First Responder Workbook

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The Canadian Red Cross Society (CRCS) has made reasonable efforts to ensure the contents of this publication are accurate and reflect the latest scientific research available on the topic as of the date published. The information contained in this publication may change as new scientific research becomes available. Certain techniques described in this publication are designed for use in lifesaving situations. However, the CRCS cannot guarantee that the use of such techniques will prevent personal injury or loss of life.

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The Professional Responder

For Your Review

Read Chapter 1 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Abandonment:

Confidentiality:

Consent:

Critical Incident Stress (CIS):

Duty to act:

Emergency medical responder (EMR):

Emergency medical services (EMS) system:

First responder:

Good Samaritan laws:

Interpersonal communication:

Medical terminology:

Negligence:

Offline medical control:

Online medical control:

Post-Traumatic Stress Disorder (PTSD):

Refusal of care:

Standard of care:

What Would You Do?

Read the following scenario and answer the questions below.

While you are driving to work one morning, you see that someone has fallen off his bicycle and seems to be bleeding from his leg quite severely. As you get closer, you notice that the bike is badly damaged, and the person has cuts and scrapes all over him.

1. **In this situation, do you have a duty to act? If so, why? If not, why not?**

2. **If you do act in this situation, your first concern should be to:**
   - ☐ a. Bandage the wounds
   - ☐ b. Determine whether there are any other injuries you can't see
   - ☐ c. Ensure your safety and the safety of any bystanders
   - ☐ d. Call work and tell them you will be late

3. **What types of hazards may be present? What can you do to protect yourself from these?**

Test Your Knowledge

1. **Which of these is not a level recognized by the Paramedic Association of Canada?**
   - ☐ a. Primary Care Paramedic
   - ☐ b. Initial Care Paramedic
   - ☐ c. Critical Care Paramedic
   - ☐ d. Emergency Medical Responder

2. **List six signs and symptoms of critical incident stress:**
   - i. _____
   - ii. _____
   - iii. _____
   - iv. _____
   - v. _____
   - vi. _____

3. **When obtaining consent before caring for someone, which of the following do you NOT have to do?**
   - ☐ a. Have the person sign an Acceptance of Treatment form
   - ☐ b. Identify yourself with your name
   - ☐ c. Indicate what you think may be wrong and what you plan to do
   - ☐ d. State your level of training

4. **List three elements of good documentation:**
   - i. _____
   - ii. _____
   - iii. _____

5. **Discontinuing care of a patient without their consent, or without ensuring that someone with equal or greater training will continue the care, is called:**
   - ☐ a. Abandonment
   - ☐ b. Refusal of care
   - ☐ c. Transfer of function
   - ☐ d. Competence

6. **Identify whether each of the following statements about critical incident stress (CIS) is true or false:**
   i. The signs and symptoms of CIS usually appear soon after the event.
   ☐ **T** or ☐ **F**
   ii. The signs and symptoms of CIS usually last much longer than those of PTSD.
   ☐ **T** or ☐ **F**
   iii. You should try to deal with stressful situations on your own before turning to professional mental health services.
   ☐ **T** or ☐ **F**
   iv. Signs and symptoms of CIS can include confusion, anger, and increased or decreased appetite.
   ☐ **T** or ☐ **F**
   v. CIS can be caused by any emergency response, regardless of the circumstances.
   ☐ **T** or ☐ **F**

7. **Identify three components of a radio system:**
   i.
   ii.
   iii.

8. **If you are speaking with a physician, it is important that you:**
   - ☐ a. Write down everything the physician says
   - ☐ b. Repeat any orders back to the physician
   - ☐ c. Present all information rapidly
   - ☐ d. Verify that everything said by the physician is covered in your written protocols

9. **Which of the following is good practice when using a radio?**
   - ☐ a. Speaking slowly and clearly
   - ☐ b. Beginning to speak at the same time you push the "push to talk" button
   - ☐ c. Holding the radio right up to your mouth
   - ☐ d. Relaying all information you have collected at the scene up to that point

10. **List three elements of self-care:**
    i.
    ii.
    iii.

Responding to the Call

For Your Review

Read Chapter 2 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Hazardous materials:

What Would You Do?

Read the following scenario and answer the questions below.

You arrive at the scene of a motor vehicle collision. One car is perched on its side and on the other side of the road a truck has hit a large tree, snapping the trunk and leaving the tree angled over the truck.

1. As you approach the scene, you see a placard on the truck indicating that a flammable substance is on board. Which of the following would be an appropriate action to take?
   - ☐ a. Opening the truck's doors and investigating what the substance is
   - ☐ b. Ensuring that personnel who have appropriate training to deal with hazardous materials have been notified
   - ☐ c. Having bystanders gather buckets of water in case of fire
   - ☐ d. Checking to see if any houses nearby have a chainsaw so you can cut down the tree

2. **Appropriate resources are on the scene, dealing with the truck and directing traffic. You are clear to begin necessary treatment. The truck driver appears uninjured. He exits the truck under his own power and another responder tends to him. You now make your way to the car and its passengers. What should be your first step?**
   - ☐ a. Climbing into the car to assess the people inside
   - ☐ b. Asking the people in the car to climb out
   - ☐ c. Ensuring that the car has been stabilized and is safe
   - ☐ d. Gathering people to help you roll the car upright

Test Your Knowledge

1. **Which of the following is NOT a primary responsibility of the responder at an emergency scene?**
   - ☐ a. Ensuring safety for yourself and any bystanders
   - ☐ b. Gaining access to the patient(s)
   - ☐ c. Contacting the friends and/or family of the patient
   - ☐ d. Determining any threats to the patient's life

2. **If there is a downed electrical wire at an emergency scene, how far away should any bystanders be?**
   - ☐ a. Twice the length of the span of the wire
   - ☐ b. Half the distance between the two poles from which the broken wire has been strung
   - ☐ c. At least 15 metres (50 feet) from the downed wire
   - ☐ d. There is no specific distance that is safe

3. **Which of the following is a clue that a hazardous material may be present at an emergency?**
   - ☐ a. Chemical transport tanks and/or placards
   - ☐ b. Clouds of vapour or spilled solids or liquids
   - ☐ c. Unusual odours
   - ☐ d. All of the above

4. **Identify whether each of the following statements about emergency response plans is true or false:**
   - i. They should be created as soon as you arrive at the scene of the emergency.
     ☐ **T** or ☐ **F**
   - ii. They require you to be aware of the specially trained personnel in your community and how to contact them.
     ☐ **T** or ☐ **F**

iii. They can apply to specific buildings or to larger areas.
☐ **T** or ☐ **F**

iv. Once established, they must be practiced regularly.
☐ **T** or ☐ **F**

v. They should be kept confidential and not circulated outside of your agency.
☐ **T** or ☐ **F**

5. **Identify one strategy you should use if you encounter each of the following emergency scenes:**

Drug Labs:

Hostage Situations:

Crime Scenes:

6. **Each Safety Data Sheet (SDS) breaks down information about a given substance into 16 categories. Name four of those categories.**

i.

ii.

iii.

iv.

7. **When is it acceptable to enter a confined space to help a patient?**

☐ a. When you must access a patient to perform immediate life-saving interventions

☐ b. When there are no other responders on the scene

☐ c. When you have specialized training in dealing with confined spaces

☐ d. When you have confirmed that the confined space has adequate ventilation systems operating

Infection Prevention and Control

For Your Review

Read Chapter 3 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Acquired immune deficiency syndrome (AIDS):

Airborne transmission:

Bacteria:

Blood-borne pathogens:

Community-associated MRSA:

Direct contact transmission:

Hepatitis:

Herpes:

Human immunodeficiency virus (HIV):

Immune system:

Immunization:

Indirect contact transmission:

Infection:

Infectious disease:

Influenza:

Meningitis:

Pathogen:

Severe acute respiratory syndrome (SARS):

Tuberculosis:

Vector-borne transmission:

Virus:

What Would You Do?

Read the following scenario and answer the questions below.

You are called to an office because a young intern is worried about her boss, who has fallen and cut his leg. Upon talking to her, you learn that her boss has been coughing more than usual, and at times there has been blood on the tissues he uses. She attributed this to his age. As you approach him, he is coughing.

1. **What personal protective equipment, if any, should you wear when caring for the patient?**

2. **Aside from the cut on his leg, what ailment might the patient be suffering from?**
   - ☐ a. Meningitis
   - ☐ b. Tuberculosis
   - ☐ c. Kidney stones
   - ☐ d. Chickenpox/shingles

3. **If the patient's intern became infected through particles expelled during coughing, what method of disease transmission would this be?**
   - ☐ a. Direct contact
   - ☐ b. Indirect contact
   - ☐ c. Vector-borne transmission
   - ☐ d. Airborne transmission

Test Your Knowledge

1. **Which of the following can be transmitted by airborne particles?**
   - ☐ a. HIV/AIDS
   - ☐ b. Hepatitis and chicken pox
   - ☐ c. Meningitis and tuberculosis
   - ☐ d. Herpes and tetanus

2. **The four conditions that must be present for an infection to be transmitted to someone are:**

   i.

   ii.

   iii.

   iv.

3. **List four precautions you can take to prevent disease transmission:**

   i.

   ii.

   iii.

   iv.

4. **An exposure control plan should include the following elements:**

   i.

   ii.

   iii.

   iv.

5. **If you think you have been exposed to an infectious disease at an emergency scene, the first step you should take is:**
   - ☐ a. Go to a hospital to be tested
   - ☐ b. Report the exposure immediately
   - ☐ c. Determine what type of disease it is
   - ☐ d. Contact the Poison Control Centre

6. **In which of the following cases should you wear full protective equipment (gloves, gown, mask, and eyewear)?**
   - ☐ a. When wiping down a blood pressure cuff after a call
   - ☐ b. When caring for bleeding that is spurting
   - ☐ c. When caring for someone with signs of an infectious respiratory illness
   - ☐ d. Both b and c

7. **Which of the following can be transmitted by contaminated food?**
   - ☐ a. Tuberculosis and rubella
   - ☐ b. Typhus and diphtheria
   - ☐ c. Meningitis and hepatitis A
   - ☐ d. HIV/AIDS and herpes

8. **For each of the diseases in the table below, identify the mode(s) of transmission and whether a vaccination exists.**

Disease	Mode(s) of Transmission	Vaccination
Meningitis		
Hepatitis A		
Hepatitis C		
Tuberculosis		
Influenza		
HIV/AIDS		

Anatomy and Physiology

For Your Review

Read Chapter 4 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Anatomical Position:

Body system:

Cell:

Circulatory system:

Digestive system:

Endocrine system:

Genitourinary system:

Integumentary system:

Ligament:

Musculoskeletal system:

Nervous system:

Respiratory system:

Tendon:

Vital organs:

What Would You Do?

Read the following scenario and answer the questions below.

While at work at a machine shop, a man is turning a piece of steel on a lathe. The chuck is not tight enough, and when the tool makes contact with the steel, the steel projects itself toward the man. He puts his arm up to block his face and the steel makes a deep laceration in the back of his upper arm.

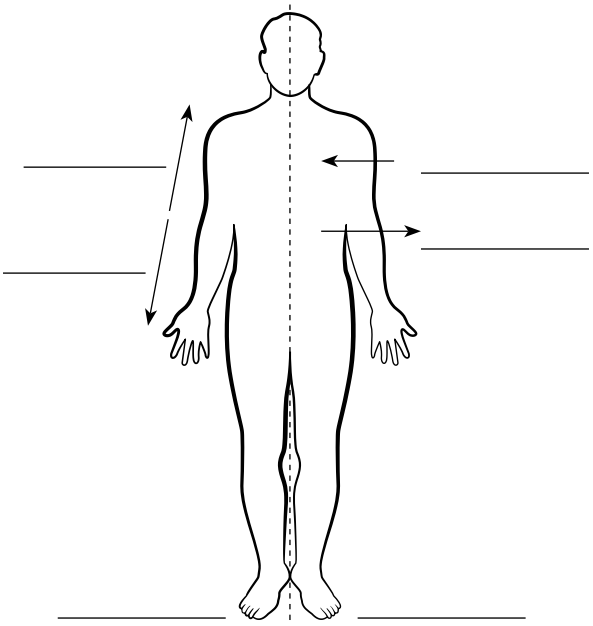
1. **Using correct terminology, describe the location of the injury in relation to these other body structures:**
   i. Elbow:
   ii. Shoulder:
2. **Is the injury superior or inferior to the pelvis?**

3. **Which two body systems will interact to alert the man to his injury?**
   ☐ a. Nervous and respiratory
   ☐ b. Endocrine and nervous
   ☐ c. Nervous and integumentary
   ☐ d. Circulatory and digestive

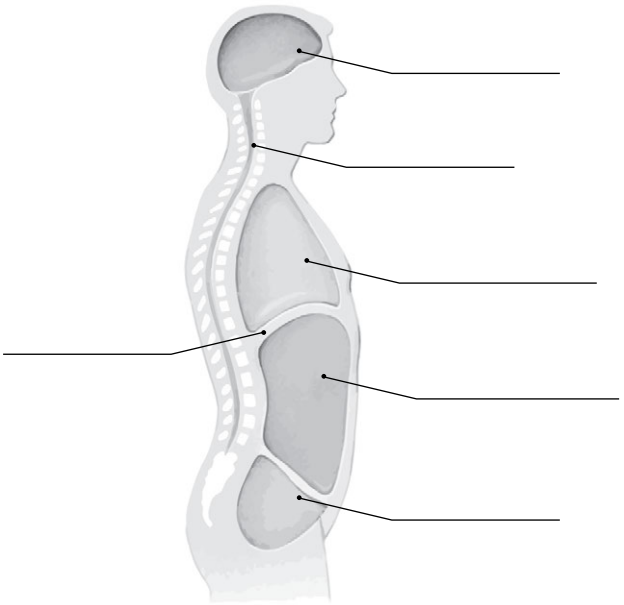
Test Your Knowledge

1. **Fill in the blanks with the correct body parts and other terminology below.**

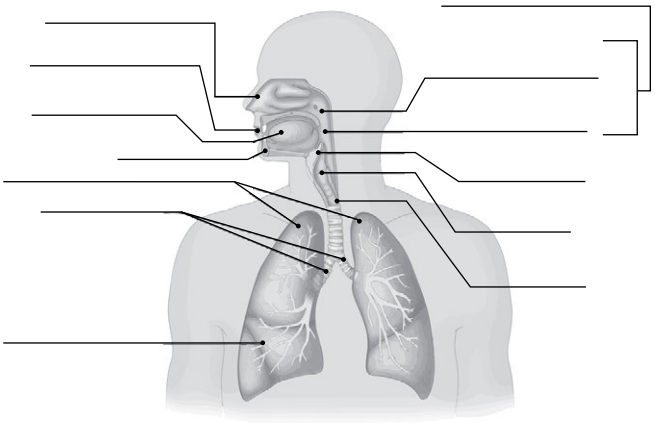
Directional Terms



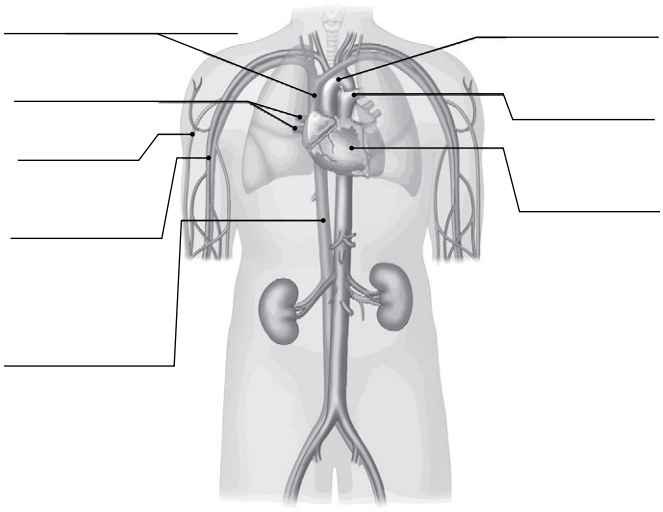
Body Cavities



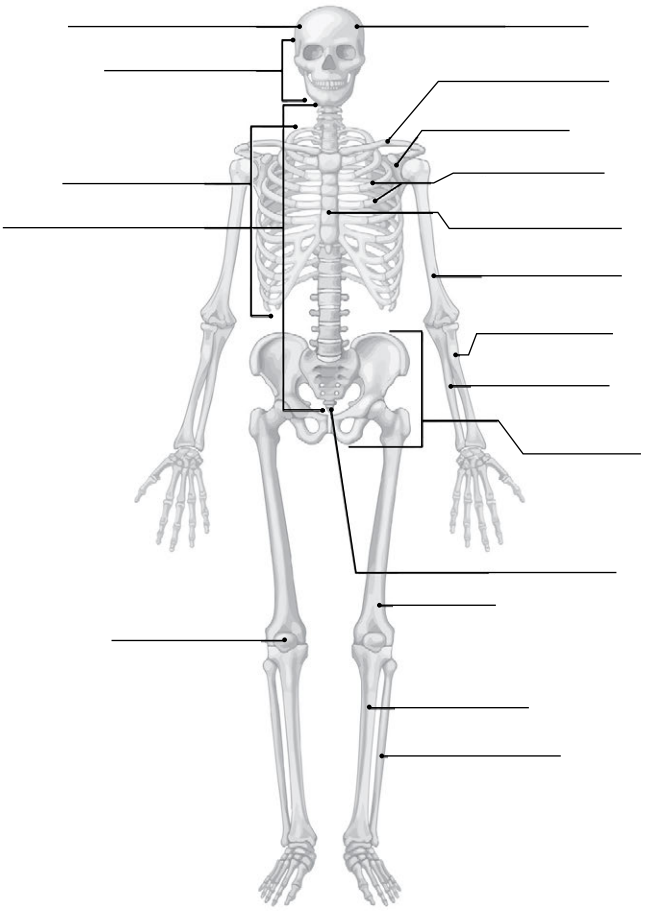
Respiratory System



Circulatory System



2. On the diagram below, indicate the location of the following structures: femur, pelvis, humerus, clavicle, skull, patella, radius, scapula, sternum, tibia, ulna, cranium, face, ribs, spinal column, coccyx, thorax, fibula.



3. **Complete the chart by filling in the empty cells:**

Body System	Major Components	Purpose
		Supplies the body with oxygen through breathing.
	Bones, muscles, joints, ligaments, tendons	
Nervous		
		Breaks down food and eliminates waste
Integumentary		
	Heart, arteries, veins, capillaries, blood	

4. **Epinephrine opens the airway by constricting the blood vessels (reducing swelling) and increasing the heart rate. Which two body systems does this indicate that epinephrine affects?**

   i.

   ii.

5. **The epiglottis prevents liquids and solids from entering what?**
   - ☐ a. The stomach
   - ☐ b. The lungs
   - ☐ c. The sinuses
   - ☐ d. The intestines

6. **Where do arteries carry blood?**
   - ☐ a. From the heart to the body tissues
   - ☐ b. From the lungs to the heart
   - ☐ c. From the heart to the lungs
   - ☐ d. Both a and c

7. **One of the main functions of the integumentary system is to:**
   - ☐ a. Prevent infection
   - ☐ b. Secrete hormones
   - ☐ c. Produce white blood cells
   - ☐ d. Transport nutrients to cells

8. **In comparison with the chest, the neck is described as _____ , whereas the abdomen is described as _____ .**
   - ☐ a. Medial, lateral
   - ☐ b. Superior, inferior
   - ☐ c. Proximal, distal
   - ☐ d. Anterior, posterior

9. **The respiratory system and cardiovascular system work together to:**
   - ☐ a. Provide oxygen to the cells of the body
   - ☐ b. Keep hormones distributed throughout the body
   - ☐ c. Regenerate nervous tissue after injury
   - ☐ d. Regulate blood flow to the digestive system

10. **Complete the chart by identifying the body system that each component is part of:**

Component	Body System
Trachea	
AV node	
Fibula	
Spinal cord	
Aorta	
Sacrum	
Deltoid	
Dermis	
Lymphatic duct	
Pancreas	
Patella	

Assessment

For Your Review

Read Chapter 5 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Blood pressure (BP):

Brachial artery:

Carotid arteries:

Chief complaint:

Cyanosis:

Glasgow Coma Scale (GCS):

Glucometry:

Golden Hour:

Head-tilt/chin-lift:

Jaw thrust:

Level of responsiveness:

Mechanism of injury (MOI):

Primary assessment:

Pulse oximetry:

Rapid body survey:

Rapid transport category:

Respiratory rate:

Secondary assessment:

Spinal Motion Restriction:

Transport decision:

Vital signs:

What Would You Do?

Read the following scenario and answer the questions below.

You are called to the local park, where a five-year-old child has collapsed in the sandbox. The child is not responsive. You confirm that the child is breathing effectively and has a carotid pulse.

1. **What are the next three steps you should take?**

   i.

   ii.

   iii.

2. **You assess the patient's vital signs and find the following. Put an "X" next to any vital signs that suggest a potential problem.**

Vital Sign	Normal vs. Not Normal
Level of responsiveness: Unresponsive	
Breathing: 10, shallow, and regular	
Pulse: 100, strong, and regular	
Skin: Pale, cool, and clammy	
Blood pressure: 120/60	
Pupils: Equal, round, and reactive to light	

3. **The child's babysitter is able to answer any questions you have regarding the child. Which of the following should you ask her about?**
   - ☐ a. The child's sleeping patterns, eating times, and vaccination records
   - ☐ b. The events leading up to the collapse, as well as the child's allergies, medical history, current medications, and last oral intake
   - ☐ c. The child's age, address, and school
   - ☐ d. The child's normal vital signs (e.g. respiratory rate, temperature) and typical behaviour

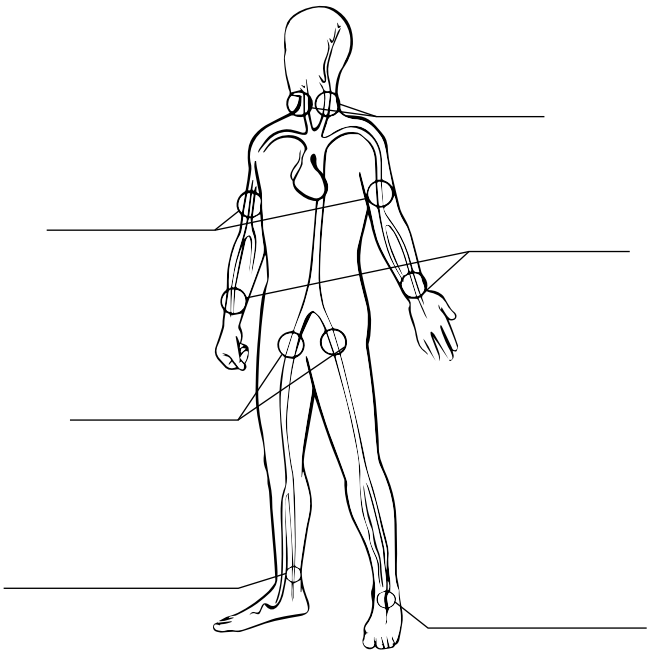
4. **After completing your secondary assessment, you perform another vital signs check and observe the following. Put an "X" next to any vital signs that suggest a potential problem.**

Vital Sign	Normal vs. Not Normal
Level of responsiveness: Reactive to verbal stimuli	
Breathing: 14, strong, and regular	
Pulse: 100, strong, and regular	
Skin: Warm and pink	
Blood pressure: 110/60	
Pupils: Equal, round, and reactive to light	

Test Your Knowledge

1. **Fill in the boxes to show the steps in the assessment process in order:**

2. **Label the pulse sites in the diagram:**



3. **Complete the words or phrases represented by each mnemonic below.**

ABC

A _____

B _____

C _____

SAMPLE

S _____

A _____

M _____

P _____

L _____

E _____

AVPU

A _____

V _____

P _____

U _____

OPQRST

O_____

P_____

Q_____

R_____

S_____

T_____

4. **Fill in the name of the vital sign that corresponds to each observation in the table below.**

Observation	Vital Sign
120/72	
Alert and oriented	
Equal, round, and reactive to light	
14, regular, and deep	
Dilated and fixed	
76, regular, and strong	
93, weak, and irregular	
130/P	
Pale, cool, and clammy	
GCS of 13	
Red, hot, and dry	
Unresponsive	

5. **If you check capillary refill and the nail bed does not return to its normal colour after you release, what does this mean?**
   - ☐ a. The patient has insufficient circulation
   - ☐ b. You pressed on the fingernail too hard
   - ☐ c. You did not press on the fingernail hard enough
   - ☐ d. The patient's heart is not beating

6. **Which of the following should you treat before performing a secondary assessment?**
   - ☐ a. A fracture of the elbow
   - ☐ b. An impaled object in the right hand
   - ☐ c. Severe bleeding from the left leg
   - ☐ d. None of these injuries should be treated until after the secondary assessment

7. **When forming a general impression, which of the following do you NOT need to determine?**
   - ☐ a. Whether the patient is ill or injured
   - ☐ b. The patient's sex and approximate age
   - ☐ c. Whether the patient takes any medications
   - ☐ d. The patient's chief complaint or problem

8. **Which of the following patients should be in the rapid transport category?**
   - ☐ a. A 30-year-old woman who has a bruise on her leg from a soccer ball
   - ☐ b. A 50-year-old man experiencing numbness and tingling on the right side of his body, and slurred speech
   - ☐ c. A 10-year-old girl who is crying because of a bee sting
   - ☐ d. A 65-year-old man experiencing stiffness in his back after swimming 30 lengths of the pool

9. **What are the purposes of the primary and secondary assessments?**
   - ☐ a. Determine whether the patient is in shock; identify whether the patient is still in shock or if your treatment has helped
   - ☐ b. Identify any hazards that are a threat to those at the scene; determine what else might be wrong with the patient
   - ☐ c. Determine the initial vital signs to compare with during later monitoring; identify any allergies or medications the patient might have
   - ☐ d. Identify conditions that are an immediate threat to life or could become an immediate threat to life; identify conditions that are not immediately life-threatening

10. **What are the three parts of the secondary assessment?**

    i.

    ii.

    iii.

11. List three pieces of equipment you might use to check a patient's vital signs:

i.

ii.

iii.

Airway Management and Respiratory Emergencies

For Your Review

Read Chapter 6 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Airway obstruction:

Anaphylaxis:

Assisted ventilation:

Aspiration:

Asthma:

Bradypnea:

Chronic bronchitis:

Chronic obstructive pulmonary disease (COPD):

Dyspnea:

Emphysema:

Epinephrine:

Finger sweep:

Hyperventilation:

Hypoxia:

Metered-dose inhaler (MDI):

Pneumonia:

Respiratory arrest:

Tachypnea:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

You are called to a break room where someone is choking. More advanced care is on the way. You arrive to find that the choking person has gone into the washroom to avoid embarrassment. The woman is visibly pregnant and quite far along. She is looking pale and anxious and is making high-pitched wheezing sounds.

1. **After identifying yourself and explaining what you are going to do, you should:**
   - ☐ a. Have the patient lie on the ground and begin chest compressions
   - ☐ b. Stand behind the patient and begin abdominal thrusts
   - ☐ c. Do nothing until the patient stops making sounds
   - ☐ d. Stand behind the patient and alternate between five firm back blows and five chest thrusts

2. **The woman becomes unresponsive, and you lower her safely to the ground. You open her airway using a head-tilt/chin-lift and check for breathing and a pulse. You find she is not breathing but has a pulse. You should:**
   - ☐ a. Attempt to give her a ventilation
   - ☐ b. Check for bystanders who can answer SAMPLE questions
   - ☐ c. Begin chest compressions
   - ☐ d. Do a finger sweep of her mouth

3. **At one point, your ventilation goes in and you see the patient's chest just begin to rise. You should:**
   - ☐ a. Do 30 chest compressions
   - ☐ b. Give another ventilation
   - ☐ c. Roll the patient into the recovery position
   - ☐ d. Recheck the patient's ABCs

4. **If you find that the woman is not breathing but still has a pulse, you should give her one ventilation every five to six seconds.**
   ☐ **T** or ☐ **F**

Scenario 2

You are called to a cafeteria where a patient in his mid-twenties is having a severe allergic reaction. He has a MedicAlert® medical identification product around his neck that indicates he has a severe allergy to peanuts, and he has used his prescribed epinephrine auto-injector. The person sitting beside him in the cafeteria was eating a granola bar.

1. **Which body systems can be affected by anaphylaxis?**
   - ☐ a. Nervous, endocrine, and genitourinary
   - ☐ b. Integumentary, endocrine, musculoskeletal, and nervous
   - ☐ c. Digestive, respiratory, and genitourinary
   - ☐ d. Integumentary, respiratory, cardiovascular, and digestive

2. **Hives or redness may be the visual signs of anaphylaxis on the skin. What signs may be present that indicate an effect on the digestive system?**

Test Your Knowledge

1. **Identify the condition that corresponds to each description in the table below.**

Condition	Description
	An obstruction in the airway
	A narrowing of the air passages
	A disease in which carbon dioxide/oxygen exchange is not effective
	A swelling of the air passages due to a reaction to an allergen
	A disease causing excessive mucous secretions and anti-inflammatory changes to the bronchi
	Breathing faster than normal

2. **A person has experienced anaphylactic reactions in the past will often carry:**
   - ☐ a. A glucometer
   - ☐ b. An epinephrine auto-injector
   - ☐ c. A pulse oximeter
   - ☐ d. A metered-dose inhaler

3. **General care for any respiratory distress can include:**
   - ☐ a. Assisting the patient with taking prescribed medication, reassuring the patient
   - ☐ b. Performing CPR
   - ☐ c. Having the patient lie down, keeping the patient cool
   - ☐ d. Ensuring the area is well-ventilated, performing abdominal thrusts

4. **A patient has no signs of breathing or circulation. After giving two one-second ventilations, what should you do?**
   - ☐ a. Check for signs of circulation, including a pulse, for no more than 5 to 10 seconds
   - ☐ b. Check the patient's level of responsiveness
   - ☐ c. Continue providing assisted ventilation
   - ☐ d. Begin 30 chest compressions

5. **If an unresponsive patient vomits while you are performing ventilations, this is probably because:**
   - ☐ a. The smell of the mask is bothering the patient
   - ☐ b. The head wasn't tilted back appropriately, or you were ventilating too forcefully
   - ☐ c. The patient had been poisoned and the ventilations caused the stomach to expel the poison
   - ☐ d. The lungs are reacting to the positive pressure of the ventilations

6. **If a patient is wearing dentures and you need to perform assisted ventilation, what should you do?**
   - ☐ a. Remove them immediately to prevent them from obstructing the patient's airway
   - ☐ b. Always keep them in; if you take them out they will most likely get lost or broken
   - ☐ c. Leave them in unless they have become loose, as this will give you a better seal around the mouth
   - ☐ d. Check the patient's wallet for a card that expresses what they want a rescuer to do with the dentures in case of an emergency

7. **Identify whether each of the following statements about suctioning is true or false:**
   - i. The tip of a suction device is referred to as a catheter.
     ☐ **T** or ☐ **F**
   - ii. It is good practice to have a suctioning unit on standby whenever you are providing assisted ventilations to an unresponsive patient.
     ☐ **T** or ☐ **F**
   - iii. Suctioning devices are most effective when removing solids.
     ☐ **T** or ☐ **F**
   - iv. Suction devices are not suitable for use on responsive patients.
     ☐ **T** or ☐ **F**
   - v. The distance of insertion for a suction device is the distance from the patient's earlobe to the corner of the mouth.
     ☐ **T** or ☐ **F**

8. **You are starting care for someone who is unresponsive and choking. If your first ventilation does not go in, you should:**
   - ☐ a. Do 30 chest compressions
   - ☐ b. Attempt another ventilation with slightly more force
   - ☐ c. Do a finger sweep of the mouth
   - ☐ d. Reposition the patient's head and attempt another ventilation

9. **When performing back blows and chest thrusts on a responsive choking infant, how should you position the patient?**
   - ☐ a. On a flat surface such as a table
   - ☐ b. On a soft surface such as a folded blanket
   - ☐ c. On your thigh with the head lower than the chest
   - ☐ d. Upside down so gravity has the most effect

10. **How long will a D cylinder of oxygen last, given a gauge pressure of 2000 and a flow rate of 12 LPM?**
    - ☐ a. 12.6 minutes
    - ☐ b. 16 minutes
    - ☐ c. 20.4 minutes
    - ☐ d. 24 minutes

11. **List seven general signs and symptoms of a respiratory emergency:**

    i.

    ii.

    iii.

    iv.

    v.

    vi.

    vii.

12. **When is it appropriate to stop giving assisted ventilations?**

13. **What are the two types of airway obstruction?**

    i.

    ii.

Circulatory Emergencies

For Your Review

Read Chapter 7 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Acetylsalicylic acid (ASA):

Angina:

Automated external defibrillator (AED):

Cardiac arrest:

Cardiopulmonary resuscitation (CPR):

Cardiovascular disease:

Cerebrovascular accident:

Cholesterol:

Circulatory emergencies:

Congestive heart failure:

Coronary arteries:

Myocardial infarction (MI):

Nitroglycerin:

Tachycardia:

Transient ischemic attack (TIA):

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

You are called to a scene where a man is experiencing chest pain that is radiating into his back and neck. It seems to get slightly better with rest but does not go away completely. He is sitting as comfortably as possible, but he looks pale and is short of breath.

1. **While interviewing the man, you find out that this has happened to him in the past, and his physician has prescribed "some sort of medication" for when he feels like this. He keeps the medication in his case. You find his case and bring it to him. He takes out a bottle of nitroglycerin. The label identifies it as his, and it has not expired. To avoid the risk of lowering the patient's blood pressure, what must you ask the patient before suggesting that he take the nitroglycerin?**

2. **More advanced medical care will be on the scene in approximately 10 minutes. Should you suggest a second dose of nitroglycerin?**
   - ☐ a. Yes, if the pain has not been relieved after 3 to 5 minutes
   - ☐ b. Yes, if the pain is not relieved immediately
   - ☐ c. Yes, if the pain gets any worse
   - ☐ d. No: a patient should not take more than one dose of nitroglycerin per day

3. **List three other actions you would take in caring for this man:**

   i.

   ii.

   iii.

4. **If this is a myocardial infarction, why is it important that advanced medical care be obtained quickly?**

Scenario 2

You and your partner have responded to a cardiac arrest. Your partner has already started CPR, and you are now arriving with the AED. As you approach, you see your partner performing CPR on a young boy of approximately six years of age. You expose his chest and see a MedicAlert® medical identification product around his neck. The necklace says he has a heart problem.

1. **What should you do?**
   - ☐ a. Nothing, as you should not use an AED on a child
   - ☐ b. Nothing, as you should not use an AED on someone with a pre-determined heart problem
   - ☐ c. Use the AED on the child
   - ☐ d. Stop CPR

2. **If you decide to use the AED on the child, what precautions should you take?**

3. **Upon preparing to put the electrode pads on the child's chest, you notice that the child is quite small, and the two pads are almost touching. You should:**
   - ☐ a. Use only one electrode pad
   - ☐ b. Move the lower electrode pad further toward the abdomen to make space between the pads
   - ☐ c. Do not use the AED on the child
   - ☐ d. Put one electrode pad on the chest and one on the back

4. **The AED analyzes and charges. You ensure everyone is clear and then hit the "shock" button. What is your next step?**

Test Your Knowledge

1. **If a patient is having chest pain, which six key questions should you ask about the pain?**

   i.

   ii.

   iii.

   iv.

   v.

   vi.

2. **Which two scales can you use to assess someone with a suspected cerebrovascular accident?**

   i.

   ii.

3. **When is it appropriate to stop CPR?**

4. **Fill in all the missing elements in the chart below.**

	Adult	Child	Infant	Neonate
Hand Position			Two fingers on sternum (just below nipple line) **OR** Encircling method	
Compression Depth		1/3 of the chest depth		
One-Responder Cycle				3 compressions 1 ventilation
Two-Responder Cycle	30 compressions 2 ventilations			
Compression Rate			100–120 per minute (30 compressions in 15–18 seconds)	

5. **Children's and babies' hearts usually stop because:**
   - ☐ a. Their hearts are not fully developed yet
   - ☐ b. There are a large number of diseases that often affect their hearts
   - ☐ c. Their brains are not yet fully programmed to regulate the heart's electrical system
   - ☐ d. Their breathing stops

6. **During two-responder CPR, the ventilator should:**
   - ☐ a. Periodically check the effectiveness of the compressions by checking the pulse
   - ☐ b. Have the compressor stop every minute to reassess the ABCs
   - ☐ c. Give one ventilation every five compressions
   - ☐ d. All of the above

7. **The main purpose of CPR is to:**
   - ☐ a. Reverse the damage the myocardium may have sustained while deprived of oxygenated blood
   - ☐ b. Keep oxygenated blood circulating to the vital organs of the body
   - ☐ c. Prevent clinical death from occurring
   - ☐ d. None of the above

8. **The surest sign of cardiac arrest is:**
   - ☐ a. Unresponsiveness
   - ☐ b. Absence of a pulse
   - ☐ c. Ineffective or absent breathing
   - ☐ d. Blueness around the lips

Shock

For Your Review

Read Chapter 8 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Diaphoresis:

Perfusion:

Shock:

Trendelenburg position:

What Would You Do?

Read the following scenario and answer the questions below.

You are called to the scene of a motor vehicle collision where a pedestrian was hit in the thigh. The driver of the vehicle is speaking with a law enforcement officer. You find a young woman lying on her back on the ground, propped up on one elbow, wincing in pain.

1. **You take a set of vital signs and find the patient's pulse to be 130, weak, and rapid, and she has a blood pressure of 86/58. This most likely indicates:**
   - ☐ a. She is losing blood internally, and her heart is compensating for this by beating faster
   - ☐ b. She has a severe infection that is affecting her cardiovascular system
   - ☐ c. She is mad at the driver for hitting her, and her stress level is high
   - ☐ d. Nothing is wrong, as these vital signs are normal for a someone of her age

2. **What steps would you take to care for the patient?**

3. **When you take the next set of vital signs, her pulse is 150, weak, and rapid, her breathing is ineffective and at a rate of 30 times per minute, and her blood pressure is 74/42. When you assess her level of responsiveness she does not respond to your voice. What is the next step to take?**
   - ☐ a. Shake her to wake her up
   - ☐ b. Increase the flow of oxygen
   - ☐ c. Apply a painful stimulus and look for a response
   - ☐ d. Take note of her level of responsiveness and move on to checking her pupils

4. **The patient begins to gasp for air and then stops breathing. You reassess her ABCs and find she is in cardiac arrest. What is your next step?**
   - ☐ a. Take her blood pressure
   - ☐ b. Recheck her vital signs
   - ☐ c. Suction her airway and then increase oxygen flow
   - ☐ d. Begin CPR/AED

Test Your Knowledge

1. **What should you do for a patient who is in shock?**
   - ☐ a. Provide a sugary snack or drink
   - ☐ b. Give the patient plenty of water
   - ☐ c. Keep the patient as cool as possible
   - ☐ d. Place the patient in the Trendelenburg or supine position

2. **Match each type of shock below with its cause by placing the corresponding letter in the space provided.**

____	Neurogenic	**A** Failure of the heart to effectively pump blood to all parts of the body
____	Psychogenic	**B** Loss of blood volume due to significant internal or external bleeding
____	Septic	**C** Factors such as emotional stress cause blood to pool in the body in areas away from the brain because of vessels dilating
____	Anaphylactic	**D** Poisoning caused by severe infections that cause blood vessels to dilate
____	Cardiogenic	**E** Life-threatening allergic reaction to a substance
____	Hemorrhagic	**F** Something physically prevents the heart from filling or emptying properly
____	Obstructive	**G** Failure of the nervous system to control the size of blood vessels, causing them to dilate

3. **Shock is life-threatening because:**
   - ☐ a. The blood becomes poisonous
   - ☐ b. The vital organs are not getting adequate oxygen-rich blood
   - ☐ c. There is not enough blood in the circulatory system
   - ☐ d. Carbon dioxide is not being released from the tissues in large enough quantities

4. **Why does the skin of someone in shock appear pale and feel cool?**
   - ☐ a. The heart beats faster; therefore, the body's heat is used as energy
   - ☐ b. The heart slows down; therefore, less heat is produced
   - ☐ c. The blood vessels constrict in the arms, legs, and skin
   - ☐ d. The body cools itself to conserve energy

5. **Which of the following situations is likely to lead to shock?**
   - ☐ a. A teenager damages her spine in a diving incident
   - ☐ b. A worker loses his arm to a piece of farming equipment
   - ☐ c. A child who has the flu has been unable to keep fluids down for several days
   - ☐ d. All of the above

6. **Which position is recommended for a patient in shock?**
   - ☐ a. Supine with the head elevated
   - ☐ b. Supine or Trendelenburg
   - ☐ c. Seated comfortably in a chair
   - ☐ d. On a long backboard

7. **Which of the following is NOT included in the general care for shock?**
   - ☐ a. Administering oxygen
   - ☐ b. Maintaining normal body temperature
   - ☐ c. Giving assisted ventilations
   - ☐ d. Providing rest and reassurance

Hemorrhage and Soft Tissue Trauma

For Your Review

Read Chapter 9 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Bandage:

Burn:

Closed wound:

Critical burn:

Direct pressure:

Dressing:

External bleeding:

Full-thickness burn:

Hemorrhage:

Internal bleeding:

Open wound:

Partial-thickness burn:

Pressure bandage:

Soft tissues:

Superficial burn:

Tourniquet:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

You are called to a warehouse where one of the workers was trying to remove something jammed in the cardboard baler. He got the jam out but did not get his hand out in time, and his hand has been amputated. He is lying on the concrete floor, responsive and in severe pain.

1. **After ensuring you have the appropriate personal protective equipment on, what should your next step be?**
   - ☐ a. Performing a secondary assessment and looking for any other injuries
   - ☐ b. Bandaging the wrist where the hand was amputated
   - ☐ c. Taking a set of vital signs
   - ☐ d. Retrieving the hand from the baler

2. **Which of the following conditions will the patient likely develop shortly?**
   - ☐ a. Shock
   - ☐ b. Hemothorax
   - ☐ c. Angina
   - ☐ d. Infection

Scenario 2

An older cook slips in a cafeteria. As she falls, she reaches out and her hand hits the handle of a pot on the stove. The pot, in which potatoes were being boiled, flips off the stove, and the boiling water lands on the woman.

1. **You note that she has partial-thickness burns covering her face, neck, and posterior left arm. She has superficial burns to her right posterior arm. Estimate the percentage of her body that has been burned.**
   - ☐ a. 9%
   - ☐ b. 18%
   - ☐ c. 27%
   - ☐ d. 36%

2. **Identify whether each of the following statements is true or false:**
   - i. This is considered a critical burn.
     ☐ **T** or ☐ **F**
   - ii. This patient requires more advanced medical care.
     ☐ **T** or ☐ **F**
   - iii. You should not begin providing care for this patient until you have completed a full secondary assessment.
     ☐ **T** or ☐ **F**

3. **After cooling, what should be put on the burns to keep out air and reduce pain?**
   - ☐ a. Non-stick sterile dressings
   - ☐ b. Sterile occlusive dressings
   - ☐ c. More cool cloths
   - ☐ d. Nothing

Test Your Knowledge

1. **List the signs and symptoms of internal hemorrhage.**

2. **What are the four main types of open wounds?**

   i.

   ii.

   iii.

   iv.

3. **A sign of external hemorrhage is:**
   - ☐ a. Blood oozing from a wound
   - ☐ b. Blood that fails to clot after you have tried to control it
   - ☐ c. Blood spurting from a wound
   - ☐ d. Both b and c

4. **Which of the following is NOT involved in the care for internal hemorrhaging?**
   - ☐ a. Obtaining more advanced medical care
   - ☐ b. Administering supplemental oxygen
   - ☐ c. Giving the patient sips of water
   - ☐ d. Treating the patient for shock

5. **If direct pressure and pressure bandages do not stop the bleeding, which of the following can be used as a last resort?**
   - ☐ a. Arterial clamping
   - ☐ b. A tourniquet
   - ☐ c. Elastic bandaging
   - ☐ d. Hyperbaric recompression

6. **Which of the following can a bandage be used for?**
   - ☐ a. Preventing air from reaching a wound
   - ☐ b. Providing a sterile covering for a wound
   - ☐ c. Applying pressure to control bleeding
   - ☐ d. Preventing germs from reaching a wound

7. **If someone has been struck by lightning, which of the following injuries might you suspect?**
   - ☐ a. Burns
   - ☐ b. Spinal injuries
   - ☐ c. Entry and exit wounds
   - ☐ d. All of the above

8. **If a patient has a burn that is black and charred with white tissue in the middle, this is a:**
   - ☐ a. Superficial burn
   - ☐ b. Partial-thickness burn
   - ☐ c. Full-thickness burn
   - ☐ d. None of the above

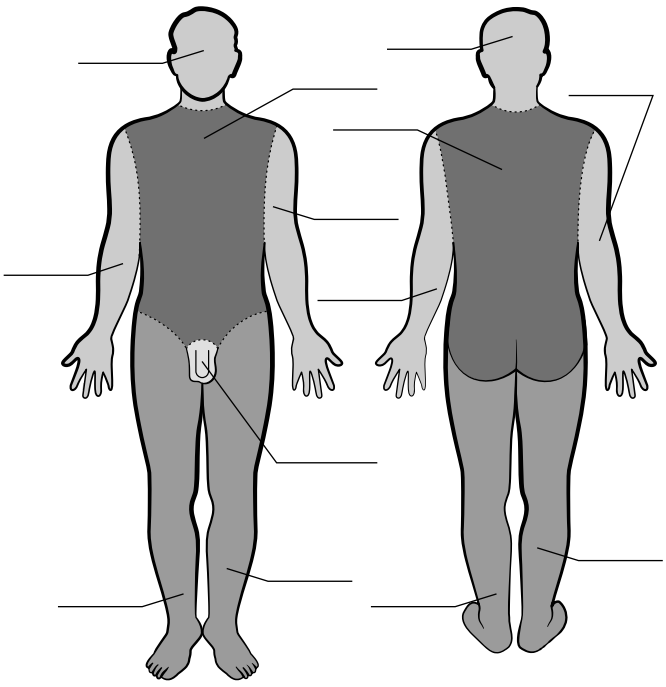
9. **When bandaging a patient's forearm, you should leave the fingers of the hand exposed if possible.**
   ☐ T or ☐ F

10. **A patient has dropped a chemical powder on her foot, causing a chemical burn. What should you do first?**
    - ☐ a. Brush the dry chemicals off the foot using a gloved hand
    - ☐ b. Cool the area with cool running water
    - ☐ c. Apply a cold compress to the area
    - ☐ d. Cover the area with a non-stick sterile dressing

11. **Which of the following patients requires more advanced medical care?**
    - ☐ a. A 35-year-old man with a full-thickness burn on his hand
    - ☐ b. A 7-year-old child with a sunburn on his back
    - ☐ c. A 72-year-old woman with a blistered burn on her leg
    - ☐ d. Both a and c

12. **The area around a recent wound is now red and swollen and feels warm to the touch. This may indicate:**
    - ☐ a. An underlying chronic illness
    - ☐ b. Severe internal bleeding
    - ☐ c. An infection
    - ☐ d. A superficial burn

13. **On the diagram below, write the percentages that correspond to the various body areas, to represent the percentage of body surface burned.**



14. **Which of the following situations involving epistaxis (nosebleed) would indicate obtaining more advanced medical care?**
    - ☐ a. The epistaxis cannot be controlled within 10 to 15 minutes by pinching the nostrils
    - ☐ b. The epistaxis is the fourth nosebleed in a one-year period
    - ☐ c. The epistaxis is caused by low blood pressure
    - ☐ d. The epistaxis is the first nosebleed the patient has ever had

Musculoskeletal Injuries

For Your Review

Read Chapter 10 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Dislocation:

Distal circulation:

Extremities:

Fracture:

Splint:

Sprain:

Strain:

Traction:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

You are called to a field where a rugby player has just been hit in the legs from the front. She is lying on the ground in the middle of the field. The coach is with her, and most of the players from both teams are gathered around.

1. **As you approach, you notice that one leg is shorter than the other and the foot is pointed outward. This would indicate:**
   - ☐ a. A hip injury
   - ☐ b. A broken ankle
   - ☐ c. A broken femur
   - ☐ d. Shock

2. **Which of the following is an appropriate treatment for this injury?**
   - ☐ a. Applying a traction splint
   - ☐ b. Securing the injured leg to the uninjured leg
   - ☐ c. Applying a rigid splint
   - ☐ d. All of the above

3. **List four methods you can use to assess distal circulation and sensation:**

   i.

   ii.

   iii.

   iv.

Scenario 2

You arrive at a scene where a 23-year-old man has tripped and fallen on his arm. The forearm appears deformed, and he is in a great deal of pain. He is sitting on the floor holding his arm against his chest.

1. **Which two bones may be broken?**
   - ☐ a. Tibia and fibula
   - ☐ b. Radius and humerus
   - ☐ c. Scapula and clavicle
   - ☐ d. Radius and ulna

2. **When splinting this injury, your splint should:**
   - ☐ a. Immobilize the elbow and wrist
   - ☐ b. Consist of a sling only
   - ☐ c. Ensure the arm is straight
   - ☐ d. Include traction

3. **You should secure the arm to the chest after applying a sling.**
   ☐ **T** or ☐ **F**

4. **After splinting, you notice that the fingers are becoming pale and cool. You should:**
   - ☐ a. Treat the patient for shock
   - ☐ b. Take the splint off and start again
   - ☐ c. Loosen any bandages or ties
   - ☐ d. Put a mitten or glove on the hand

Test Your Knowledge

1. **Why is it important to check distal circulation and sensation before and after splinting a suspected musculoskeletal injury?**

2. **List five common signs and symptoms of musculoskeletal injuries:**

   i.

   ii.

   iii.

   iv.

   v.

3. **List five common signs and symptoms indicating a fracture:**

   i.

   ii.

   iii.

   iv.

   v.

4. **What are the four general care steps for musculoskeletal injuries?**

   i.

   ii.

   iii.

   iv.

5. **What are the four general types of splints?**

   i.

   ii.

   iii.

   iv.

6. **Describe the care you would provide for a patient with a broken lower leg.**

7. **Applying cold to a musculoskeletal injury is helpful because:**
   - ☐ a. It freezes the skin to numb the pain
   - ☐ b. It eases pain and discomfort
   - ☐ c. It decreases the temperature of the area to an optimal healing temperature
   - ☐ d. It kills any pathogens that may cause infection

8. **Which of the following is NOT a purpose of immobilizing an injury?**
   - ☐ a. To reduce blood flow to the injured limb
   - ☐ b. To lessen pain
   - ☐ c. To prevent further damage or injury
   - ☐ d. To reduce the risk of serious bleeding

9. **When treating a bent knee with a suspected fracture that is painful to move, you should:**
   - ☐ a. Immobilize it in the position found
   - ☐ b. Return it to the normal anatomical position and then immobilize it
   - ☐ c. Have the patient extend the leg and hold it in place
   - ☐ d. Avoid immobilizing the injury

10. **Before immobilizing an injured extremity you should always:**
    - ☐ a. Return the limb to the normal anatomical position
    - ☐ b. Control any external bleeding
    - ☐ c. Push any exposed bones back under the skin
    - ☐ d. Elevate the injury

11. **Which of the following patterns is effective for applying an elastic roller bandage to a shoulder or knee?**
    - ☐ a. Triangular pattern
    - ☐ b. Joint-hook pattern
    - ☐ c. Extremity-relief pattern
    - ☐ d. Figure-eight pattern

12. **What should you do when applying a rigid splint to a patient's forearm?**
    - ☐ a. Ensure that it allows the patient's arm to bend at the elbow
    - ☐ b. Ensure that it does not extend beyond the patient's wrist
    - ☐ c. Ensure that it applies direct pressure to the injured area
    - ☐ d. Ensure that it extends from the shoulder to beyond the hand

Chest, Abdominal, and Pelvic Injuries

For Your Review

Read Chapter 11 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Abdominal aortic aneurysm:

Evisceration:

Flail chest:

Occlusion:

Paradoxical movement:

Pneumothorax:

Sucking chest wound:

Tension pneumothorax:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

A construction worker has fallen onto a sharp wooden stake, which has punctured his chest. When you arrive he is lying on his back, and there is blood coming through his jacket. He is responsive and gasping for air. You hear air entering his rib cage with each respiration.

1. **You suspect the stake has caused a:**
   - ☐ a. Fractured rib
   - ☐ b. Sucking chest wound
   - ☐ c. Flail chest
   - ☐ d. Kidney perforation

2. **You expose the chest and see a hole in the man's left side. You do not see any other wounds on the chest or abdomen, nor do you see blood coming from anywhere else. You should cover the hole with your gloved hand until you are able to cover the wound with:**
   - ☐ a. Sterile gauze
   - ☐ b. An adhesive bandage
   - ☐ c. A non-occlusive dressing
   - ☐ d. A triangular bandage

3. **If air enters the pleural space, what condition may occur?**
   - ☐ a. Flail chest
   - ☐ b. Hemothorax
   - ☐ c. Abdominal aortic aneurysm
   - ☐ d. Pneumothorax

Scenario 2

A middle-aged man has been stabbed in the abdomen. He is responsive and is breathing adequately. His skin is pale and sweaty, and he is complaining of thirst. You see blood running down his side onto the ground beneath him. As you get close you see a large wound just above his navel, and there is part of an organ protruding from the wound.

1. **Which of the following should you do?**
   - ☐ a. Cover the protruding organs with a moist sterile dressing
   - ☐ b. Cover the patient with a dry dressing or towel to maintain warmth
   - ☐ c. Remove clothing from around the wound
   - ☐ d. All of the above

2. **What is the best position for this patient?**
   - ☐ a. Sitting position
   - ☐ b. Recovery position
   - ☐ c. Supine with knees slightly bent
   - ☐ d. Prone position

3. **The area should be treated as a crime scene.**
   ☐ **T** or ☐ **F**

Test Your Knowledge

1. **Write in the corresponding letters to indicate whether each of the following signs and symptoms is most often associated with chest injuries (C), abdominal and/or pelvic injuries (A/P), or all three (C, A/P).**

   _____ Nausea and vomiting

   _____ Pale skin

   _____ Thirst

   _____ Coughing up blood

   _____ Obvious deformity

   _____ Difficulty breathing (dyspnea)

   _____ Protruding organs

   _____ Tenderness in the abdomen

   _____ Pain at the injury site that increases with movement

   _____ Flushed skin

   _____ Bluish skin

   _____ Bruising

2. **If someone receives a penetrating trauma about 5 cm (2 in.) below the navel, which organ is most likely to be injured?**
   - ☐ a. Pancreas
   - ☐ b. Gallbladder
   - ☐ c. Small intestine
   - ☐ d. Liver

3. **A fractured pelvis may lead to the inability to move or feel the legs. What else can cause the same condition?**
   - ☐ a. Injury to the lower spine
   - ☐ b. Rupture of the spleen
   - ☐ c. Fracture of the femur
   - ☐ d. Heart attack

4. **Pneumothorax is caused by which of the following entering the pleural space around the lung?**
   - ☐ a. Digestive enzymes
   - ☐ b. Blood
   - ☐ c. Air
   - ☐ d. Tissue

5. **When treating someone with a closed abdominal injury, the patient's legs should be:**
   - ☐ a. Bent with knees pulled towards the chest
   - ☐ b. Lower than the patient's head
   - ☐ c. Raised approximately 15 cm (6 in)
   - ☐ d. Slightly bent with a rolled-up blanket or pillow under the knees

6. **To treat flail chest, you should:**
   - ☐ a. Apply bulky dressings to the flail segment
   - ☐ b. Tightly bind the patient's arm to the chest to form an anatomical splint
   - ☐ c. Place the patient in the recovery position
   - ☐ d. Bind the entire chest, ensuring you do not restrict the patient's breathing

7. **If the abdomen is struck with a blunt object, there may be damage to the spleen, which may result in:**
   - ☐ a. Infection
   - ☐ b. Gastroenteritis
   - ☐ c. Severe blood loss
   - ☐ d. Difficulty breathing (dyspnea)

Head and Spinal Injuries

For Your Review

Read Chapter 12 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Cervical collar:

In-line stabilization:

Spinal Motion Restriction (SMR):

What Would You Do?

Read the following scenario and answer the questions below.

A 34-year-old man carrying a tool box falls off a ladder to the ground five metres (16 feet) below. He is lying on his back and is not moving, but he is responsive. When the tool box came down, a nail fell, and it is now impaled in his eye. You also see some small cuts on his face and there is fluid coming from his ears.

1. **What should you do first?**
   - ☐ a. Immobilize the nail in his eye
   - ☐ b. Do a head-tilt/chin-lift and check for normal breathing
   - ☐ c. Put him in the recovery position
   - ☐ d. Minimize movement of his head and spine
2. **Should the Canadian C-Spine Rule be applied when assessing this patient? Why or why not?**
3. **Which of the following should you suspect based on the fluid coming from the patient's ears?**
   - ☐ a. An epidural hematoma
   - ☐ b. A subdural hematoma
   - ☐ c. A C-spine Injury
   - ☐ d. A skull fracture

Test Your Knowledge

1. **Place a number next to each of the following steps to indicate the correct sequence for immobilizing someone on a long backboard. (Assume that the patient is supine when you begin.)**

   ____ Apply a cervical collar

   ____ Ensure the patient is in the correct position on the board

   ____ Immobilize the head to the board

   ____ Begin manual in-line stabilization

   ____ Secure the chest to the board

   ____ Secure the legs to the board

   ____ Log-roll the patient on his side

   ____ Log-roll the patient onto the board

   ____ Secure the pelvis to the board

2. **List eight situations that should make you suspect a head and/or spinal injury.**

   i.

   ii.

iii.

iv.

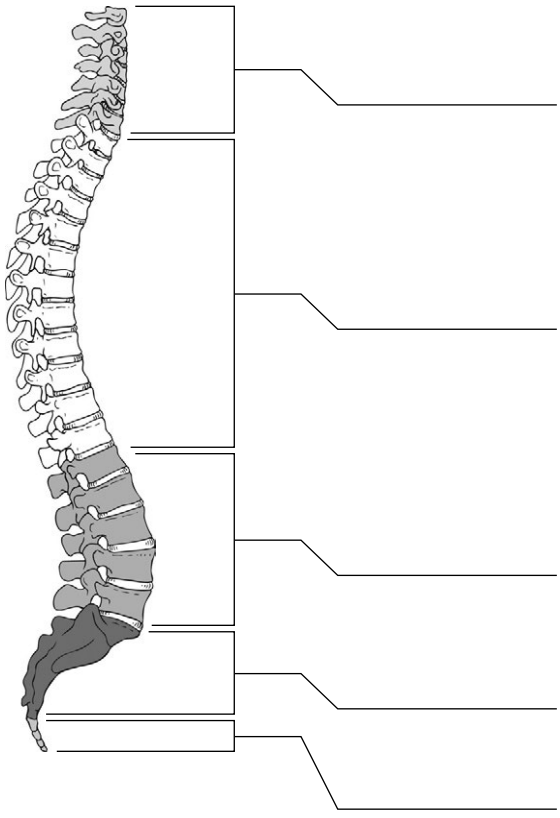
v.

vi.

vii.

viii.

3. **Label the five regions of the spine.**



4. **In which of the following cases should you NOT attempt in-line stabilization for someone with a suspected spinal injury?**
   - ☐ a. The patient's head is severely angulated to one side
   - ☐ b. You encounter resistance when attempting to move the head
   - ☐ c. The patient complains of pain when you attempt to move the head
   - ☐ d. All of the above

5. **Which of the following is an appropriate intervention for a patient with an orbit fracture?**
   - ☐ a. Applying direct pressure to the injured area with your gloved hand
   - ☐ b. Placing cold packs around the injured area
   - ☐ c. Bandaging the area securely
   - ☐ d. Placing the patient in the recovery position

6. **Indicate whether each of the following statements about SMR is true or false:**
   - i. SMR is generally indicated for any patient who is not fully alert.
     ☐ **T** or ☐ **F**
   - ii. SMR is generally indicated for a patient who was injured in a simple rear-end motor vehicle collision.
     ☐ **T** or ☐ **F**
   - iii. SMR is generally indicated for any patient with deferred onset of neck pain after an injury.
     ☐ **T** or ☐ **F**
   - iv. SMR is generally indicated for any trauma patient aged 65 or older.
     ☐ **T** or ☐ **F**
   - v. SMR is generally indicated for any patient who cannot stand up without assistance.
     ☐ **T** or ☐ **F**

7. **A change in which of the following vital signs may indicate a brain injury?**
   - ☐ a. Pupils and level of responsiveness
   - ☐ b. Pulse and blood pressure
   - ☐ c. Respiration
   - ☐ d. All of the above

8. **Indicate whether each of the following patients is likely to require spinal motion restriction (SMR):**
   - i. A patient who walks towards you when you arrive on the scene.
     ☐ **Yes** or ☐ **No**
   - ii. A patient who cannot turn her head to look at you as you approach.
     ☐ **Yes** or ☐ **No**
   - iii. A patient who was injured in a simple rear-end motor vehicle collision.
     ☐ **Yes** or ☐ **No**
   - iv. A patient who was injured falling down five stairs.
     ☐ **Yes** or ☐ **No**
   - v. A 61-year-old patient who is sitting on a bench talking with a bystander.
     ☐ **Yes** or ☐ **No**

Acute and Chronic Illnesses

For Your Review

Read Chapter 13 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Appendicitis:

Diabetes mellitus:

Epilepsy:

Gestational diabetes:

Glucometer:

Hyperglycemia:

Hypoglycemia:

Insulin:

Insulin pump:

Insulin reaction:

Juvenile diabetes:

Seizure:

Status epilepticus:

Syncope:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

A 22-year-old male falls to the floor at work and begins to shake uncontrollably. His arms and legs flail for a short period of time, then he becomes unresponsive. You arrive on the scene just as the shaking stops.

1. **This was most likely:**
   - ☐ a. A diabetic emergency
   - ☐ b. A seizure
   - ☐ c. Appendicitis
   - ☐ d. Syncope

2. **What could his co-workers have done prior to your arrival?**

3. **You conduct a primary assessment and determine that his ABCs are all normal. You see no obvious injuries. He is drowsy and disoriented. What stage of the seizure is he in?**
   - ☐ a. Clonic
   - ☐ b. Aura
   - ☐ c. Postictal
   - ☐ d. Tonic

4. **How long should you remain with the patient?**
   - ☐ a. Until he is fully responsive
   - ☐ b. Until you've confirmed that his vital signs are normal
   - ☐ c. Until he is able to respond to painful stimuli
   - ☐ d. Until he enters the postictal phase

Scenario 2

On a hot summer day, a man begins to feel ill while exercising strenuously. His breathing is rapid and he feels dizzy.

1. **After he answers your SAMPLE questions, you determine that he has diabetes and that he controls his blood sugar well through diet and exercise. He ate a good breakfast but didn't have a big lunch. He thought he had eaten enough to keep his blood sugar regulated, but he might not have taken into account the strenuous exercise. You should:**
   - ☐ a. Give him water to drink
   - ☐ b. Give him a sugary substance
   - ☐ c. Not allow him to ingest anything
   - ☐ d. Get him to take his insulin

2. **If the patient does not improve in 10 minutes, you should:**
   - ☐ a. Give him more water
   - ☐ b. Have him take more insulin
   - ☐ c. Place him in the rapid transport category
   - ☐ d. Suspect it is not a diabetic emergency

Test Your Knowledge

1. **List the four stages of generalized seizures:**

   i.

   ii.

   iii.

   iv.

2. **Which of the following is a device commonly carried by people with diabetes to test their blood sugar?**
   - ☐ a. Cincinnati scale
   - ☐ b. Pulse oximeter
   - ☐ c. Glucometer
   - ☐ d. There is no such device available to the general public

3. **What will happen if you give glucose to a hyperglycemic patient?**
   - ☐ a. It will have no effect on the patient's condition
   - ☐ b. The patient is likely to enter a diabetic coma
   - ☐ c. The patient is likely to develop tachypnea and tachycardia
   - ☐ d. The patient's condition will gradually improve over 5 to 10 minutes

4. **Match each type of seizure below with its description by placing the corresponding letter in the space provided.**

____ Febrile	**A** Characterized by brief, sudden loss of awareness; few or no convulsions
____ Absence	**B** Caused by a sudden increase in body temperature
____ Status epilepticus	**C** Lasts longer than 5 minutes or occurs repeatedly for more than 5 minutes
____ Generalized	**D** Has four distinct phases: Aura, tonic, clonic, and postictal
____ Simple partial seizure	**E** Involves convulsions in only one part of the body

5. **A patient presents with pain near the umbilical area which later becomes intense and localized in the lower right quadrant. What condition should you suspect?**
   - ☐ a. Appendicitis
   - ☐ b. Hypoglycemia
   - ☐ c. Gastrointestinal (GI) bleeding
   - ☐ d. Urinary tract infection

6. **Identify whether each of the following statements about gastrointestinal (GI) bleeding is true or false:**
   - i. GI bleeding is caused by either blunt force trauma or a bacterial infection.
     ☐ **T** or ☐ **F**
   - ii. A patient with serious GI bleeding will often experience tachycardia.
     ☐ **T** or ☐ **F**
   - iii. GI bleeding can occur in the upper or lower GI tract.
     ☐ **T** or ☐ **F**
   - iv. You must determine the cause of a patient's GI bleeding before determining whether rapid transport is required.
     ☐ **T** or ☐ **F**
   - v. Serious GI bleeding can cause blood pressure to drop sharply.
     ☐ **T** or ☐ **F**

7. **When should a patient experiencing a diabetic emergency be placed in the rapid transport category?**
   - ☐ a. When signs and symptoms persist 5 to 10 minutes after taking glucose
   - ☐ b. When signs and symptoms do not start to disappear immediately after taking glucose
   - ☐ c. When the patient's BGL is less than 4 mmol/L
   - ☐ d. When the patient has insulin-dependent diabetes

8. **What should you recommend for a patient who experiences chronic migraines?**
   - ☐ a. The patient should consider a reduced-sodium diet
   - ☐ b. The patient should consult a physician for assessment and possibly prescription medication
   - ☐ c. The patient should increase the amount of physical activity in their routine
   - ☐ d. The patient should drink more water

Poisoning

For Your Review

Read Chapter 14 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Absorbed poison:

Crowd management agents:

Depressant:

Designer drug:

Drug:

Hallucinogens:

Ingested poison:

Inhalants:

Inhaled poison:

Injected poison:

Medication:

Narcotics:

Overdose:

Poison:

Poison Control Centre:

Substance abuse:

Substance misuse:

What Would You Do?

Read the following scenario and answer the questions below.

You are called to a garage where a man has been found unresponsive. You open the side door and can see the man lying on the ground. He seems to be unresponsive but has no apparent injuries from this distance. You open the main garage door and allow air to circulate to protect against the risk of inhaled poisons.

1. **What should you do next?**
   - ☐ a. Check for burns around the patient's mouth and/or nose
   - ☐ b. Check the patient's ABCs
   - ☐ c. Confirm the patient's level of responsiveness
   - ☐ d. Have a bystander try to wake the patient while you gather supplies

2. **As you assess the patient you find that his breathing is rapid and shallow, he is unresponsive, and the skin around his mouth has a bluish tint. You see a small amount of vomit on the floor near the patient. Which of the following should you suspect as the cause of his condition?**
   - ☐ a. An ingested poison
   - ☐ b. An inhaled poison
   - ☐ c. An absorbed poison
   - ☐ d. An injected poison

3. **Which of the following should you do next?**
   - ☐ a. Give the patient something to make him vomit
   - ☐ b. Place the patient in the rapid transport category
   - ☐ c. Move the patient into the open air and monitor his condition for 5 to 10 minutes
   - ☐ d. Check the patient's arms for signs of needle marks

Test Your Knowledge

1. **Beside each of the following items, write the corresponding letter to indicate if it would cause poisoning by ingestion (A), inhalation (B), injection (C), or absorption (D). Some items may have more than one possible answer.**

   ____ Liquid bleach

   ____ Carbon monoxide

   ____ Alcohol

   ____ Chlorine gas

   ____ Cocaine

   ____ Snakes

   ____ Heroin

   ____ Ticks

   ____ Powdered chemicals

   ____ Spiders

   ____ Poison ivy

   ____ Poison sumac

   ____ Animal bites

   ____ Hydrogen sulfide

   ____ Giant hogweed

   ____ Toxic mushrooms

2. **What are the four questions you should ask when you suspect poisoning?**

   i.

   ii.

   iii.

   iv.

3. **Which of the following should you call if you suspect poisoning?**
   - ☐ a. A Poison Control Centre
   - ☐ b. The nearest hospital emergency department
   - ☐ c. Law enforcement personnel
   - ☐ d. The nearest pharmacy

4. **If a patient who is under the effects of a drug becomes violent or threatening, you should:**
   - ☐ a. Ask any bystanders to help you restrain the patient
   - ☐ b. Withdraw from the area
   - ☐ c. Attempt to provide as much care to the patient as possible
   - ☐ d. Try to determine which drug the patient has taken

5. **Identify whether each of the following statements about carbon monoxide is true or false:**
   i. Carbon monoxide poisoning always occurs quickly, resulting in unresponsiveness and death within an hour of exposure.
   ☐ **T** or ☐ **F**

   ii. Carbon monoxide poisoning can cause low blood pressure, headaches, and seizures.
   ☐ **T** or ☐ **F**

   iii. Carbon monoxide is odourless, colourless, and tasteless.
   ☐ **T** or ☐ **F**

   iv. Carbon monoxide is produced naturally during respiration.
   ☐ **T** or ☐ **F**

   v. Prolonged exposure to carbon monoxide can cause red skin and lips.
   ☐ **T** or ☐ **F**

6. **If a patient's eyes are burning due to contact with a crowd management agent, what should you do?**
   - ☐ a. Cover the patient's eyes with a cool, damp cloth
   - ☐ b. Cover the patient's eyes with dry dressings and bandage them gently in place
   - ☐ c. Rinse the patient's eyes with water for 10 to 15 minutes
   - ☐ d. Place the patient in the rapid transport category

7. **List five general signs and symptoms of poisoning:**

   i.

   ii.

   iii.

   iv.

   v.

8. **If a patient has a rash in a bull's-eye pattern, what should you suspect as the cause?**
   - ☐ a. An overdose of an injected drug
   - ☐ b. Poisoning caused by an absorbed chemical powder
   - ☐ c. Exposure to a crowd management agent
   - ☐ d. A Lyme disease infection caused by a tick bite

Environmental Illnesses

For Your Review

Read Chapter 15 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Conduction:

Convection:

Drowning:

Evaporation:

Frost nip:

Frostbite:

Heat cramps:

Heat exhaustion:

Heat stroke:

Hypothermia:

Personal flotation device (PFD):

Radiation:

Vasoconstriction:

Vasodilation:

Wind chill:

What Would You Do?

Read the following scenarios and answer the questions below.

Scenario 1

A man is working outside on a hot summer day. He begins to get a headache, which he passes off as due to a lack of sleep. He keeps working. After another half-hour, he feels weak and dizzy and needs to sit down. While he is sitting he begins to feel sick to his stomach. He wipes his forehead, which is sweaty and warm.

1. **The patient is most likely suffering from:**
   - ☐ a. Heat cramps
   - ☐ b. Heat exhaustion
   - ☐ c. Heat stroke
   - ☐ d. A heart attack

2. **What would you do for this patient?**

3. **Unfortunately, no one calls for help for him, and after a minute of sitting in the shade and eating a sandwich, he goes back to work. After an hour or so, he feels his heart racing and feels ill again. His skin feels as if it is on fire, and he has stopped sweating. The patient is most likely suffering from:**
   - ☐ a. Heat cramps
   - ☐ b. Heat exhaustion
   - ☐ c. Heat stroke
   - ☐ d. Food poisoning

4. **How could he have prevented progressing into a more severe heat emergency?**

Scenario 2

A 50-year-old woman has gone walking during her lunch break on a cold winter day. She is wearing a warm coat and hat, jeans, and thin gloves. She is out longer than she expected to be and when she returns to the office she is complaining of fatigue, a stinging sensation in her face, and a lack of feeling in her fingers and the skin of her legs. Her mental status is normal.

1. **The patient is most likely suffering from:**
   - ☐ a. Frostbite
   - ☐ b. Mild hypothermia
   - ☐ c. Moderate hypothermia
   - ☐ d. A cold

2. **During your assessment you notice that the patient's fingers appear white and that small clear blisters are beginning to form. What should you do next?**
   - ☐ a. Immerse the patient's hands in cool (not cold) water until sensation returns
   - ☐ b. Run the patient's hands under hot water (as hot as she can stand) for 5 minutes
   - ☐ c. Immerse the patient's hands in warm water until the skin begins to turn red and is warm to the touch
   - ☐ d. Keep the patients' hands from thawing until she can be examined by a physician

3. **Indicate with checkmarks which of the following would be appropriate for this patient after the affected area has thawed:**
   - ☐ i. Providing warm, sugary beverages
   - ☐ ii. Encouraging the patient to be assessed by a physician as soon as possible
   - ☐ iii. Wrapping the patient's hands in warm, moist dressings
   - ☐ iv. Placing dressings between the patient's fingers
   - ☐ v. Providing a small amount of warm brandy
   - ☐ vi. Advising the patient to take an over-the-counter nonsteroidal anti-inflammatory drug (NSAID)
   - ☐ vii. Keeping the affected area lower than the level of the heart

- ☐ viii. Protecting the area with dry, sterile, non-adherent dressings
- ☐ ix. Advising the patient to stay out of the cold until the area has fully healed

Test Your Knowledge

1. **Identify whether each list of signs and symptoms corresponds to heat cramps, heat exhaustion, or heat stroke:**
   i. Warm, moist skin, anxiety, dizziness

   _____

   ii. Normal pulse, moist skin, headache

   _____

   iii. Irritable, bizarre behaviour, severe headache

   _____

   iv. Severe muscle contractions, normal mental state, warm skin

   _____

   v. Dry skin, rapid respiration

   _____

2. **Identify whether each of the following signs and symptoms requires a heat-stressed patient to be placed in the rapid transport category:**
   - ☐ i. Rapid pulse
   - ☐ ii. Fainting
   - ☐ iii. Severe muscle contractions
   - ☐ iv. Warm, moist skin
   - ☐ v. Dry, hot skin
   - ☐ vi. Shallow respirations

3. **List five risk factors that may make a patient more prone to heat- or cold-related emergencies.**
   i.

   ii.

   iii.

   iv.

   v.

4. **Which of the following best describe the pulse and respiration of a patient suffering from severe hypothermia?**
   - ☐ a. Tachycardia and tachypnea
   - ☐ b. Bradycardia and bradypnea
   - ☐ c. Tachycardia and bradypnea
   - ☐ d. Normal pulse and breathing

5. **If you suspect that a patient has severe hypothermia, how should you modify your primary assessment?**
   - ☐ a. Take the patient's temperature before checking for a pulse
   - ☐ b. Check for signs of pulse and respiration for up to 60 seconds
   - ☐ c. Check for the patient's pulse before checking respiration
   - ☐ d. Bring the patient into a warmer environment before beginning the assessment

6. **Refusing water, a changing level of responsiveness, and vomiting are all signs that a heat-stressed patient:**
   - ☐ a. Has heat exhaustion
   - ☐ b. Should be in the rapid transport category
   - ☐ c. Has a pre-existing medical condition
   - ☐ d. Is recovering from the effects of heat exposure

7. **Identify whether each of the following statements about drowning is true or false:**
   i. You should not attempt to swim to a drowning patient without special training.
   ☐ **T** or ☐ **F**

   ii. You should not attempt to resuscitate a patient who has been submerged for more than 10 minutes.
   ☐ **T** or ☐ **F**

   iii. Any patient who survives a drowning incident should be assessed by a physician immediately.
   ☐ **T** or ☐ **F**

   iv. Most deaths in cold water are caused by hypothermia, not drowning.
   ☐ **T** or ☐ **F**

   v. The colder the water, the less chance there is of resuscitating a drowning patient.
   ☐ **T** or ☐ **F**

Pregnancy, Labour, and Delivery

For Your Review

Read Chapter 16 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Abruptio placentae:

Amniotic sac:

Breech birth:

Contraction:

Crowning:

Ectopic pregnancy:

Labour:

Miscarriage:

Placenta:

Placenta previa:

Postpartum bleeding:

Prolapsed cord:

Third trimester bleeding:

Umbilical cord:

Uterine rupture:

What Would You Do?

Read the following scenario and answer the questions below.

On a snowy January day, you are called to the office of a pregnant woman who is due to go on maternity leave in a week and is having abdominal cramps. She has had them all day, but they have been getting steadily stronger. She is sitting in a chair holding her stomach.

1. **What is your initial impression of the patient's condition?**
   - ☐ a. She is experiencing Braxton Hicks contractions
   - ☐ b. She is experiencing an ectopic pregnancy
   - ☐ c. She is going into labour
   - ☐ d. She is experiencing placenta previa

2. **After a few minutes, a gush of clear fluid soaks her pants. This would indicate:**
   - ☐ a. The amniotic sac has ruptured
   - ☐ b. The placenta is being expelled
   - ☐ c. The woman has had a miscarriage
   - ☐ d. The baby is crowning

3. **She tells you that the pain lasts a couple of minutes and then goes away for a couple of minutes. Checking your watch, you notice that the pains last approximately 70 seconds and are approximately 2 minutes apart. You have requested more advanced medical care, but the snowy roads mean the responders may be delayed. You should:**
   - ☐ a. Transport the woman to the hospital
   - ☐ b. Have the woman lie down in a position of comfort
   - ☐ c. Pack the woman's vagina with sterile dressings
   - ☐ d. Tell the woman to try to delay the birth as much as possible

4. **You assess the woman and see that the baby is crowning. The woman has an urge to push and feels as if she needs to have a bowel movement. After the baby is delivered, which of the stages of labour has just ended?**
   - ☐ a. First
   - ☐ b. Second
   - ☐ c. Third
   - ☐ d. Fourth

5. **What happens during the next stage of labour?**

6. **The baby begins crying spontaneously and seems to be breathing normally. He has a heart rate of 102 bpm. What should you do next?**
   - ☐ a. Dry the neonate and help him to maintain a normal body temperature
   - ☐ b. Begin compression-only CPR
   - ☐ c. Perform CPR at a ratio of 3:1 for 30 seconds
   - ☐ d. Provide blow by supplemental oxygen at a rate of 4 litres per minute

Test Your Knowledge

1. **What are the four stages of labour?**

   i.

   ii.

   iii.

   iv.

2. **Why is a prolapsed cord dangerous?**

3. **How does slow, deep breathing through the mouth help a woman in labour?**
   - ☐ a. It aids in muscle relaxation
   - ☐ b. It distracts her
   - ☐ c. It ensures adequate oxygen for the mother and baby
   - ☐ d. All of the above

4. **When you assess a neonate, you find a pulse of 90. You should:**
   - ☐ a. Begin CPR at a rate of 3:1
   - ☐ b. Begin ventilation using a neonate or pediatric bag-valve-mask (BVM) with room air
   - ☐ c. Continue with your assessment of the neonate
   - ☐ d. Treat the neonate for shock

5. **If you see a loop of umbilical cord coming out of the vaginal opening, this is called:**
   - ☐ a. Prolapsed cord
   - ☐ b. Breech birth
   - ☐ c. Placenta previa
   - ☐ d. Limb presentation

6. **During which of the following childbirth complications would you place your fingers in a "V" position around the baby's mouth and nose?**
   - ☐ a. Prolapsed cord
   - ☐ b. Breech birth
   - ☐ c. Placenta previa
   - ☐ d. Ectopic pregnancy

7. **If you see the umbilical cord wrapped around the baby's neck, you should:**
   - ☐ a. Gently move the cord over the head or slip it over the baby's shoulders as they emerge
   - ☐ b. Pull gently on the baby's shoulders as they emerge to speed up the delivery
   - ☐ c. Apply firm pressure to the baby's head to slow down the delivery, then unwrap the cord
   - ☐ d. Increase oxygen flow to the mother

8. **If a neonate is showing signs of respiratory distress, you should:**
   - ☐ a. Begin chest thrusts and back blows
   - ☐ b. Flick the soles of the baby's feet with your fingers
   - ☐ c. Suction the mouth or nose with a bulb syringe
   - ☐ d. Begin CPR at a rate of 3:1

9. **To control vaginal bleeding after the delivery of the baby, you can:**
   - ☐ a. Pack the vagina with sterile dressings and elevate the mother's legs
   - ☐ b. Massage the abdomen and have the mother assume a semi-sitting position
   - ☐ c. Massage the abdomen and encourage the mother to nurse the baby
   - ☐ d. Have the mother assume the recovery position

10. **Normally, the placenta will come out of the vaginal opening:**
    - ☐ a. Within 20 minutes of the delivery of the baby
    - ☐ b. Immediately before the baby is delivered
    - ☐ c. Approximately one hour after the delivery of the baby
    - ☐ d. During the fourth stage of labour

11. **Indicate whether each of the following conditions requires the patient to be placed in the rapid transport category:**

    - ☐ i. Breech birth
    - ☐ ii. Limb presentation
    - ☐ iii. Braxton Hicks contractions
    - ☐ iv. Prolapsed cord
    - ☐ v. Third trimester bleeding
    - ☐ vi. Ectopic pregnancy
    - ☐ vii. Spontaneous abortion (miscarriage)
    - ☐ viii. Multiple births

Special Populations

For Your Review

Read Chapter 17 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Alzheimer's disease:

Deafblind:

Developmental disability:

Hearing impairment:

Mental disability:

Shaken Baby Syndrome (SBS):

Sudden infant death syndrome (SIDS):

Visual impairment:

What Would You Do?

Read the following scenario and answer the questions below.

You respond to a call and find a bariatric patient slumped in a chair in his office's break room. He is unable to stand and is complaining of pain in his abdomen.

1. **How should you modify your SAMPLE questions to accommodate this bariatric patient?**
   - ☐ a. You should avoid asking for details about his past medical history
   - ☐ b. You should ask about his oral intake for at least the last 24 hours
   - ☐ c. You should ask whether he knows his baseline blood pressure
   - ☐ d. You should ask the same questions you would ask any patient

2. **What are some specific challenges you might face in assessing this patient?**

3. **List three medical conditions that are more common in bariatric patients:**

   i.

   ii.

   iii.

Test Your Knowledge

1. **What are the six basic guidelines to follow when assessing a child?**

   i.

   ii.

   iii.

   iv.

   v.

   vi.

2. **Fill in the table with the approximate age range and at least one specific thing to consider when assessing pediatric patients at each stage of development.**

Stage of Development	Approximate Age Range	Things to Consider
Neonates		
Infants		
Toddlers		
Preschoolers		
School-aged Children		
Adolescents		

3. **Fill in the following table showing the anatomical and physiological differences in pediatric patients compared with adults, and the clinical significance of these differences.**

Difference	Clinical Significance
Abdominal muscles are used for respiration	
	SMR can be more difficult
Skin is thinner	
	Obtaining a good mask seal can be difficult
Respiratory rate is higher	
	More vulnerable to effects of cold stress

4. **Indicate whether each of the following statements refers to croup or epiglottitis by writing "c" or "e" next to each one.**

   ____ It is usually triggered by an acute viral infection.

   ____ It can quickly cause a life-threatening airway obstruction.

   ____ It typically causes a child to drool.

   ____ The condition may improve if the patient is exposed to cool air.

   ____ It is caused by a bacterial infection.

   ____ It requires the patient to be placed in the rapid transport category.

5. **Which of the following is important to do when caring for someone with a visual impairment?**
   - ☐ a. Stand directly in front of the patient so he or she can see your shadow
   - ☐ b. Stay very quiet so the patient can hear what else is going on nearby
   - ☐ c. Speak loudly and enunciate every word so the patient can hear you properly
   - ☐ d. Explain what you are doing, especially before touching the patient

6. **What is your main goal when treating a palliative care patient?**
   - ☐ a. To delay the death of the patient for as long as possible
   - ☐ b. To encourage the patient to move into a hospital for full-time care
   - ☐ c. To comfort the patient's family and help them feel they're doing everything possible
   - ☐ d. To improve quality of life and make the patient as comfortable as possible

7. **When caring for a patient who has a service animal, what should you do?**
   - ☐ a. Keep the animal close to the patient, if possible, but avoid interacting with it
   - ☐ b. Close the animal in another room or have a bystander keep it out of sight
   - ☐ c. Keep the animal close and reassure the animal by speaking calmly to it
   - ☐ d. Have a bystander keep the animal within sight of the patient but at least 15 feet away

Crisis Intervention

For Your Review

Read Chapter 18 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Physical assault:

Sexual assault:

Suicide:

What Would You Do?

Read the following scenario and answer the questions below.

You arrive at the scene of a sexual assault, where you find a 24-year-old woman sobbing and holding her knees to her chest. Her clothes are torn, and she has minor visible scratches on her arms. Her boyfriend has also arrived and is talking to a law enforcement officer.

1. **You should treat the area as a crime scene.**
   ☐ **T** or ☐ **F**

2. **Which of the following should you do?**
   - ☐ a. Have the woman wash herself so you can see if there are any wounds that need care
   - ☐ b. Remove the woman's clothing to check for other injuries
   - ☐ c. Cover the woman and keep bystanders away
   - ☐ d. Ask the woman about the specifics of the assault

3. **When the woman's boyfriend is finished with the law enforcement officer, he should:**
   - ☐ a. Remain with the woman to provide emotional support (if the woman prefers his presence)
   - ☐ b. Leave the area so she can have privacy
   - ☐ c. Help her to change her clothes and wash her face
   - ☐ d. Look around for clues as to what happened

Test Your Knowledge

1. **When dealing with a scene involving a physical assault, what is your first concern?**
   - ☐ a. The patient's physical injuries
   - ☐ b. The emotional state of the patient and any bystanders
   - ☐ c. Documenting everything you see for police reports
   - ☐ d. Your own safety

2. **If you suspect that a child has been the victim of assault, which of the following are you legally required to do?**
   - ☐ a. Look for clues to determine whether the child's version of events is true
   - ☐ b. Ask the child's caregiver(s) whether they would like you to report the crime to police
   - ☐ c. Prevent anyone else from speaking to the child until a law enforcement officer is present
   - ☐ d. Report the crime to your provincial or territorial child protection service

3. **If a patient makes statements about considering suicide, what should you do?**
   - ☐ a. Distract the patient by asking about topics of general interest
   - ☐ b. Attempt to convince the patient that life is worth living
   - ☐ c. Document the statements and report them when care is transferred
   - ☐ d. Place the patient in the rapid transport category

4. **If a patient seems to be experiencing a psychotic episode and you believe there is a risk of violence, how should you ensure your own safety?**
   - ☐ a. Ask any bystanders to help you restrain the patient
   - ☐ b. Remain at a safe distance and request law enforcement personnel
   - ☐ c. Leave the scene
   - ☐ d. Tell the patient that you will not provide care until he or she calms down

Reaching, Lifting, and Extricating Patients

For Your Review

Read Chapter 19 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Body mechanics:

Chocking:

Patient entrapment:

What Would You Do?

Read the following scenario and answer the questions below.

You arrive at the scene of a motor vehicle collision. A car has skidded off the road and crashed into a tree. The vehicle is sitting on firm, level ground, and the front of the car is resting against the tree. The front of the car has sustained significant damage and the driver's side airbag has deployed. The driver appears unresponsive as you approach, and you cannot see any other occupants.

1. **What is your first priority in this situation?**
   - ☐ a. Accessing the patient so you can begin your assessment
   - ☐ b. Stabilizing the vehicle
   - ☐ c. Looking for any additional patients in and around the vehicle
   - ☐ d. Checking the scene for hazards

2. **You have ensured that the vehicle is stable and that there are no hazards around it. As you approach the vehicle you can see that the patient is hemorrhaging from a wound in her lower leg. The driver's door is locked. What should you do next?**
   - ☐ a. Check to see whether any of the vehicle's doors are unlocked
   - ☐ b. Break a window as far from the patient as possible, open the door from the inside, and begin caring for the patient
   - ☐ c. Break the driver's window, open the door from the inside, and begin caring for the patient
   - ☐ d. Call a towing company or auto association to help you access the patient

3. **Once you have access to the patient you see that she has an open fracture of the leg, which is the source of the hemorrhage. You cannot reach the injury but can see that moving her would likely result in additional damage to her leg. Should this patient be moved? Why or why not?**

Test Your Knowledge

1. **What are the five basic principles of body mechanics used to reduce the risk of injury?**

   i.

   ii.

   iii.

   iv.

   v.

2. **What are the three general situations that require you to move a patient in an emergency?**

   i.

   ii.

   iii.

3. **What are the five factors to consider when deciding whether to move a patient?**

   i.

   ii.

   iii.

   iv.

   v.

4. **Identify whether each of the following statements about airbags is true or false:**
   i. Once an airbag has deployed it poses no further risk to responders.
      ☐ **T** or ☐ **F**
   ii. The location of the airbags is the same from one vehicle to the next.
      ☐ **T** or ☐ **F**
   iii. Electronic devices that are plugged into the vehicle (e.g. cell phones) can cause power feedback, causing airbags to deploy.
      ☐ **T** or ☐ **F**
   iv. Even after disconnecting the battery and any electronic devices in the vehicle, you should assume airbags are live and could deploy at any moment.
      ☐ **T** or ☐ **F**
   v. You should always place a large, solid object between yourself and an airbag deployment zone to reduce your risk if the airbag deploys unexpectedly.
      ☐ **T** or ☐ **F**

5. **A patient is unresponsive and has a suspected spinal injury. You need to move him away from a fire. Which of the following moves should you use?**
   ☐ a. Clothes drag
   ☐ b. Extremity lift
   ☐ c. Walking assist
   ☐ d. Any of the above

6. **In which of the following situations would you move a patient before providing care?**
   ☐ a. A patient has fainted in a narrow hallway and people are unable to get by
   ☐ b. A patient is having a seizure in a shopping mall and a crowd has gathered around
   ☐ c. A patient is sitting in a car in his driveway, not breathing
   ☐ d. A patient is sitting on a busy sidewalk complaining of breathing difficulties and chest pain

7. **If you are required to break a vehicle window to gain access to injured patients inside, you should:**
   - ☐ a. Instruct the patients to move to the opposite side of the vehicle
   - ☐ b. Instruct the patients to cover their faces before you break the window
   - ☐ c. Instruct one of the patients to break the window from the inside so the glass will be pushed out and away
   - ☐ d. Break a small hole in the window, pass PPE in to the patients, then break the rest of the glass once the patients have donned the PPE

8. **Identify the stretcher or lifting device that corresponds to each of the descriptions below:**

Stretcher or Lifting Device	Description
	A long, rectangular metal or plastic frame with a wire mesh or plastic liner
	A device used for transporting patients in a seated position
	A rigid stretcher that can be separated into two pieces
	A stretcher that can be lowered or raised manually using release handles (some may be powered electrically)
	Two wooden poles with canvas or plastic stretched between them
	A long, rigid board approximately 1.8 metres (6 feet) long
	A device with no rigid structure of its own that can wrap around a patient

Transportation

For Your Review

Read Chapter 20 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Right-of-way:

Routine maintenance:

Upwind:

Test Your Knowledge

1. **List five guidelines to follow when operating an emergency vehicle:**

   i.

   ii.

   iii.

   iv.

   v.

2. **You can drive a private vehicle as if it were an emergency vehicle provided you are responding to a life-threatening emergency situation.**
   ☐ **T** or ☐ **F**

3. **When you are responding to an emergency scene, your use of warning devices should be based on:**
   ☐ a. Local protocols
   ☐ b. Your speed
   ☐ c. Provincial/territorial motor vehicle laws
   ☐ d. Both a and c

4. **When driving an emergency vehicle, a responder is exempt from seatbelt laws.**
   ☐ **T** or ☐ **F**

5. **Which of the following can determine whether you should use a vehicle's warning devices?**
   ☐ a. The type of call you are responding to
   ☐ b. Provincial/territorial motor vehicle laws
   ☐ c. Local protocols
   ☐ d. All of the above

6. **Identify whether each of the following statements about air medical transportation is true or false.**
   i. You should always approach fixed-wing aircraft from the rear.
      ☐ **T** or ☐ **F**
   ii. If an aircraft is landing at night you should use flares to illuminate the landing site.
      ☐ **T** or ☐ **F**
   iii. If a helicopter has landed on an incline you should approach from the downhill side.
      ☐ **T** or ☐ **F**
   iv. You should stay in view of the flight crew at all times when near an aircraft.
      ☐ **T** or ☐ **F**
   v. Once the aircraft has parked you should approach with the patient immediately.
      ☐ **T** or ☐ **F**

7. **List three hazards that would make an area unsuitable for a helicopter landing site:**

   i.

   ii.

   iii.

Multiple-Casualty Incidents

For Your Review

Read Chapter 21 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

CBRNE:

Directed First Aid:

Incident command system (ICS):

Multiple casualty incident (MCI):

Safety perimeter:

Security perimeter:

START system:

Triage:

What Would You Do?

Read the following scenario and answer the questions below.

You arrive at the scene of a passenger train derailment. You are put in charge of triaging one of the cars, which has hopped the track and gone into the ditch. You are given the go-ahead to enter the car as it has been stabilized.

1. **According to the START system, what is the first thing you should do upon entering the car?**
2. **You find no patients in the minor category and begin triaging the remaining patients. The first patient you assess receives a black tag. What category have you placed that patient in?**
3. **What conditions may you have found to warrant a black tag?**

4. **You encounter a 43-year-old patient who is anxious and looks pale. He has a respiration rate of 24 breaths per minute, his radial pulse is present, and he is alert and oriented. What colour is the tag he should receive?**
   - ☐ a. Black/grey
   - ☐ b. Red
   - ☐ c. Yellow
   - ☐ d. Green

5. **The next patient you assess is unresponsive and not breathing. You see that her tongue is at the back of her throat, but when you open her airway she does not begin to breathe. What should you do next for this patient?**
   - ☐ a. Place a black or grey tag on the patient and move on to the next one
   - ☐ b. Position the patient in a way that will maintain an open airway and place a red tag on the patient
   - ☐ c. Perform two cycles of CPR (30 compressions and 2 breaths), then reassess the patient
   - ☐ d. Place the patient in the rapid transport category

Test Your Knowledge

1. **You are dispatched to a reported collapse of a building, possibly due to an explosion. The incident commander tells you to perform triage and follow up with a report.**

   You survey the scene and begin triage of the patients listed below. For each patient, indicate their triage category and provide the reason for your decision.

Condition	Information	Triage Category	Reason for Decision
Sucking chest wound	Respiration: 60 breaths per minute Pulse (radial): absent Level of responsiveness (LOR): alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
No apparent injuries	Respiration: 14 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Impaled metal rod in left eye	Respiration: 16 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
No visible injuries	Respiration: absent Pulse (radial): absent LOR: unresponsive	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Skin moist and clammy; states he is diabetic	Respiration: 20 Pulse (radial): absent LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Severe difficulty breathing; chest sinks in during inhalation	Respiration: 20 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Amputated right arm; controlled bleeding	Respiration: over 32 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	

Condition	Information	Triage Category	Reason for Decision
Chest pain (sudden onset); breathing regular	Respiration: under 24 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Head wound with brain matter visible	Respiration: absent Pulse (radial): absent LOR: unresponsive	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
30% full-thickness burns and 50% partial-thickness burns	Respiration: absent Pulse (radial): present LOR: unresponsive	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Pinned under pillar	Respiration: under 20 Pulse (radial): present LOR: confused	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Broken elbow	Respiration: under 18 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Bleeding scalp wound; facial abrasions; broken nose	Respiration: over 34 Pulse (radial): present LOR: confused	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Compound femur fracture	Respiration: under 26 Pulse (radial): absent LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Impaled glass pane in abdomen	Respiration: under 20 Pulse (radial): absent LOR: confused	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Minor cuts and scrapes; injured ankle	Respiration: under 14 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Unable to move; no verbal response	Respiration: under 12 Pulse (radial): present LOR: awake but stares into space	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	
Pregnant (8 months); abdominal pressure; urge to push; injured leg	Respiration: under 18 Pulse (radial): present LOR: alert and oriented	____ Minor ____ Delayed ____ Immediate ____ Dead/non-salvageable	

2. **Which of the following is NOT checked in the START process?**
   - ☐ a. Circulation
   - ☐ b. Blood pressure
   - ☐ c. Level of responsiveness
   - ☐ d. Respiration

3. **When is triage necessary?**
   - ☐ a. Whenever two or more patients require care simultaneously
   - ☐ b. Whenever two or more patients are injured in a CBRNE event
   - ☐ c. Whenever only one responder is available to provide care
   - ☐ d. Whenever there are more patients than responders

4. **When checking an adult patient's circulation using the START system, which of the following do you check?**
   - ☐ a. Femoral pulse
   - ☐ b. Carotid pulse
   - ☐ c. Brachial pulse
   - ☐ d. Radial pulse

5. **List five advantages of using an incident command system (ICS):**

   i.

   ii.

   iii.

   iv.

   v.

6. **While performing triage, you find that a patient's breathing is normal, but you cannot find a radial pulse. You should:**
   - ☐ a. Look for the carotid pulse
   - ☐ b. Check the patient's level of responsiveness
   - ☐ c. Colour-code the patient black or grey
   - ☐ d. Colour-code the patient red

7. **The first thing to do when performing triage using the START system is:**
   - ☐ a. Locate all the patients
   - ☐ b. Clear the area of all patients in the minor category
   - ☐ c. Clear away all debris that could become a hazard
   - ☐ d. Care for anyone who has a life-threatening condition

8. **What are the only two interventions a responder should perform for patients during triage?**

   i.

   ii.

9. **How is triage different in a CBRNE event?**
   - ☐ a. The patients' level of responsiveness should not be assessed
   - ☐ b. Patients should be assessed only by specialized personnel with appropriate PPE
   - ☐ c. Patients with dyspnea should be automatically placed in the immediate care category
   - ☐ d. Patients should be instructed to assess themselves or one another, if possible

10. **When is directed first aid required?**
    - ☐ a. When there are more patients than there are responders
    - ☐ b. When patients in a CBRNE event have suffered only minor injuries
    - ☐ c. When patients within the security perimeter require care
    - ☐ d. When patients cannot be reached by responders or are significantly contaminated by a CBRNE incident

11. **If possible, how should you approach the scene of a CBRNE incident?**
    - ☐ a. From an uphill and downwind direction
    - ☐ b. From an uphill and upwind direction
    - ☐ c. From a downhill and upwind direction
    - ☐ d. From a downhill and downwind direction

12. **In a CBRNE event, who should establish perimeters around the affected area?**
    - ☐ a. The first responders on the scene
    - ☐ b. The incident commander
    - ☐ c. The local public health authority
    - ☐ d. The first personnel with specialized PPE to arrive

Pharmacology

For Your Review

Read Chapter 22 of *Emergency Care for Professional Responders*, then complete the following activities.

Key Terms

Referring to *Emergency Care for Professional Responders*, define the following terms:

Administering medication:

Assisting with medication:

What Would You Do?

Read the following scenario and answer the questions below.

You are assessing a patient who is experiencing intense pain from a recent surgery. She tells you her name and that her doctor recently prescribed her medication she is supposed to take in situations like this, but that she hasn't had to use them before. She tells you the name of the medicine and asks you to retrieve it from her purse on the other side of the room. You find a prescription bottle of pills and return with it to the patient.

1. **The label on the bottle says "Take one pill as needed for pain, to a maximum of 4 per day". What should you do next?**
   - ☐ a. Place one of the pills in the patient's mouth
   - ☐ b. Place one of the pills in the patient's hand
   - ☐ c. Open the bottle and hand it to the patient
   - ☐ d. Ensure the Six Rights of Medication are met

2. **You confirm that the patient's name is on the bottle and that the pills are to be taken orally. Which of the Six Rights of Medication, if any, have not been met?**
   - ☐ a. Right person, right dosage
   - ☐ b. Right time, right route
   - ☐ c. Right medication, right documentation
   - ☐ d. All of the Six Rights of Medication have been met

3. **In addition to confirming that the Six Rights have been met, which of the following should you do?**
   - ☐ a. Confirm that the medication has not expired
   - ☐ b. Confirm that the prescribing doctor has a valid, current license
   - ☐ c. Confirm that the patient's description of her symptoms matches her presentation
   - ☐ d. Confirm that the patient is who she claims to be

4. **In addition to listing the time, dose, route, and effect, which of the following should you include in your documentation?**
   - ☐ a. The name of the physician who prescribed the medication
   - ☐ b. Information about how you confirmed the Six Rights of Medication
   - ☐ c. Any potential side effects listed on the medication bottle
   - ☐ d. The patient's initial presentation

Test Your Knowledge

1. **Indicate whether each action below is *assisting with medication (AwM)* or *administering medication (AM)*.**

   _____ Opening the lid of a pill bottle

   _____ Placing pills in a patient's hand

   _____ Opening an epinephrine auto-injector

   _____ Injecting a medication

   _____ Placing medication in a patient's mouth

   _____Unwrapping a transdermal patch

   _____ Reading a medication's label aloud

   _____ Placing a transdermal patch on a patient's skin

   _____ Pushing pills out of a blister pack

   _____ Spraying medication into the patient's nose

2. **Complete the following table identifying the Six Rights of Medication and defining each one.**

1. Right	
2. Right	
3. Right	
4. Right	
5. Right	
6. Right	

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