** _____