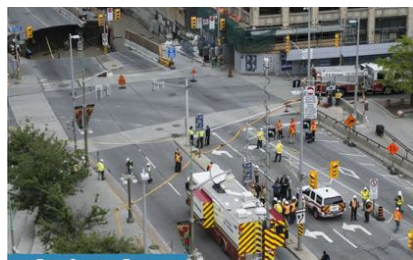


Emergency Medical Responder: A Skills Approach

Fifth Canadian Edition



FIFTH CANADIAN EDITION

EMERGENCY MEDICAL RESPONDER

A SKILLS APPROACH

MEETS PARAMEDIC ASSOCIATION OF CANADA'S NATIONAL OCCUPATIONAL COMPETENCY PROFILE



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19 - 1

Chapter 19

Bleeding and Shock

Objectives (1 of 3)

- Explain the rationale for BSI precautions when dealing with bleeding and soft-tissue injuries.
- State the emergency medical care for external arterial, venous, and capillary bleeding, including direct pressure and pressure points.
- Explain when a splint or tourniquet should be used to stop bleeding.
- Describe emergency medical care of a patient with a nosebleed.



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19 - 2

Objectives (2 of 3)

- List the nine signs and symptoms of internal bleeding, and describe the steps involved in its emergency medical care.
- List the three causes of shock and the signs and symptoms of each stage of shock: compensated, decompensated, and irreversible.
- Outline the emergency medical care of a patient in shock.

Objectives (3 of 3)

- Outline the emergency medical care of a patient in shock.
- Identify the signs and symptoms (skin, respiratory, circulatory, and general) of a patient experiencing anaphylactic shock, and describe his or her emergency medical care.
- Demonstrate a caring attitude toward the patient and family when dealing with bleeding or shock, while giving priority to the interests of the patient.

Protecting Against Infection–BSI

Precautions (1 of 2)

- Keep a barrier between you and the patient's blood and other body fluids
- Wear approved goggles, mask, and gown if there is spurting or splashing blood or the potential for it
- Never touch your mouth or nose, while you are giving emergency care

Protecting Against Infection–BSI

Precautions (2 of 2)

- Keep patient's wounds covered with dressings
- Wash hands properly
- Decontaminate or properly dispose of items that have contacted patient's blood or body fluids

Distribution of Blood in the Body

Heart	3 %
Capillaries	7 %
Arteries	11 %
Pulmonary	18 %
Veins	61 %

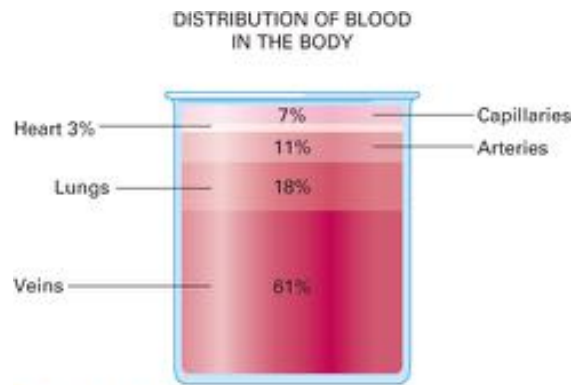


Figure 19-1 Distribution of blood in the body.

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Pop Quiz

How many litres of blood does the human body contain?

Figure 19–2 The Four Stages of Blood Loss

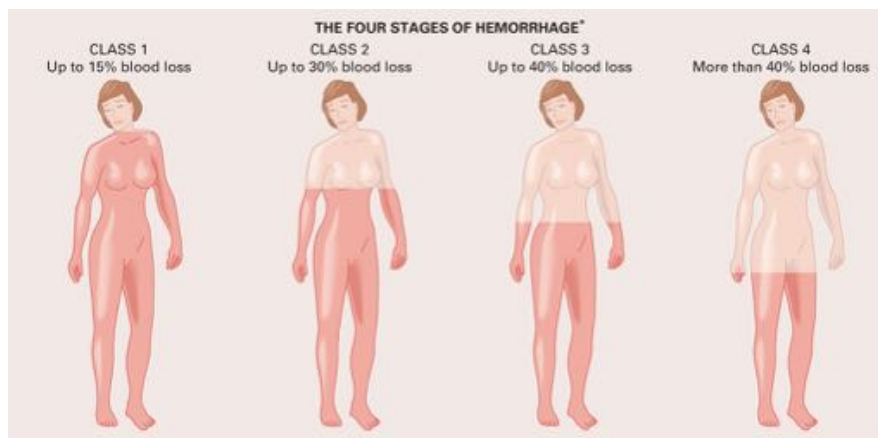


Figure 19–2 The four stages of blood loss.

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19 - 9

Hemorrhage

Severe bleeding depends on

- Size of blood vessel and how fast it is bleeding
- Whether blood is flowing from an artery or vein
- Whether bleeding is external or internal
- Whether bleeding is a threat to respirations
- Patient's weight, age, and general physical condition



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19 - 10

Types of Hemorrhage

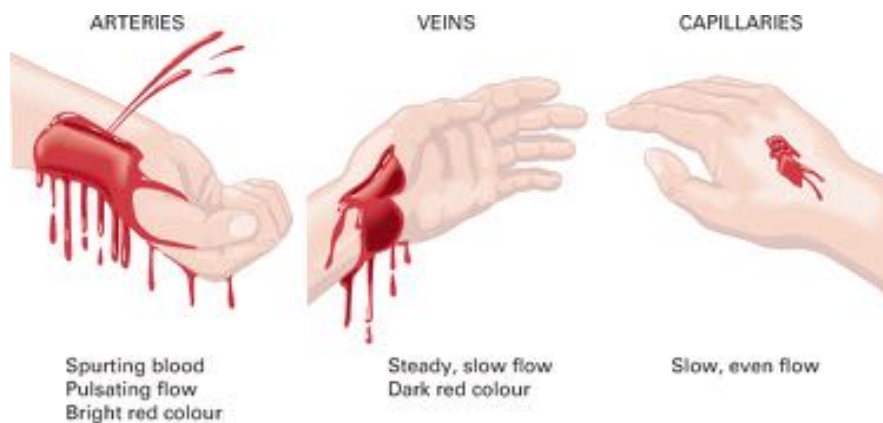


Figure 19-3 Types of external bleeding.

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Method of Bleeding Control (1 of 2)



Figure 19-5a Apply direct pressure.

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Figure 19-5b Position the patient at rest.

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19 - 12

Method of Bleeding Control (2 of 2)



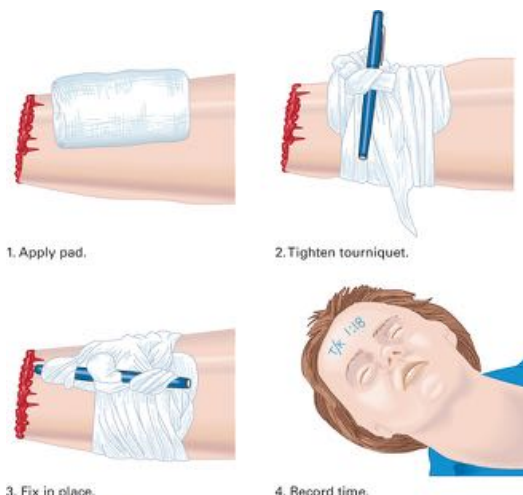
Figure 19-5c Assess bleeding and apply additional pressure if needed.

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Other Bleeding Control Methods

- Splints
- Tourniquets

Tourniquet Application



1. Apply pad.

2. Tighten tourniquet.

3. Fix in place.

4. Record time.

Figure 19-8a Method of applying a tourniquet.

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19 - 15

Causes of Internal Bleeding

- Blunt trauma
- Abnormal clotting
- Blood vessel rupture
- Fracture, etc



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19 - 16

Signs and Symptoms of Internal Bleeding (1 of 2)

- Discoloured, tender, swollen, or hard tissue
- Increased respiratory and pulse rates
- Pale, cool, clammy skin
- Nausea and vomiting bright red blood or blood the colour of dark ground coffee

Signs and Symptoms of Internal Bleeding (2 of 2)

- Thirst
- Changes in mental status
- Dark, tarry stools
- Tender, rigid, or distended abdomen
- Weakness, faintness, or dizziness

Emergency Care

Take BSI precautions and then

- Maintain open airway and adequate breathing
- Control any external bleeding
- Keep patient warm
- Treat for shock

SHOCK

Shock

Shock, or hypoperfusion, is a condition that results from the inadequate supply of **oxygenated** blood.

Causes of Shock

- Failure of the heart
- Abnormal dilation of the blood vessels
- Blood volume loss

Stages of Shock (1 of 3)

- Compensated



Figure 19-12a Compensated shock: slight increase in pulse.

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Figure 19-12b Compensated shock: restlessness or anxiety.

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Stages of Shock (2 of 3)

- Decompensated



Figure 19-12c Decompensated shock: rapid, weak pulse.

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Figure 19-12d Decompensated shock: skin colour changes and sweating.

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Stages of Shock (3 of 3)

- Irreversible



Figure 19-12e Decompensated shock: decreasing blood pressure.

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Figure 19-12f Decompensated shock: unconsciousness.

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Emergency Care

After taking BSI precautions

- Maintain open airway
- Prevent further blood loss
- Place at rest in the shock position
- Keep patient warm
- Provide care for specific injuries while waiting for paramedics