

LESSON PLAN
CONTROLLING SEVERE BLEEDING
(Second Class Requirement 6a)
(30 Minutes)

MATERIALS REQUIRED

Example of a trauma dressing
Pressure point handout

Example of clotting agent

INTRODUCTION

We have all heard the old joke, “I can’t stand the sight of blood, especially my own.” It may be a joke, but there is a lot of truth in it. Most people rarely see any cases of severe bleeding. When they do, it often causes a sense of panic, confusion, and revulsion. When it is their own blood, the results are that much worse.

PURPOSE AND MAIN IDEAS

The purpose of this period of instruction is to familiarize you with the importance of controlling severe bleeding, and the methods for doing so.

We will do this by covering:

- The circulatory system,
- Types of severe bleeding,
- Effects of severe bleeding on the body,
- Methods for controlling severe bleeding.

Upon completion of this period of instruction you will:

1. Understand the basic functioning of the circulatory system.
2. Be able to recognize the types of bleeding.
3. Understand the effects of severe bleeding on the body.
4. Be able to employ various methods to control severe bleeding.

BODY

1st Main Idea: The Circulatory System

The circulatory system consists of the heart, blood, and blood vessels.

- The heart is a pressure pump that forces blood into the arteries.

- Blood is a fluid that helps protect the body from disease, maintains constant body temperature, and transports oxygen and nutrients to the cells, and waste material from the cells.
- There are three types of blood vessels:
 1. Arteries are large vessels that carry blood away from the heart.
 2. Veins are large vessels that carry blood back to the heart.
 3. Capillaries form a network of smaller vessels between the arteries and the veins. It is in the capillaries that the exchange of oxygen, nutrients, and waste materials between the blood and the cells occurs.

2nd Main Idea: Recognizing the Types of Bleeding

Being able to recognize the type of bleeding is important in selecting the best method to control the bleeding.

- Capillary blood is usually brick red in color. If capillaries are cut, the blood oozes out slowly. The exception to this is the scalp wound, which typically bleeds profusely.
- Blood from veins is dark red. When a vein is cut, the wound bleeds in a steady, even flow.
- If an artery near the surface is cut, the blood gushes out in spurts in time with the heartbeat. However, if the cut artery is deeply buried, the bleeding will appear to be a steady stream. Arterial blood is usually bright red in color.
- In cases of severe wounds and multiple wounds, all three types of bleeding may be present.

3rd Main Idea: Effects of Severe Bleeding on the Body

Hemorrhage (escape of blood) occurs whenever there is a break in the wall of one or more blood vessels. Bleeding severe enough to endanger life seldom occurs except when arteries or veins are cut. However, individuals react differently to the sight of their own blood, so even capillary bleeding can cause a person to go into shock.

- The average adult has about 5 quarts of blood in his or her body.
- The loss of up to one pint (the amount usually given by blood donors) generally won't cause harm.
- Losing two pints of blood almost always causes shock, and the more blood lost the greater the shock.
- The smaller the body, the less blood loss it can tolerate.

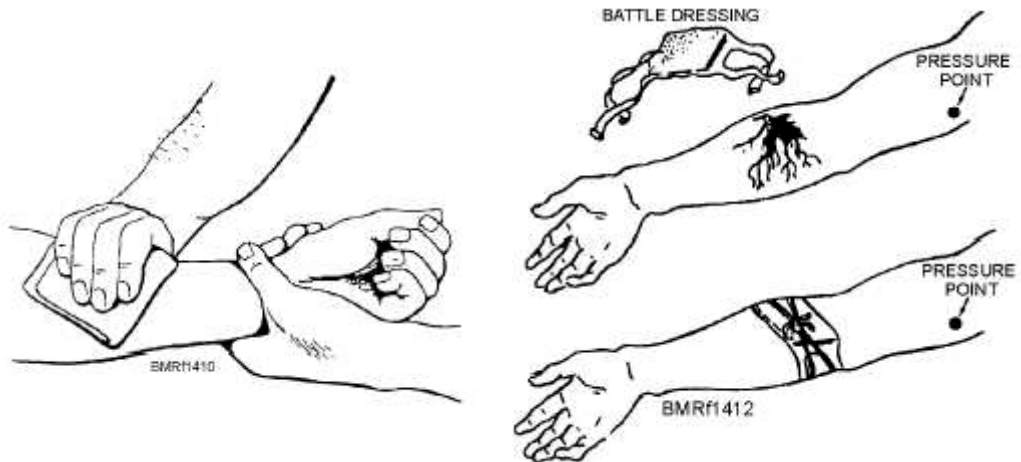
How the Body Reacts to Severe Bleeding.

- Brain, heart, and lungs attempt to compensate for blood loss.
- Brain signals heart to beat faster to circulate more blood. It signals capillaries to constrict blood vessels in extremities, and it signals for an increase in respiratory rate.

4th Main Idea: Methods of Controlling Severe Bleeding

Severe bleeding is stopped by applying pressure. Pressure compresses the blood vessel, making it easier for natural clotting to occur.

- Apply direct pressure to the wound. Place a trauma (battle) dressing over the wound and fasten it firmly in place with a bandage, then elevate the wound if possible. If the bleeding doesn't stop, secure another dressing over the first, or apply direct pressure with your hand.



- If the application of direct pressure does not stop the bleeding, apply pressure to the nearest pressure point between the wound and the heart (see attached diagram). A pressure point is a place where the main artery to the injured part lies near the skin surface over a bone. The object of applying pressure to the pressure point is to compress the artery against the bone, shutting off the flow of blood.

NOTE: Applying finger pressure is very tiring and usually can't be maintained for more than about 15 minutes.

- If the bleeding still does not stop, apply a clotting agent (if it is available) directly to the wound and rebandage the wound.
- If conventional trauma pads are not available, women's sanitary napkins or tampons make excellent substitutes.
- Once the bleeding has been controlled, treat the patient for shock.

SUMMARY

- The circulatory system consists of the heart, blood, and blood vessels.
- Arteries carry blood from the heart, veins return blood to the heart, and capillaries connect the two.
- Capillary bleeding oozes, venous bleeding is steady, arterial bleeding spurts.
- The smaller the body, the less blood loss it can tolerate.
- Shock is just as dangerous as the loss of blood.
- Severe bleeding is stopped by applying pressure and dressings to the wound, applying pressure on pressure points, and as a last resort if it is available, applying clotting agent to the wound.

QUESTIONS FROM THE CLASS

QUESTIONS TO THE CLASS

1. What are the three types of blood vessels?

Arteries, veins, and capillaries.

2. Under what conditions is bleeding severe enough to endanger life?

Whenever a vein or artery is cut (from blood loss) or any time there is copious bleeding (from shock).

3. How much blood loss typically results in shock in an adult?

Two pints.

4. What are the characteristics of:

- a. Capillary bleeding? Brick red, oozing.
- b. Venous bleeding? Dark red, steady.
- c. Arterial bleeding? Bright red, spurting.

5. How do you stop severe bleeding?

Applying direct pressure and bandaging to the wound, applying pressure at the appropriate pressure point, or by applying clotting agent to the wound.

