CANADIAN
RED CROSS

Emergency Care Workbook

Emergency Medical Responder

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EMERGENCY CARE WORKBOOK

This publication is available in English and French.

The terms "he" and "she" have been used throughout the document to ensure representation of both genders.

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CONTENTS

The Responder

For Your Review
Read Chapter 1 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Abandonment: _____

Confidentiality: _____

Consent: _____

Critical incident stress management: _____

Duty to act: _____

Emergency medical responder (EMR): _____

Emergency medical services (EMS) system: _____

First responder: _____

Good Samaritan laws: _____

Interpersonal communication: _____

Medical control: _____

Medical terminology: _____

Negligence: _____

Refusal of care: _____

Standard of care: _____

Do You Know…

1. List six signs and symptoms of critical incident stress:

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

   vi. _____

What Would *You* Do?

Read the following scenario and answer the questions below.

While you are driving to work one morning, you see 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 several 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 decide to act in this situation, your first concern should be to:
   - ☐ a. Bandage the wounds
   - ☐ b. Determine if 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

Circle the best answer to each of the following questions.

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. As a responder, you should have good communication skills. Which of the following people is a responder least likely to need to communicate with?
   - ☐ a. The patient and his family
   - ☐ b. His partner or co-workers
   - ☐ c. Bystanders
   - ☐ d. The lawyer of the patient

3. When obtaining consent before caring for someone, which of the following do you NOT have to do?
   - ☐ a. Have the person sign the 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. All documentation should be:
   - ☐ a. Perfectly handwritten, accurate, and without error
   - ☐ b. Bulleted, with the diagnosis clearly indicated
   - ☐ c. Legible, professional, and complete
   - ☐ d. Typed, on time, and signed by the patient

5. Ending care of a patient without his 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. What are the first two critical actions that someone from the general public should take in an emergency?

- [ ] a. Recognize that an emergency exists and begin prompt care
- [ ] b. Recognize that an emergency exists and obtain more advanced medical care
- [ ] c. Obtain more advanced medical care and move the patient out of any hazardous situations
- [ ] d. Transport the patient to a hospital and wait until the family arrives

7. Critical incident stress management is a process meant solely for emergency responders who have had to deal with a high-stress incident. T or F

8. Which of the following is NOT a common component of a radio system?

- [ ] a. Base station
- [ ] b. Mobile radios
- [ ] c. Global positioning system units
- [ ] d. Repeaters

9. If you are speaking with a physician, it is important that you:

- [ ] a. Write down everything he says
- [ ] b. Repeat any orders back to the physician
- [x] c. Present all information rapidly
- [ ] d. Verify that everything said by the physician is located within your written protocols

10. Which of the following should you keep in mind when using a radio?

- [ ] a. Speak slowly and clearly
- [ ] b. Begin speaking at the same time you push the "push to talk" button
- [ ] c. Hold the radio right up to your mouth
- [ ] d. Relay all information you have collected at the scene up to that point

The Emergency Scene

For Your Review
Read Chapter 2 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Emergency move: _____

Hazardous materials: _____

Do You Know…

1. What hazards do you see at this scene?

2. What would you do to control this scene?

3. At the site of a collision, list the three situations in which you might park in a roadway to block traffic.
   i. _____
   ii. _____
   iii. _____

4. List the five key elements a responder should pay attention to when approaching an emergency scene.
   i. _____
   ii. _____
   iii. _____
   iv. _____
   v. _____

Fill in the Blanks

1. Complete the Table
   Fill in the situations that correspond to each appropriate set of precautions to take.

Situation	Precautions
	a. Check doors before opening them, stay close to the floor, avoid using elevators
	b. Ensure the scene is safe, avoid touching anything unless it hinders care, document everything
	c. Put up reflectors, flares, or lights well back from the scene, for visibility
	d. Look for placards on transportation vehicles, clues such as spilled substances, leaking containers, or unusual odours
	e. Get directions from the incident commander; triage appropriately

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 causing the top of the tree to be angled over the truck.

1. Ideally, what personal protective equipment should you wear to ensure your safety at the scene?

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

2. As you approach the scene, you see a placard indicating a flammable substance is on board. Which of the following would be an appropriate action to take?

☐ a. Open the truck doors and investigate what the substance is
☐ b. Ensure that the appropriate services to deal with hazardous materials have been notified
☐ c. Have bystanders gather buckets of water in case of fire
☐ d. Check to see if any houses nearby have a chainsaw so you can cut down the tree

3. 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, and he exits the truck on his own power, where another responder tends to him. You now make your way to the car and its passengers. What should be your first step?

☐ a. Climb into the car to assess the people
☐ b. Ask the people in the car to climb out
☐ c. Ensure the car has been stabilized
☐ d. Gather people to help you roll the car upright

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Which of the following is NOT a primary responsibility of the responder at an emergency scene?

☐ a. Ensure safety for yourself and any bystanders
☐ b. Gain access to the patient(s)
☐ c. Contact the friends and/or family of the patient
☐ d. Determine any threats to the patient's life

2. If there is a downed electrical wire at an emergency scene, how far away should the bystanders be moved?

☐ a. Twice the length of the span of the wire
☐ b. There is no specific place to which they should be moved
☐ c. Half the distance between the two poles from which the broken wire has been strung
☐ d. The distance from the break in the wire to the closest power pole

3. If you are in a burning building, which is the best way to get out safely?

- ☐ a. Cover your mouth and nose with a moist cloth and walk to the nearest exit
- ☐ b. Jump out the nearest window
- ☐ c. Cover your mouth and nose with a moist cloth and stay close to the floor
- ☐ d. None of the above

4. Which of the following are clues 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

5. An emergency that may overwhelm the capabilities of an EMS system is called:

- ☐ a. Simple Triage And Rapid Treatment (START)
- ☐ b. Triage
- ☐ c. A multiple casualty incident
- ☐ d. Critical incident stress

6. The system used to control and direct the resources at an emergency scene is referred to as the:

- ☐ a. Incident command system
- ☐ b. Simple Triage And Rapid Treatment system
- ☐ c. Emergency medical services system
- ☐ d. Dispatch system

7. To have an effective plan of action, which of the following are crucial?

- ☐ a. Advanced care training and a large human resource base
- ☐ b. Advance preparation and periodic rehearsal
- ☐ c. A complex medical communication network
- ☐ d. Specialized equipment and vehicles

8. When pulling someone out of deep water, it is important to:

- ☐ a. Enter the water and hold onto the patient securely
- ☐ b. Yell for help as you wade in to get the patient
- ☐ c. Keep as low as possible and use something to reach the patient from a stable point
- ☐ d. Both a and b

Preventing Disease Transmission

For Your Review
Read Chapter 3 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, 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: _____

_____

Do You Know…

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

   i. _____

   _____

   ii. _____

   _____

   iii. _____

   _____

   iv. _____

   _____

2. List five precautions you can take to prevent disease transmission:

   i. _____

   _____

   ii. _____

   _____

   iii. _____

   _____

   iv. _____

   _____

   v. _____

   _____

3. An exposure control plan should include the following elements:

   i. _____

   _____

   ii. _____

   _____

   iii. _____

   _____

What Would *You* Do?

Read the following scenario and answer the questions below.

You are called to a residence because a 15-year-old teenager is worried about her grandfather, who has fallen and cut his leg. Upon talking to her, you learn that her grandfather 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 precautions, if any, should you take when caring for the grandfather?

2. Aside from the cut on his leg, what ailment might the grandfather be suffering from?

- ☐ a. Meningitis
- ☐ b. Tuberculosis
- ☐ c. Kidney stones
- ☐ d. Chickenpox/shingles

3. If someone catches an infection from 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

Circle the best answer to each of the following questions.

1. Which of the following can be transmitted by airborne particles?

- ☐ a. HIV/AIDS
- ☐ b. Hepatitis and meningitis
- ☐ c. Meningitis and tuberculosis
- ☐ d. Herpes and tuberculosis

2. 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. Notify your supervisor and any other responder personnel involved
- ☐ c. Determine what type of disease it is
- ☐ d. Contact the Poison Control Centre

3. 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

4. Which of the following can be transmitted by contaminated food?

- ☐ a. Tuberculosis and rubella
- ☐ b. Typhus and diphtheria
- ☐ c. Meningitis and hepatitis
- ☐ d. Meningitis and herpes

5. Which of the following are basic components of the immune system?

- ☐ a. White blood cells
- ☐ b. Platelets
- ☐ c. Antigens
- ☐ d. Red blood cells

6. Immunizations are available for which of the following diseases?

- ☐ a. Hepatitis A and B, polio, and mumps
- ☐ b. Herpes, meningitis, and hepatitis C
- ☐ c. Influenza, rubella, and tetanus
- ☐ d. Both a and c

Anatomy and Physiology

For Your Review
Read Chapter 4 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Body system: _____

Cell: _____

Circulatory system: _____

Digestive system: _____

Endocrine system: _____

Genitourinary system: _____

Integumentary system: _____

Musculoskeletal system: _____

Nervous system: _____

Organ: _____

Respiratory system: _____

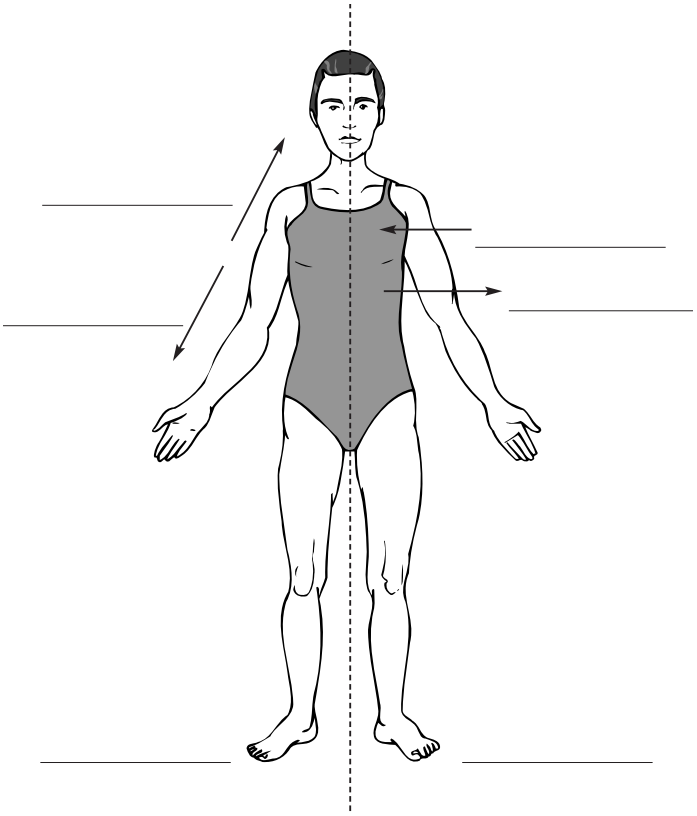
Tissue: _____

Vital organs: _____

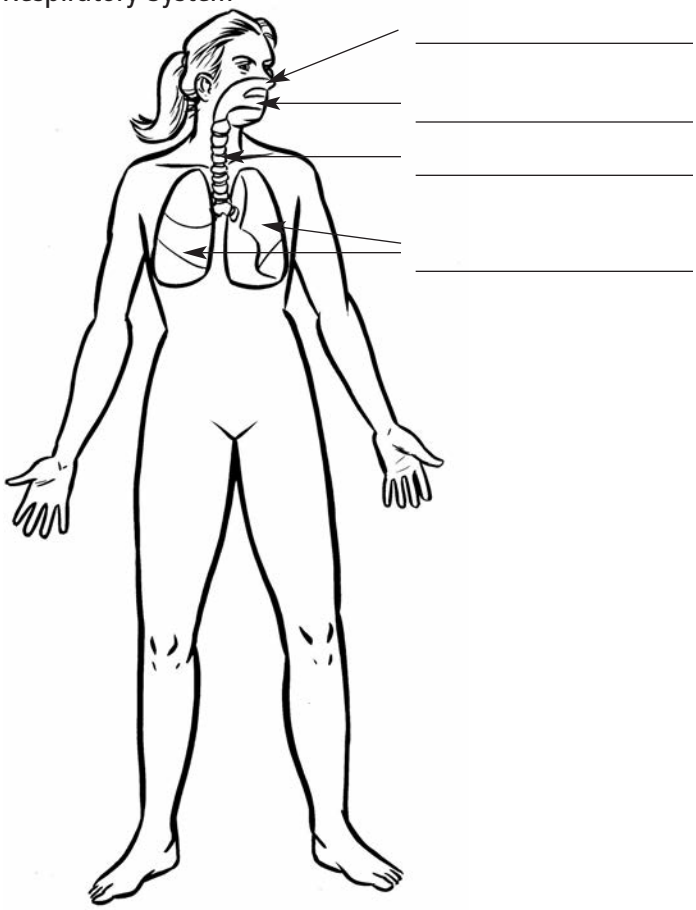
Fill in the Blanks

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

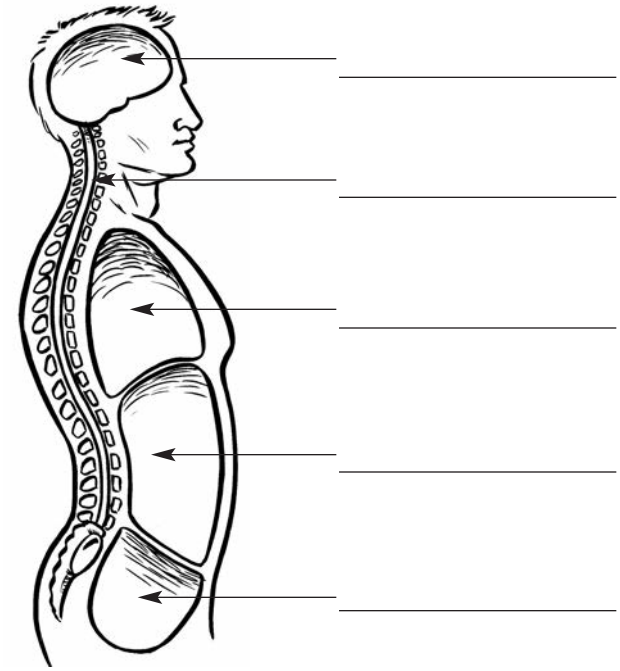
Directional Terms



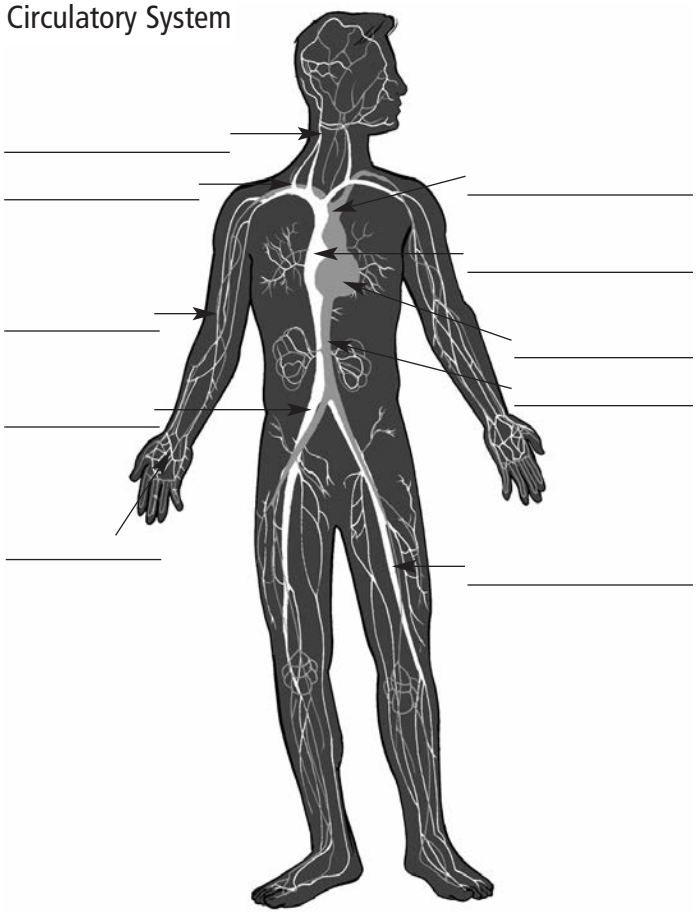
Respiratory System



Body Cavities



Circulatory System



2. "Anatomical position" is:

3. Complete the chart below:

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	
Endocrine		
	Uterus and genitalia	
	Kidneys and bladder	

4. Complete the chart below with the names of each body cavity and the major structures within each cavity.

Body Cavity	Major Structures in the Cavity
a.	
b.	
c.	
d.	
e.	

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
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:

   a. Elbow: _____

   b. 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

Scenario 2
You are called to a school where a teenaged boy is having a severe allergic reaction and has used his prescribed epinephrine auto-injector. He has a MedicAlert® medical identification product around his neck that indicates he has a severe allergy to peanuts. The person sitting beside him in the cafeteria was eating a granola bar.

1. Anaphylaxis is a reaction that can affect which of the following body systems?

☐ 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 of the skin may be the visual signs of anaphylaxis on the skin. What signs may be present that indicate an effect on the digestive system?

3. Epinephrine opens the airway and stimulates the heart to continue beating. Which two body systems does this indicate that epinephrine affects?

Test Your Knowledge

Circle the best answer to each of the following questions.

1. The epiglottis prevents liquids and solids from entering what?
   - a. The stomach
   - b. The lungs
   - c. The esophagus
   - d. The intestines

2. 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

3. The integumentary system has many functions. Its main function(s) is(are) to:
   - a. Prevent infection
   - b. Secrete hormones
   - c. Produce white blood cells
   - d. All of the above

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

5. 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

6. Which of the following is not in the pelvic cavity?
   - a. Rectum
   - b. Spleen
   - c. Bladder
   - d. Reproductive organs

7. Which of the following is one of the quadrants of the abdomen?
   - a. Dorsal quadrant
   - b. Superior quadrant
   - c. Upper midline quadrant
   - d. Right lower quadrant

Secondary Survey

For Your Review
Read Chapter 5 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Blood pressure (BP): _____

Brachial artery: _____

Carotid artery: _____

Glasgow Coma Scale (GCS): _____

Glucometry: _____

Golden Period: _____

Head-tilt/chin-lift: _____

Jaw thrust: _____

Level of consciousness (LOC): _____

Load-and-go emergency: _____

Mechanism of injury (MOI): _____

Primary survey: _____

Pulse oximetry:_____

Rapid body survey: _____

Respiratory rate: _____

Secondary survey: _____

Secondary transport decision: _____

Signs: _____

Symptoms: _____

Transport decision: _____

Vital signs: _____

_____

Do You Know…

1. What are the three parts of the secondary survey?

   i. _____

   ii. _____

   iii. _____

2. If you need to call for further help, what are the seven pieces of information you will need to tell the dispatcher?

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

   vi. _____

   vii. _____

3. If you are not transporting the patient yourself, you will need to obtain more advanced medical care in some cases. List five conditions in which you would do this.

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

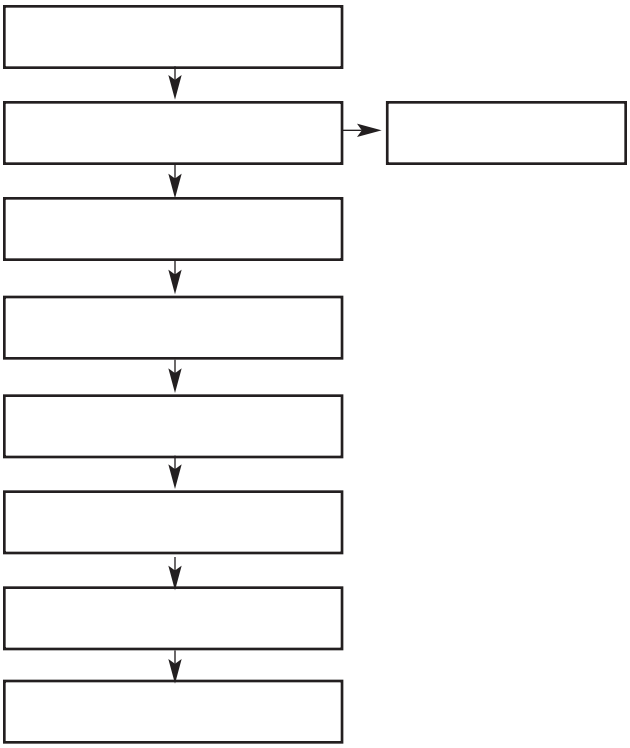
4. List the equipment you would ideally have to completely check vital signs.

   _____

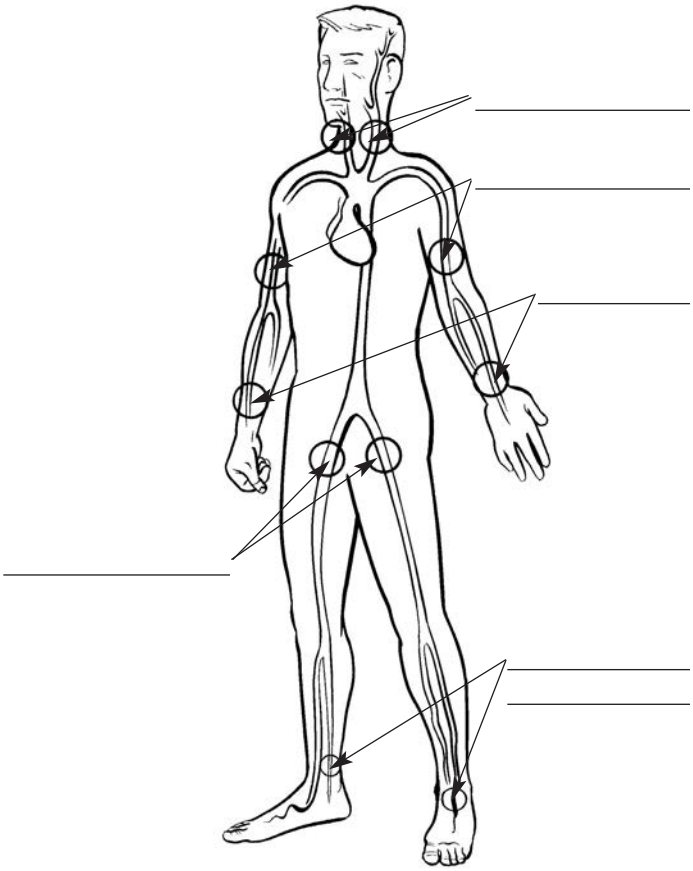
   _____

Fill in the Blanks

1. The Assessment Process
   Fill in the boxes to show the steps involved in assessment.



2. Label the pulse points in the diagram.



3. Commonly Used Assessment Mnemonics
Complete the words or phrases represented by each mnemonic.

ABC

A _____

B _____

C _____

SAMPLE

S _____

A _____

M _____

P _____

L _____

E _____

AVPU

A _____

V _____

P _____

U _____

OPQRST

O _____

P _____

Q _____

R _____

S _____

T _____

APGAR (See Chapter 20 on childbirth.)

A _____

P _____

G _____

A _____

R _____

Some other assessment mnemonics you may hear in the field are:

Why might a patient have an altered level of consciousness?
Alcohol
Epilepsy
Insulin (diabetic)
Overdose
Uremia

Trauma
Infection
Psychiatric/**P**oison
Stroke (cardiovascular)

When doing a secondary survey, remember to:
Inspect for CLAPS
Contusions
Lacerations
Abrasions
Punctures/**P**enetrations
Swelling/**S**ubcutaneous emphysema
and palpate for TICS
Tenderness
Instability
Crepitus
Swelling/**S**ubcutaneous emphysema
or DCAP and BLS
Deformities
Contusions
Abrasions
Punctures/**P**enetrations

Burns
Lacerations
Swelling

When doing a secondary survey, look for DOTS (signs of injury)
Deformities
Open wounds
Tenderness
Swelling

4. Vital Signs

Fill in the name of the vital sign that corresponds to the number or observation written here.

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

5. Assess Your Classmates

Fill in the names of your classmates. Then take the following vital signs and fill in your findings for each classmate.

Name	Respirations	Pulse	Skin Characteristics	Blood Pressure	Pupils

What Would *You* Do?
Read the following scenario and answer the questions below.

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

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

   i. _____

   ii. _____

   iii. _____

2. You check the child's vital signs and find the following. Put an 'X' next to the vital signs that are probably not normal for this child and a '✓' next to those that are probably normal.

Vital Sign	Normal vs. Not Normal
Level of consciousness: 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 questions should you ask her?

☐ a. The child's sleeping patterns, eating times, and vaccination records
☐ b. The child's allergies, current medications, and the last time the child ate or drank anything
☐ c. The child's age, address, and where she goes to school
☐ d. The child's medical conditions, activities before the emergency, and normal breathing rate

4. After completing your secondary survey, you perform another vital signs check and observe the following. Put an 'X' next to the vital signs that are probably not normal for this child and a '✓' next to those that are probably normal.

Vital Sign	Normal vs. Not Normal
Level of consciousness: 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
Circle the best answer to each of the following questions.

1. If you check capillary refill and the nail bed does not return to 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

2. Which of the following should you treat before performing a secondary survey?

☐ a. A fracture/sprain of the elbow
☐ b. An impaled object through the right hand
☐ c. Severe bleeding from the left leg
☐ d. None of these should be treated until after the secondary survey

3. When doing a head-to-toe survey of an unconscious patient, you should:

☐ a. Look for medical insurance and check to see if anyone knows what happened
☐ b. Inspect the arms first as this can give you a good indication of injuries to the torso
☐ c. Ask the patient to take a deep breath in and then exhale
☐ d. Inspect the patient using sight and touch

4. When surveying the scene, which of the following should you NOT need to ask yourself?

☐ a. Is the scene safe?
☐ b. Can bystanders help?
☐ c. What might have happened?
☐ d. Do I have all the right equipment?

5. When forming a general impression, which of the following do you NOT need to determine?

- ☐ a. If the patient is ill or injured
- ☐ b. The patient's gender and approximate age
- ☐ c. If the patient takes any medications
- ☐ d. The patient's chief complaint

6. Which of the following would indicate a need for more advanced care?

- ☐ 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
- ☐ 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

7. When assessing a child or baby, which of the following should you NOT do?

- ☐ a. Speak loudly and forcefully so she sees that you know what you are doing
- ☐ b. Use the child or baby's name and get down to her eye level
- ☐ c. Approach slowly and allow the child or baby time to get used to you
- ☐ d. Explain what you are doing and allow her to inspect equipment

8. What are the purposes of the primary and secondary surveys?

- ☐ a. Determine if the patient is in shock; identify if 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

Choking

For Your Review
Read Chapter 6 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Airway obstruction: _____

Finger sweep: _____

Do You Know…

1. What are the two types of airway obstruction?
   i. _____
   ii. _____

What Would *You* Do?
Read the following scenario and answer the questions below.

You are called to a restaurant where someone is choking. More advanced care is also on the way. You arrive to find out 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. Get her to lie on the ground and begin chest compressions
   - ☐ b. Stand behind the woman and begin abdominal thrusts
   - ☐ c. Do nothing until she stops making sounds
   - ☐ d. Stand behind the woman and alternate between five firm back blows and five chest thrusts
2. The woman goes unconscious. You protect her head and lower her 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 a pulse
   - ☐ c. Begin chest compressions
   - ☐ d. Do a finger sweep of the mouth
3. At one point, your ventilation goes in and you see the chest just begin to rise. You should:
   - ☐ a. Do 30 chest compressions
   - ☐ b. Give another ventilation
   - ☐ c. Roll her into the recovery position
   - ☐ d. Recheck her ABCs
4. If you find that the woman is not breathing, but she still has signs of circulation (including a pulse), you should give her one ventilation every three to five seconds. T or F

Test Your Knowledge
Circle the best answer to each of the following questions.

1. You are giving care for someone who is unconscious and choking. If your FIRST breath does not go in, you should:
   - ☐ a. Begin chest compressions
   - ☐ b. Attempt another ventilation, with slightly more force
   - ☐ c. Do a finger sweep of the mouth
   - ☐ d. Re-tilt the head and attempt another ventilation
2. When performing back blows and chest thrusts on a conscious choking baby, how should you position the baby?
   - ☐ a. On a flat surface such as a table
   - ☐ b. Turned on her side for easy access to the back and chest
   - ☐ c. Resting on your thigh with the head lower than the body
   - ☐ d. Upside down so gravity has the most effect

Respiratory Emergencies

For Your Review
Read Chapter 6 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Acute pulmonary edema: _____

Anaphylaxis: _____

Aspiration: _____

Asthma: _____

Breathing emergency: _____

Bronchitis: _____

Chronic obstructive pulmonary disease (COPD): _____

Cyanosis: _____

Emphysema: _____

Epinephrine: _____

Hyperventilation: _____

Metered-dose inhaler (MDI): _____

Pneumonia: _____

Pulmonary embolism: _____

Rescue breathing: _____

Respiratory arrest: _____

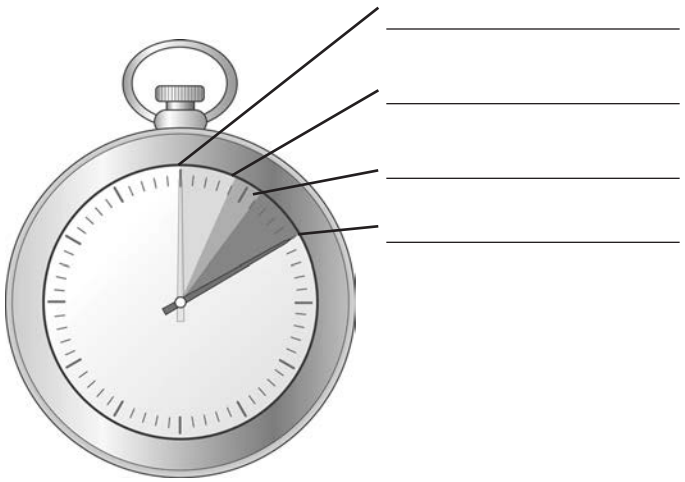
Do You Know…

1. What are the signs and symptoms of a breathing emergency?

2. When is it appropriate to stop rescue breathing?

Fill in the Blanks

1. Fill in the appropriate times below and indicate the significance of each time.



2. Respiratory Emergencies
   Fill in the type of emergency that corresponds to each description.

Type of Emergency	Description
	An obstruction in the airway
	A narrowing of the air passages
	A disease in which carbon dioxide/oxygen exchange is not effective
	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

Test Your Knowledge

Circle the best answer to each of the following questions.

1. A person with anaphylaxis may carry a(n):
   - ☐ a. Glucometer
   - ☐ b. Epinephrine auto-injector
   - ☐ c. Pulse oximeter
   - ☐ d. Metered-dose inhaler

2. General care for any breathing emergency can include:
   - ☐ a. Assisting the patient to take her prescribed medication; reassuring the patient
   - ☐ b. Performing rescue breathing; giving high-flow oxygen
   - ☐ c. Making the patient lie down; keeping the patient cool
   - ☐ d. Ensuring the area is well ventilated; performing abdominal thrusts

3. After finding no breathing or a pulse and giving two one-second ventilations, what is the next step?
   - ☐ a. Check for signs of circulation, including a pulse, for no more than 5 to 10 seconds
   - ☐ b. Check for level of consciousness
   - ☐ c. Continue rescue breathing
   - ☐ d. Begin 30 chest compressions

4. If an unconscious patient vomits while you are performing rescue breathing, 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

5. If a patient is wearing dentures and you need to perform rescue breaths, you should:

- ☐ a. Always remove them; they are a choking hazard
- ☐ 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; having them in 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 emergency

6. Breathing emergencies can be life-threatening because:

- ☐ a. The airway is always blocked, not allowing oxygen to get to the lungs
- ☐ b. The process of oxygen getting into the lungs, exchanged into the blood, and getting to the body cells is disrupted
- ☐ c. The lungs are no longer working
- ☐ d. There are no treatments for breathing emergencies

Airway and Ventilation

For Your Review
Read Chapter 7 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Bag-valve-mask (BVM) resuscitator: _____

Flowmeter: _____

Hypoxia: _____

Nasal cannula: _____

Nasopharyngeal airway (NPA): _____

Non-rebreather mask: _____

Oropharyngeal airway (OPA): _____

Oxygen cylinder: _____

Oxygen delivery device: _____

Pressure regulator: _____

Resuscitation mask: _____

Suctioning: _____

Ventilation: _____

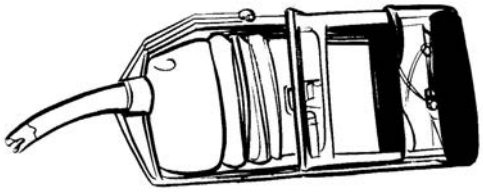
Ventilation devices: _____

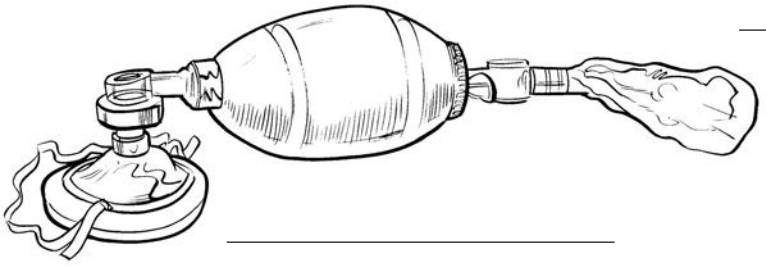
Do You Know…

1. What safety precautions should be followed when administering oxygen?

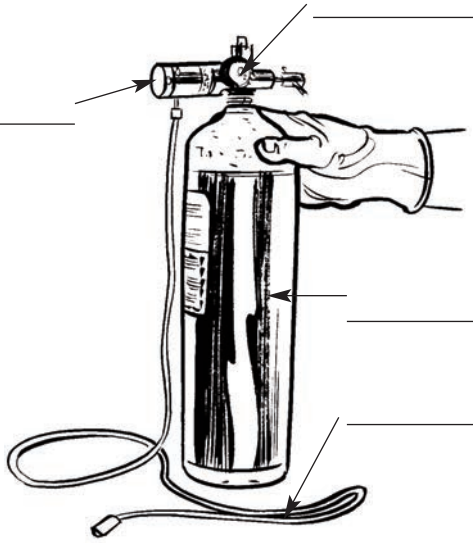
Fill in the Blanks

1. Identify the appropriate equipment by filling in the blanks.





2. Identify the parts of an oxygen tank by filling in the blanks.



What Would *You* Do?

Read the following scenario and answer the questions below.

You arrive at a scene to find a woman unconscious on the floor. She is not breathing but has a pulse. You have all your oxygen equipment with you.

1. After assessing the woman's level of consciousness, you determine that she has no response to pain and is deemed to be unresponsive. You can:
   - ☐ a. Insert an oropharyngeal airway
   - ☐ b. Start chest compressions
   - ☐ c. Take a blood pressure
   - ☐ d. Put a non-rebreather mask on the woman

2. Which of the following devices would you use in conjunction with oxygen to deliver the highest concentration of oxygen to the woman?
   - ☐ a. Non-rebreather mask
   - ☐ b. Bag-valve-mask
   - ☐ c. Resuscitation mask
   - ☐ d. Nasal cannula

3. What flow of oxygen should be used in conjunction with ventilations?
   - ☐ a. 1–4 lpm
   - ☐ b. 4–10 lpm
   - ☐ c. 10+ lpm
   - ☐ d. More than 25 lpm

4. What concentration of oxygen should this woman receive with the device and flow rate chosen?
   - ☐ a. 16–20%
   - ☐ b. 24–36%
   - ☐ c. 35–55%
   - ☐ d. 90+%

5. How often should you give a ventilation?
   - ☐ a. Every second
   - ☐ b. Every 3–5 seconds
   - ☐ c. Every 5–6 seconds
   - ☐ d. Every 10 seconds

Test Your Knowledge

Circle the best answer to each of the following questions.

1. To select the appropriate oropharyngeal airway, you should:
   - ☐ a. Size it from the patient's earlobe to the corner of the mouth
   - ☐ b. Size it from the patient's earlobe to the point of the chin
   - ☐ c. Size it from the tip of the patient's nose to the front teeth
   - ☐ d. Select the one designated for a patient of that age

2. In which of the following cases would you need to assist a patient to breathe?
   - ☐ a. If the patient is coughing and wheezing
   - ☐ b. If the patient is breathing more than 30 times per minute
   - ☐ c. If the patient is breathing less than 10 times per minute
   - ☐ d. Both b and c

3. Immediately after you have completed suctioning using a mechanical suctioning device, you should:
   - ☐ a. Keep the patient in the recovery position
   - ☐ b. Begin chest compressions
   - ☐ c. Administer supplemental oxygen
   - ☐ d. Reassess ABCs

4. When using a resuscitation mask, the best way to keep the airway open is to:
   - ☐ a. Tilt the patient's head back
   - ☐ b. Lift the jaw upward
   - ☐ c. Keep the patient's mouth open
   - ☐ d. All of the above

5. Which of the following devices are effective ONLY when used on someone who is breathing?
   - ☐ a. Oropharyngeal airway; bag-valve-mask resuscitator; non-rebreather mask
   - ☐ b. Resuscitation mask; nasal cannula
   - ☐ c. Non-rebreather mask; nasal cannula
   - ☐ d. None of the above should be used on someone who is breathing

6. Which of the following will cause a risk of explosion if put on the oxygen pressure regulator?
   - ☐ a. Carbon dioxide
   - ☐ b. Petroleum products
   - ☐ c. Water
   - ☐ d. Nitrogen

7. If someone has a stoma:

- ☐ a. Cover the stoma and ventilate into the mouth
- ☐ b. Attach oxygen tubing directly to the stoma
- ☐ c. Ventilate into the stoma as if it were the patient's mouth
- ☐ d. Place the oropharyngeal airway or nasopharyngeal airway into the stoma

8. Using a resuscitation mask when giving rescue breaths:

- ☐ a. Reduces the risk of disease transmission between the rescuer and the patient
- ☐ b. Prevents airway obstruction from occurring
- ☐ c. Reduces the volume of air required to inflate the lungs
- ☐ d. None of the above

9. When should the gasket ('O-ring') be placed on the oxygen cylinder?

- ☐ a. After the delivery device has been put on the patient
- ☐ b. After the regulator is secured to the oxygen cylinder
- ☐ c. After you have listened for any leaks
- ☐ d. After you have opened the oxygen cylinder for one second

10. When manually clearing vomitus from a patient's mouth, you should:

- ☐ a. Lift the patient into a sitting position and let the mouth drain
- ☐ b. Roll the patient to one side and sweep out the mouth
- ☐ c. Do a jaw thrust and sweep the vomitus out
- ☐ d. Do nothing; it is important not to stop ventilations

Circulatory Emergencies

For Your Review
Read Chapter 8 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Angina: _____

Cardiovascular disease: _____

Cholesterol: _____

Circulatory emergencies: _____

Congestive heart failure: _____

Coronary arteries: _____

Dysrhythmia: _____

Heart: _____

Heart attack: _____

Nitroglycerin: _____

Risk factors: _____

Stroke: _____

Transient ischemic attack (TIA): _____

Do You Know…

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

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

   vi. _____

2. What three tests can you perform to assess someone with a suspected stroke?

   i. _____

   ii. _____

   iii. _____

3. Heart attack is to angina as stroke is to _____.

4. List six factors that increase the risk of cardiovascular disease.

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

   vi. _____

What Would *You* Do?

Read the following scenario and answer the questions below.

You are called to a scene with a man having chest pain 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. Upon interviewing him, you find out that this has happened to him in the past, and his physician has prescribed him "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. List three pieces of information you must determine before suggesting he take his nitroglycerin.

   i. _____

   ii. _____

   iii. _____

2. The first dose of nitroglycerin does not relieve the signs and symptoms. You have already obtained more advanced medical care. What is the next step you should take?
   a. Have him take another dose of nitroglycerin right away.
   b. Have him chew some ASA after determining he does not have asthma and has no recent significant bleeding.
   c. Have him chew some acetaminophen after ensuring he does not have asthma, and has no recent significant bleeding.
   d. Give chest compressions to assist the blood in circulating through the body.

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

   i. _____

   ii. _____

   iii. _____

4. If this is a heart attack, why is it important that advanced medical care be obtained quickly?

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Cardiovascular disease is one of the leading causes of death in adults in Canada. T or F

2. Some people do not recognize they are having a heart attack because:

- ☐ a. They may have "soft signs" or no pain at all
- ☐ b. The signs and symptoms present the same as having heat exhaustion
- ☐ c. The signs and symptoms of a heart attack go away in less than five minutes
- ☐ d. No one really knows what the signs and symptoms of heart attacks are

3. You suspect an older gentleman has had a stroke. He is unconscious but breathing. You should position him:

- ☐ a. On his back
- ☐ b. On his side
- ☐ c. On his front
- ☐ d. In a semi-sitting position

4. High blood pressure can be controlled by:

- ☐ a. Taking prescribed medication
- ☐ b. Getting regular exercise and eating a healthy diet
- ☐ c. Keeping stress levels down
- ☐ d. All of the above

Cardiopulmonary Resuscitation

For Your Review
Read Chapter 8 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Asystole: _____

Automated external defibrillator (AED): _____

Cardiac arrest: _____

Cardiopulmonary resuscitation (CPR): _____

Ventricular fibrillation: _____

Ventricular tachycardia: _____

Do You Know…

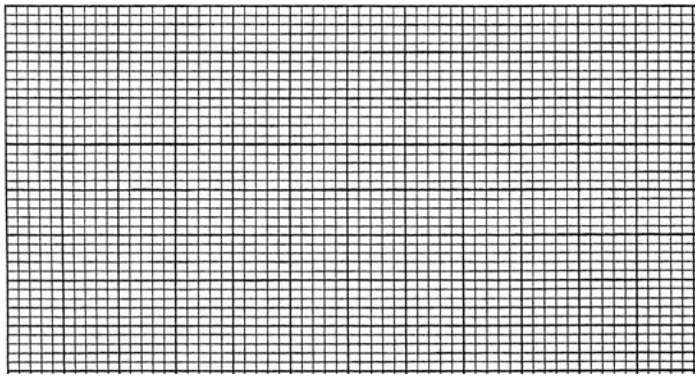
1. When is it appropriate to stop CPR?

Fill in the Blanks

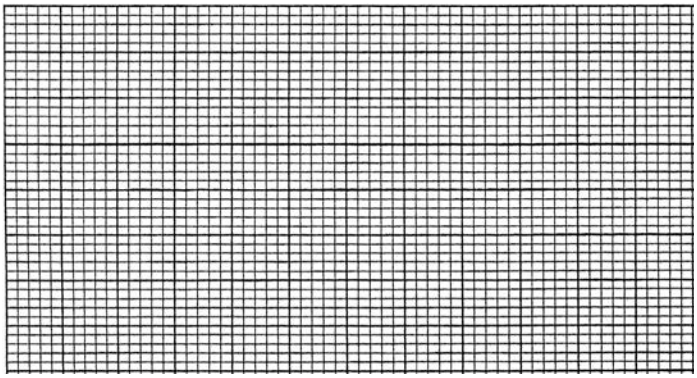
1. Fill in all the missing elements in the chart below.

CPR Chart			
	Adult	**Child**	**Baby**
Hand Position:	Two hands on middle of chest	One or two hands on middle of chest	
Compress:			$\frac{1}{3}$ to $\frac{1}{2}$ of chest depth
Breathe:			
Cycle:	30 compressions	30 compressions	30 compressions
Compression Rate:	At least 100 per minute	At least 100 per minute	At least 100 per minute

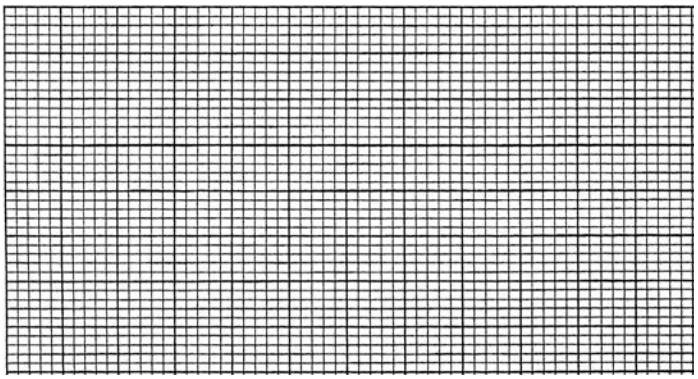
2. Heart Rhythms
Draw or describe the various heart rhythms onto the heart monitor paper as follows:



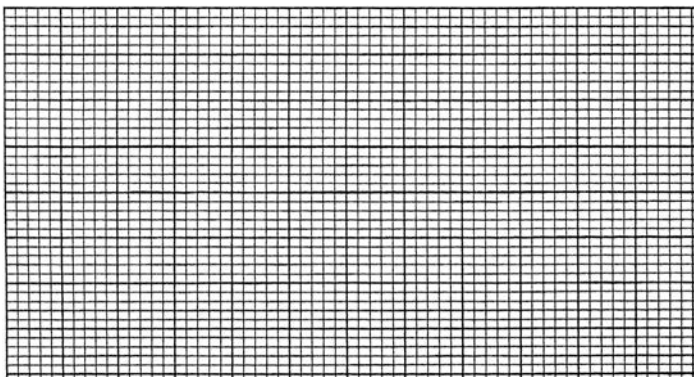
Normal sinus rhythm



Ventricular tachycardia



Ventricular fibrillation



Asystole

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
You are sent to a house after a frantic mother has called to say her baby isn't breathing. The mother was giving the baby a bath, and she left the baby for just a few moments to get a dry towel from the closet down the hall. When she got back, the baby's face was in the water and the baby wasn't moving. The mother pulled the baby out of the water, and she has just passed the baby to you, telling you to "do something."

1. After checking for breathing and a pulse and not finding either, you should:
- ☐ a. Check for a pulse
- ☐ b. Begin chest compressions
- ☐ c. Give two ventilations
- ☐ d. Pick the baby up and begin back blows and chest thrusts

2. Where will you check the baby's pulse?
- ☐ a. At the radial artery in the wrist
- ☐ b. At the brachial artery in the arm
- ☐ c. At the carotid artery in the neck
- ☐ d. In the femoral artery at the groin

3. You begin CPR. What ratio of compressions to ventilations would you do?
- ☐ a. 5:1
- ☐ b. 15:2
- ☐ c. 30:1
- ☐ d. 30:2

4. Your partner has calmed the mother and has come to help you with CPR until you can obtain more advanced medical care. One of you resumes compressions while the other does ventilations. What ratio of compressions to ventilations would you do?
- ☐ a. 5:1
- ☐ b. 15:2
- ☐ c. 30:1
- ☐ d. 30:2

5. How does the hand position of the person doing compressions change when doing two-rescuer CPR?

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 and lying on his chest. 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. Before using 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 down 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

Circle the best answer to each of the following questions.

1. Children's and babies' hearts usually stop because:
   - ☐ a. Their heart is not fully developed yet
   - ☐ b. There are a large number of diseases that often affect their heart
   - ☐ c. Their brain is not yet fully programmed to regulate the heart's electrical system
   - ☐ d. Their breathing stops
2. During two-rescuer 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
3. The purpose of CPR is to:
   - ☐ a. Restart the heart in someone in cardiac arrest
   - ☐ b. Keep oxygenated blood circulating to the vital organs of the body
   - ☐ c. Prevent clinical death from occurring
   - ☐ d. None of the above
4. An AED will shock a heart that is in asystole. T or F
5. Which of the following are major factors in determining the success of defibrillation?
   - ☐ a. Type of defibrillator
   - ☐ b. Time between start of dysrhythmia and defibrillation
   - ☐ c. The patient's age
   - ☐ d. The number of shocks that can be given in five minutes
6. An older adult is found unconscious outside in a cold snowbank. When checking for circulation, you should:
   - ☐ a. Check the pulse for no more than 10 seconds
   - ☐ b. Warm the patient up before checking for a pulse
   - ☐ c. Skip the pulse check and go directly to compressions
   - ☐ d. Check the pulse for up to 45 seconds
7. The primary signs of cardiac arrest are:
   - ☐ a. Unconsciousness and absence of blood pressure
   - ☐ b. No breathing and pulse present
   - ☐ c. Unconsciousness, no breathing, and no pulse
   - ☐ d. Blue around the lips, cool skin, and frothing at the mouth

Bleeding, Shock, and Soft Tissue Injuries

For Your Review
Read Chapters 9, 10, and 12 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Arteries: _____

Bandage: _____

Blast injury: _____

Blood volume: _____

Burn: _____

Capillaries: _____

Closed wound: _____

Clotting: _____

Critical burn: _____

Crush injury: _____

Direct pressure: _____

Dressing: _____

External bleeding: _____

Full-thickness burn: _____

Hemorrhage: _____

Internal bleeding: _____

Open wound: _____

Partial-thickness burn: _____

Pressure bandage: _____

Shock: _____

Soft tissues: _____

Superficial burn: _____

Tourniquet: _____

Veins: _____

Wound: _____

Do You Know…

1. List the components of blood.
   - i. _____
   - ii. _____
   - iii. _____
   - iv. _____
2. List the three major functions of blood.
   - i. _____
   - ii. _____
   - iii. _____
3. List the signs and symptoms of severe internal bleeding.

4. List five things you can do to care for shock.
   - i. _____
   - ii. _____
   - iii. _____
   - iv. _____
   - v. _____

5. Matching

   Draw a line to match each type of shock, on the left, with its cause, on the right.

TYPE	CAUSE
Neurogenic	Failure of the heart to effectively pump blood to all parts of the body
Psychogenic	Severe lack of blood and fluid in the body
Septic	Factors such as emotional stress cause blood to pool in the body in areas away from the brain because of vessels dilating
Anaphylactic	Poisoning caused by severe infections that cause blood vessels to dilate
Cardiogenic	Life-threatening allergic reaction to a substance
Hypovolemic	Failure of the lungs to transfer sufficient oxygen into the bloodstream
Respiratory	Failure of the nervous system to control the size of blood vessels, causing them to dilate

6. List at least six signs and symptoms of shock. Underline the two that are the best early indicators of shock.

7. Using the diagram below, draw what you would do to care for this patient. To the side of the diagram, describe any other care you would give that cannot be drawn on the diagram.

8. What are the four main types of open wounds?

   i. _____

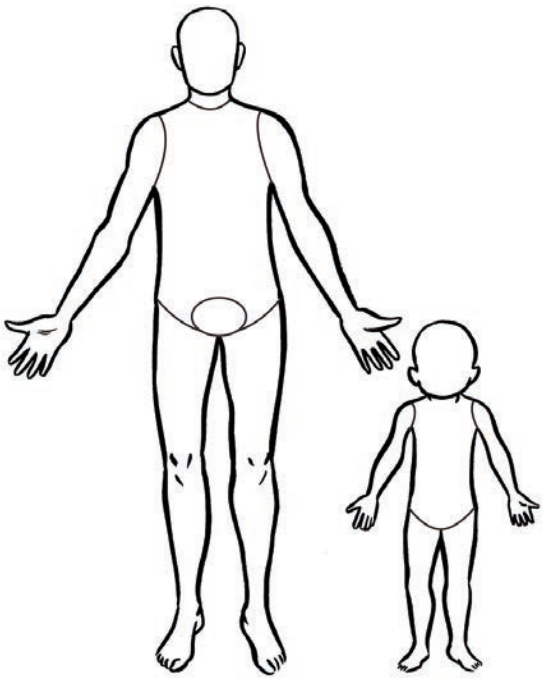
   ii. _____

   iii. _____

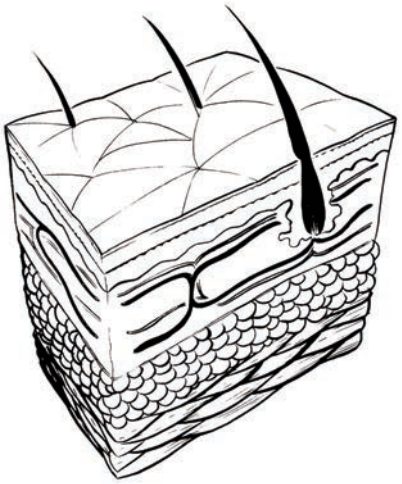
   iv. _____

Fill in the Blanks

1. Estimating the Extent of Burns
   On the diagrams below, write the percentages that correspond to the various body areas, to represent the percentage of body surface burned.



2. Thicknesses of Burns
   Using the diagram below, list the two layers of skin. Next, indicate which layers are affected by each of the three thicknesses of burns by drawing an arrow through the correct layers.



What Would *You* Do?

Read the following scenarios and answer the questions below.

Scenario 1

You respond to a call to an open field near a country home, where a man was making a fire to rid his garage of old papers, wood from his latest home improvement project, and some old wooden furniture. He threw some debris in the fire, and, shortly after, there was an explosion. An aerosol can must have gotten mixed in with the material he was burning. He was hit by flying debris and thrown, landing forcefully. As you approach, you notice he is lying on his back, looking anxious and in pain, with a large wound in his left leg, which seems to be bleeding uncontrollably. Your partner takes spinal precautions.

1. Before applying direct pressure to the wound, you should:

- ☐ a. Ensure you have gloves on
- ☐ b. Check his vital signs
- ☐ c. Ask SAMPLE questions
- ☐ d. Conduct a secondary survey

2. While you are conducting a secondary survey, you notice the man is getting drowsy and is complaining of thirst and nausea. You expose his abdomen and notice it is bruised and swollen. This would indicate:

- ☐ a. He has been doing a lot of sit-ups lately
- ☐ b. He has eaten something recently that has made him sick
- ☐ c. He is bleeding internally
- ☐ d. He was burned by the fire

3. What other care would you give for this man?

Scenario 2

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

1. You take a set of vital signs and find his pulse to be 130, weak, and rapid, and he has a blood pressure of 86/58. This most likely indicates:

- ☐ a. He may be losing blood internally, and his heart is compensating for this by beating faster
- ☐ b. He has a severe infection that is affecting his cardiovascular system
- ☐ c. He is mad at the driver for hitting him, and his stress level is high
- ☐ d. Nothing is wrong, as these vital signs are normal for a male teenager

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

3. When you take the next set of vital signs, his pulse is 150, weak, and rapid, his breathing is ineffective and at a rate of 30 times per minute, and his blood pressure is 74/42. When you assess his level of consciousness, he does not respond to your voice. What is the next step to take?

- ☐ a. Shake him to wake him up
- ☐ b. Increase the flow of oxygen
- ☐ c. Apply a painful stimulus and look for a response
- ☐ d. Take note of this and move on to checking his pupils

4. The teenager begins to gasp for air and then stops breathing. You reassess his ABCs and find he is in cardiac arrest. What is your next step?

- ☐ a. Take his blood pressure
- ☐ b. Recheck his vital signs
- ☐ c. Suction the airway and then increase oxygen flow
- ☐ d. Begin CPR/AED

Scenario 3

You are called to the warehouse at your workplace, where one of your co-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, conscious and in severe pain.

1. After ensuring you have the appropriate personal protective equipment on, what should your next step be?

- ☐ a. Perform a secondary survey and look for any other injuries
- ☐ b. Pack the area where the hand was with dressings
- ☐ c. Take a set of vital signs
- ☐ d. Get the hand out of the baler

2. Which of the following conditions will the patient likely develop shortly?

- ☐ a. Shock
- ☐ b. Hemothorax
- ☐ c. Angina
- ☐ d. Infection

3. What four things should you do to the amputated hand to increase the chances of successful re-attachment?

   i. _____

   ii. _____

   iii. _____

   iv. _____

Scenario 4

An older female 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 water lands on the woman, scalding her.

1. You note that she has partial-thickness burns covering her face and left arm. She has superficial burns to her right arm. Estimate the percentage of her body that has been burned.

- ☐ a. 9%
- ☐ b. 18%
- ☐ c. 27%
- ☐ d. 36%

2. How will you care for these burns?

- ☐ a. Get her to lie in a tub of ice water
- ☐ b. Put cold cloths over the entire burned area
- ☐ c. Put ice on the areas that are the most severely burned
- ☐ d. Cool the burns immediately to prevent further burning and decrease pain

3. This is considered to be a critical burn, and you should obtain more advanced medical care. T or F

4. 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. Nothing
- ☐ d. More cool cloths

Test Your Knowledge

Circle the best answer to each of the following questions.

1. A sign of severe external bleeding 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

2. Which is NOT involved in the care for severe internal bleeding?

- ☐ a. Obtain more advanced medical care
- ☐ b. Administer supplemental oxygen
- ☐ c. Give the patient sips of water
- ☐ d. Treat the patient for shock

3. What are the three types of vessels that carry blood?

- ☐ a. Arteries, capillaries, and veins
- ☐ b. Arteries, alveoli, and veins
- ☐ c. Atria, capillaries, and ventricles
- ☐ d. Arteries, bronchioles, and veins

4. If a patient has severe blood loss, the blood pressure should:

- ☐ a. Go up
- ☐ b. Drop
- ☐ c. Remain normal
- ☐ d. Demonstrate an increasing gap between the systolic and the diastolic pressure

5. If blood is uncontrollably spurting from a wound, which of the following personal protection items should you wear?

- ☐ a. Gloves
- ☐ b. Gown
- ☐ c. Protective eyewear and mask
- ☐ d. All of the above

6. If a patient is severely bleeding internally from a fall, which of the following personal protection items should you wear?

- ☐ a. Gloves
- ☐ b. Gown
- ☐ c. Protective eyewear and mask
- ☐ d. All of the above

7. If direct pressure and pressure bandages do not stop the bleeding, which of the following can be used as a last resort, by trained personnel only?

- ☐ a. Arterial clamping
- ☐ b. Tourniquet
- ☐ c. Elastic bandaging
- ☐ d. Hyperbaric recompression

8. Shock is life-threatening because:
- [ ] a. The blood becomes poisonous
- [ ] b. The vital organs are not getting adequate oxgen-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

9. 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

10. 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 in 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

11. In cases of serious illness or injury, shock is usually the final stage before death. T or F

12. Someone in shock should be positioned:
- [ ] a. On her back with the head elevated
- [ ] b. Flat on her back
- [ ] c. Sitting in a chair
- [ ] d. On a long backboard

13. Which of the following is NOT included in the general care for shock?
- [ ] a. Administer oxygen
- [ ] b. Maintain normal body temperature
- [ ] c. Give assisted ventilations
- [ ] d. Provide rest and reassurance

14. You have to identify the specific nature of the illness or injury before you can provide care for shock. T or F

15. If an injury causes severe blood loss, this will in turn cause:
- [ ] a. The blood pressure to increase
- [ ] b. The skin to become red and warm
- [ ] c. The heart rate to drop
- [ ] d. The blood volume to drop

16. Do not wait for shock to develop before providing care. T or F

17. Why is it important to help someone with shock to rest comfortably?
- [ ] a. It may minimize pain
- [ ] b. It reduces the workload on the heart
- [ ] c. It allows the blood vessels to constrict
- [ ] d. Both a and b

18. Which of the following is NOT a step in caring for an abrasion?
- [ ] a. Place a sterile dressing over the wound
- [ ] b. Apply ice to the wound
- [ ] c. Cleanse the wound with soap and water
- [ ] d. Rinse the wound under running water

19. What is the purpose of a bandage?
- [ ] a. It prevents air from reaching the wound and keeps dressings in place
- [ ] b. It provides a sterile covering for the wound
- [ ] c. It applies pressure to control bleeding and supports injured body parts
- [ ] d. It allows the wound to breathe and prevents infection

20. 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

21. 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

22. If you bandage a forearm, you should leave the fingers of the hand exposed. T or F

23. A woman has dropped a chemical powder on her foot, causing a chemical burn. You should 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

24. You should obtain more advanced medical care in which of the following situations:
- ☐ 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

25. A myocardial contusion is:
- ☐ a. A bruise to the heart
- ☐ b. Any bruise located in the torso area
- ☐ c. Any soft tissue injury to the heart
- ☐ d. A rupture of any of the major vessels supplying blood to the heart

26. The area around a recent wound is now red and swollen. The area feels warm to the touch. This may indicate:
- ☐ a. A quick healing process
- ☐ b. Severe internal bleeding
- ☐ c. An infection
- ☐ d. A superficial burn

27. Which is NOT one of the mechanisms of injury from a blast?
- ☐ a. Shrapnel thrown by the blast
- ☐ b. Poisoning due to fumes released by the blast
- ☐ c. Trauma due to being thrown by the blast
- ☐ d. Injury due to the pressure wave or heat of the blast

Musculoskeletal Injuries

For Your Review
Read Chapter 13 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Bone: _____

Dislocation: _____

Distal circulation: _____

Extremities: _____

Fracture: _____

Immobilize: _____

Joint: _____

Ligament: _____

Muscle: _____

Osteoporosis: _____

Skeletal muscles: _____

Splint: _____

Sprain: _____

Strain: _____

Tendon: _____

Traction: _____

Do You Know…

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 most musculoskeletal injuries.

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

3. List five common signs and symptoms indicating a serious musculoskeletal injury.

   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. _____

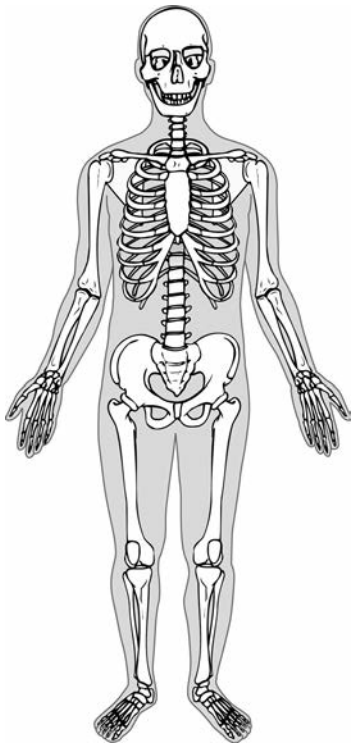
   ii. _____

   iii. _____

   iv. _____

Fill in the Blanks

1. The Skeleton
   On the diagram below, indicate the location of the following structures: femur, pelvis, humerus, clavicle, skull, patella, sternum, ulna.



2. This patient has a broken lower leg. Draw or describe what you would do to treat this patient.

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
You are called to a sports field where a rugby player has just been hit in the legs front on. 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. Apply a traction splint
- ☐ b. Secure the injured leg to the uninjured leg
- ☐ c. Leave the injury as is until the patient must be moved or transported
- ☐ d. All of the above

3. List four ways you could check distal circulation and sensation.

   i. _____

   ii. _____

   iii. _____

   iv. _____

Scenario 2
You arrive at the scene where a 13-year-old boy 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 boy 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
Circle the best answer to each of the following questions.

1. 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

2. When should you care for musculoskeletal injuries?
- ☐ a. During the primary survey
- ☐ b. When you find them during your secondary survey
- ☐ c. After the secondary survey
- ☐ d. As soon as the patient identifies them as her main complaint

3. 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

4. Which of the following is a basic principle of splinting?
- ☐ a. Splint the area or joints above and below the injury site
- ☐ b. Check circulation and sensation before and after splinting
- ☐ c. Splint only if you can do so without causing further injury
- ☐ d. All of the above

5. 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
- ☐ d. Avoid immobilizing the injury

6. A traction splint is appropriate for:

- [ ] a. A clavicle fracture
- [ ] b. A shoulder dislocation
- [ ] c. A femur fracture
- [ ] d. Any ankle injury

7. Before immobilizing any injury, you should always:

- [ ] a. Return the limb to the normal anatomical position
- [ ] b. Control any bleeding
- [ ] c. Push any exposed bones back under the skin
- [ ] d. Elevate the injury

8. Which of the following patterns is effective for applying pressure to a shoulder or knee?

- [ ] a. Triangular pattern
- [ ] b. Joint hook pattern
- [ ] c. Extremity relief pattern
- [ ] d. Figure-eight pattern

9. When using a rigid splint on a forearm, you should:

- [ ] a. Pad the splint to fit any deformities
- [ ] b. Secure the hand and fingers tightly to the splint
- [ ] c. Tie the splint directly over the injured site
- [ ] d. Ensure it extends from the shoulder to the tips of the fingers

Head and Spine Injuries

For Your Review
Read Chapter 14 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Cervical collar: _____

In-line stabilization: _____

Spinal column: _____

Spinal cord: _____

Vertebrae: _____

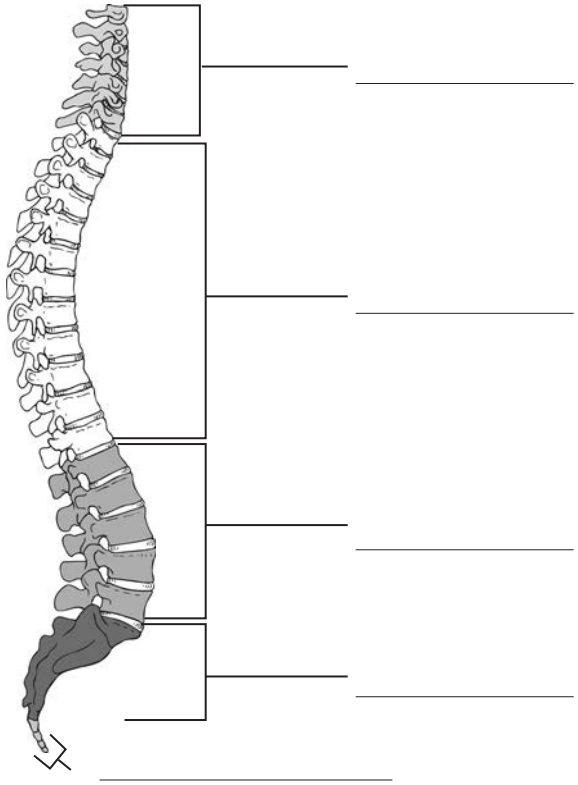
Do You Know...

1. Sequence of Events
   Number the following steps in the correct sequence for immobilizing someone on a long backboard. (Assume that the patient is lying on his back.)
   _____ Position the backboard behind the patient
   _____ Secure the thighs to the board
   _____ 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
   _____ Check the back for injury
   _____ 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 hips to the board

2. List eight signs and symptoms that indicate someone may have a head and/or spine injury.
   i. _____
   ii. _____
   iii. _____
   iv. _____
   v. _____
   vi. _____
   vii. _____
   viii. _____

Fill in the Blanks

1. The Spinal Regions
   Label the five spinal regions.



What Would *You* Do?

Read the following scenarios and answer the questions below.

Scenario 1

There is a bar fight in the middle of town. You and your partner arrive and are ushered in by law enforcement personnel. One man is sitting on a stool holding his hand, which is cut and bruised. He has minor cuts on his face and arms. The other man is sitting on a chair, holding his face. Your partner moves towards the man on the stool, and you walk towards the man on the chair. When you look at his face, you see blood coming from his mouth and nose. He also has a black eye. He is having difficulty talking to you as it seems his jaw is broken.

1. You should suspect a head and/or spine injury in this situation. T or F

2. What is a major concern when there is injury to the mouth or jaw?

3. The man has lost two teeth. To control bleeding coming from the gums, you should:
   - ☐ a. Have him place a cloth over his mouth
   - ☐ b. Have him lean forward and open his mouth
   - ☐ c. Give him a rolled piece of gauze to put in the space where the teeth were
   - ☐ d. Put the teeth back in the sockets

4. If you find the teeth, you should:
   - ☐ a. Have the man put them in his pocket
   - ☐ b. Put them in a container of milk and keep them with the man
   - ☐ c. Discard them
   - ☐ d. Put them in a container of alcohol

Scenario 2

A roofer who was 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. He is conscious. When the tool box came down, a nail fell and is now impaled in the roofer's eye. You also see some small cuts on his face, and there is fluid coming from his ears. His work crew are coming down off the roof to see what is happening.

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. You have applied manual in-line stabilization and are waiting to obtain more advanced care. The man vomits. What do you do?
   - ☐ a. Immediately turn the man's head to one side to drain the vomitus
   - ☐ b. Open the man's mouth using a jaw thrust and sweep out the vomitus
   - ☐ c. Ask one of the crew members to help you log-roll the man to the side and have the crew member roll the upper body while you maintain in-line stabilization
   - ☐ d. Ask one of the crew members to help you log-roll the man to the side and have the crew member roll the lower body while you roll the upper body

3. Why is a closed head injury a life-threatening problem?

4. How would you care for the eye with the impaled nail?

Test Your Knowledge

Circle the best answer to each of the following questions.

1. In which of the following cases should you NOT move the head of someone with a spinal injury?
   - a. If there is severe angulation to one side
   - b. If there is resistance when moving the head
   - c. If the patient complains of pain when moving the head
   - d. All of the above

2. If someone is bleeding from the scalp and there is a depression in the skull, how would you control the bleeding?
   - a. Apply pressure to the carotid artery
   - b. Apply pressure on the area around the wound
   - c. Apply direct pressure on the wound
   - d. Do not apply any pressure near the wound

3. Which of the following situations involving a nosebleed would indicate obtaining more advanced medical care?
   - a. It is caused by high blood pressure
   - b. It is the fourth nosebleed in a one-year period
   - c. It is caused by low blood pressure
   - d. It is the first nosebleed the patient has ever had

4. A patient is wearing a hockey helmet with a full face mask. In which of the following cases would you remove the helmet?
   - a. Always remove the helmet right away
   - b. The helmet is putting pressure on the back of the head and is causing a headache
   - c. The helmet interferes with rescue breathing or stabilizing the head in line with the body
   - d. Never remove the helmet

5. In which of the following cases would you suspect a head and/or spine injury?
   - a. A conscious woman involved in a motor vehicle collision was not wearing a seat belt
   - b. An unconscious teenager has been pulled out of the water after diving off a cliff near the side of a lake
   - c. A miner's hard hat was cracked after a piece of debris fell on the hat
   - d. All of the above

6. A soccer player sustains a possible concussion while out on the field. She says she feels okay now. It is the final game of the championships, and she is the star player. She should:
   - a. Not return to the game
   - b. Go on the field but try not to exert herself too much
   - c. Go back to the game
   - d. Switch positions with the goalie so she won't have to run as much

7. A change in which of the following vital signs may indicate a head injury?
   - a. Pupils and level of consciousness
   - b. Pulse and blood pressure
   - c. Breathing rate
   - d. All of the above

8. Eye injuries are usually life-threatening emergencies. T or F

9. If a neck injury is bleeding severely, you should:
   - a. Apply pressure to the carotid artery
   - b. Apply a pressure bandage, being careful not to constrict the carotid arteries
   - c. Tape a bulky dressing over the wound
   - d. Have the patient lie on his side with the injured side up

Chest, Abdominal, and Pelvic Injuries

For Your Review
Read Chapter 15 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Abdominal aortic aneurysm: _____

Flail chest: _____

Hemothorax: _____

Occlusive dressing: _____

Pneumothorax: _____

Sternum: _____

Sucking chest wound: _____

Tension pneumothorax: _____

Do You Know…

1. Signs and Symptoms
   Circle the signs and symptoms most often associated with chest injuries, underline those most often associated with abdominal and/or pelvic injuries, and put a square around those associated with all three.

Nausea and vomiting	Pale skin
Thirst	Coughing up blood
Weakness	Obvious deformity
Difficulty breathing (dyspnea)	Protruding organs
Tenderness in the abdomen	Pain at the injury site
Flushed skin	that increases with
Bluish skin	deep breathing or
Bruising	movement

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
You arrive at the scene where a hunter has mistakenly been shot in the chest. He is lying on his back, and there is blood coming through his jacket. He is gasping for air. Upon getting closer, you hear a gurgling sound coming from his rib cage.

1. You suspect the bullet 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 cover the hole with your gloved hand until you are able to cover the wound with:
   - ☐ a. Sterile gauze
   - ☐ b. An adhesive bandage
   - ☐ c. An occlusive dressing
   - ☐ d. A triangular bandage

3. Using the covering you chose in the previous question, how would you bandage this injury and why?

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

Scenario 2

A teenaged boy has been stabbed in the abdomen. He is conscious, although barely, and is breathing without difficulty. 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 abdomen
- ☐ b. Administer oxygen
- ☐ c. Remove clothing from around the wound
- ☐ d. All of the above

2. When covering the wound, which of the following should you do?
- ☐ a. Apply direct pressure
- ☐ b. Moisten the dressings first
- ☐ c. Reinsert the organs into the abdominal cavity
- ☐ d. Place a layer of plastic wrap on the abdomen first

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

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Someone with a pelvic injury should be immobilized on a backboard. T or F

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. Bladder
- ☐ d. Liver

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

4. If you see the abdomen pulsating, you should:
- ☐ a. Count the number of pulses per minute
- ☐ b. Push on the four quadrants of the abdomen to determine the origin of the pulsating
- ☐ c. Treat for shock and internal bleeding
- ☐ d. Roll the patient into the recovery position

5. Hemothorax is caused by which of the following entering the pleural space?
- ☐ a. Digestive enzymes
- ☐ b. Blood
- ☐ c. Hematocrit
- ☐ d. Tissue

6. When treating someone with a closed abdominal injury, the patient's legs should be:
- ☐ a. Bent with knees pulled towards the chest
- ☐ b. Extended straight
- ☐ c. Raised approximately 15 cm (6 in.)
- ☐ d. Slightly bent with a blanket under the knees

7. To treat flail chest, you should:
- ☐ a. Apply bulky dressings to the flail segment
- ☐ b. Tightly bind the patient's arm to the chest
- ☐ c. Have the patient lie on her right side
- ☐ d. Bind the entire chest, ensuring you do not restrict breathing

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

Sudden Illnesses

For Your Review
Read Chapter 16 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Altitude sickness: _____

Appendicitis: _____

Blood glucose level: _____

Bowel obstruction: _____

Diabetic emergency: _____

Epilepsy: _____

Fainting: _____

Gastroenteritis: _____

Glucometer: _____

Hyperglycemia: _____

Hypoglycemia: _____

Insulin: _____

Kidney stones: _____

Peptic ulcer: _____

Peritonitis: _____

Seizure: _____

Status epilepticus: _____

Urinary tract infection: _____

Do You Know…

1. List six situations in which more advanced medical care should be obtained when dealing with a seizure.

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

   vi. _____

2. Find the Errors
   Read the following scenario and pick out three errors that this responder has made.

You are called to the scene of the recreation room at a seniors' residence, where an older woman sits slumped in her chair. The nurse tells you that the woman became dizzy and disoriented, and she's now unconscious. Her breathing and pulse are rapid. After questioning the staff, you find out that she is diabetic and on insulin. One of the nurses says that, when this happened in the past, she gave the woman a glass of juice. You obtain more advanced medical care. You decide not to use any oral glucose because the woman might be hyperglycemic and giving extra sugar might harm her. You conduct a primary survey and then cover her with a light blanket to keep her warm. Even though the woman is unconscious, you pour some water in her mouth as you're concerned she might be dehydrated. You then administer her insulin.

1. What three mistakes did this responder make?

   i. _____

   ii. _____

   iii. _____

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
A 22-year-old male who works in a bike shop falls to the floor one day and begins to shake uncontrollably. His arms and legs flail about for a short period of time, then he goes flaccid and is lying on the ground 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. Fainting

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

3. You do a primary survey and determine that his ABCs are all normal. You see no other visible injuries. He is drowsy and disoriented. What stage of the seizure is he in?
   - ☐ a. Clonic
   - ☐ b. Aura
   - ☐ c. Post-ictal
   - ☐ d. Tonic

4. While taking vital signs, you reach for his wrist to check his radial pulse and feel a bracelet. You see that it is a MedicAlert® medical identification product stating that he has epilepsy. None of his co-workers were aware of this as he is a new employee and kept to himself most of the time. Is there a need to obtain more advanced medical care at this point? Why or why not?

5. With this type of seizure, are there any circumstances in which you would need to obtain more advanced medical care? If so, what are they?

Scenario 2

On a hot summer day, at the senior men's soccer championship, the right wing player begins to feel ill. He asks to sit out for a few minutes to catch his breath, which seems more rapid than usual. He sits on the bench with his head in his hands to attempt to stop the dizziness.

1. When you arrive on the scene, his breathing is rapid. His skin is pale and moist. During the secondary survey, what questions should you ask him?

2. After he answers all your 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 figured it was enough to keep his blood sugar regulated, but he might have miscalculated the fact that he was playing a championship game and was exerting more energy than usual. 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

3. If the player does not improve in five minutes, you should:

- ☐ a. Give him more sugar
- ☐ b. Have him take more insulin
- ☐ c. Obtain more advanced medical care
- ☐ d. Suspect it is not a diabetic emergency

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Which of the following would indicate an abdominal problem is more than just a case of gastroenteritis?

- ☐ a. Diarrhea
- ☐ b. Abdominal cramps
- ☐ c. Headache
- ☐ d. Slow pain onset

2. Pain and discomfort from conditions such as kidney stones, peptic ulcers, and urinary tract infections most often need:

- ☐ a. Prescribed medication
- ☐ b. Rehydration
- ☐ c. Time to improve
- ☐ d. Surgery

3. It is important to diagnose the exact cause of a sudden illness before giving care. T or F

4. 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

5. Care for fainting should include:

- ☐ a. Waking the patient up by putting water on his face
- ☐ b. Loosening restrictive clothing
- ☐ c. Having the patient sit up in a chair
- ☐ d. Giving the patient warm fluids

6. It is harder to breathe at higher altitudes because:

- ☐ a. There is less oxygen
- ☐ b. Your body has to work harder
- ☐ c. Your lung capacity decreases
- ☐ d. The atmospheric pressure is lower

7. After a banquet, 20 people complain of abdominal cramps and nausea. This indicates the likely problem is:

- ☐ a. Gastroenteritis
- ☐ b. Internal bleeding
- ☐ c. Bowel obstruction
- ☐ d. Spider envenomation

Poisoning

For Your Review
Read Chapter 17 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Absorbed poison: _____

Depressants: _____

Designer drug: _____

Drug: _____

Hallucinogens: _____

Ingested poison: _____

Inhalants: _____

Inhaled poison: _____

Injected poison: _____

Medication: _____

Narcotics: _____

Overdose: _____

Poison: _____

Poison Control Centre: _____

Stimulants: _____

Substance abuse: _____

Substance misuse: _____

Do You Know…

1. Types of Poisons
   The following are possible sources of poison. Beside each, write the corresponding letter to indicate if it would cause poisoning by ingestion (A), inhalation (B), injection (C), or absorption (D).

Chlorine bleach	___	Ticks	___
Carbon monoxide	___	Powdered chemicals	___
Alcohol	___	Spiders	___
Chlorine gas	___	Poison ivy	___
Cocaine	___	Poison sumac	___
Snakes	___	Animal bites	___
Heroin	___		

2. List five ways to prevent unintentional poisoning.

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

What Would *You* Do?
Read the following scenario and answer the questions below.

Your neighbour's wife calls you because her husband is unconscious. She brings you into the house through the inside garage door. You open the door to the sound of the car running, the smell of fuel, and her husband lying on the ground unconscious with no apparent injuries.

1. Your first step is to:
   - ☐ a. Open the outside garage door and obtain more advanced medical care
   - ☐ b. Check his ABCs and begin appropriate treatment
   - ☐ c. Turn off the car
   - ☐ d. Tell the wife to try to wake him while you gather supplies

2. After the air has circulated and it is safe to approach him, you see a half-empty bottle of anti-freeze lying near him, and there is a bluish liquid seeping out of his mouth, as well as down the front of his shirt. You should:
   - ☐ a. Begin a primary survey
   - ☐ b. Give him something to make him vomit
   - ☐ c. Contact the local Poison Control Centre
   - ☐ d. Both a and c

3. You are unable to contact the Poison Control Centre. You should:
   - ☐ a. Begin care depending on what you find in the primary survey
   - ☐ b. Give him something to make him vomit
   - ☐ c. Dilute the poison with water
   - ☐ d. All of the above

Test Your Knowledge
Circle the best answer to each of the following questions.

1. Which of the following is NOT a question to ask regarding a suspected poisoning?
   - ☐ a. How much was taken?
   - ☐ b. Why was it taken?
   - ☐ c. When was it taken?
   - ☐ d. What type of poison was taken?

2. Which of the following should you call in a suspected poisoning?
   - ☐ a. Poison Control Centre
   - ☐ b. Nearest hospital emergency department
   - ☐ c. Law enforcement personnel
   - ☐ d. Local pharmacy

3. If someone who has had too much to drink becomes aggressive or threatening towards you, you should:
   - ☐ a. Ask anyone around to help you restrain her
   - ☐ b. Move away to a safe distance and wait
   - ☐ c. Ignore her and continue care
   - ☐ d. Try to get the bottle out of her hand to determine what she has been drinking

4. Which of the following would differentiate someone who is poisoned from someone experiencing another medical emergency?
   - ☐ a. Burns in and around the mouth
   - ☐ b. Nausea and vomiting
   - ☐ c. Seizures
   - ☐ d. Loss of consciousness

5. It is important to know exactly what substance the person ingested before providing care. T or F

6. Which of the following is a widely misused and abused depressant?
   - ☐ a. Nicotine
   - ☐ b. Caffeine
   - ☐ c. Alcohol
   - ☐ d. Cocaine

7. For all snakebites, it is important to:

- [ ] a. Keep the affected area below heart level if possible
- [ ] b. Ice the area
- [ ] c. Drain the venom
- [ ] d. Wrap the limb tightly

8. A very important step in determining what a patient was poisoned by is:

- [ ] a. Taking the initial set of vital signs
- [ ] b. Conducting the scene survey
- [ ] c. Conducting the primary survey
- [ ] b. Monitoring vital signs

9. Which of the following are you likely to find if someone has overdosed on stimulants?

- [ ] a. Slurred speech
- [ ] b. Sudden mood changes
- [ ] c. Hallucinations
- [ ] d. Sweating and chills

Heat- and Cold-Related Emergencies

For Your Review
Read Chapter 18 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Frostbite: _____

Heat cramps: _____

Heat exhaustion: _____

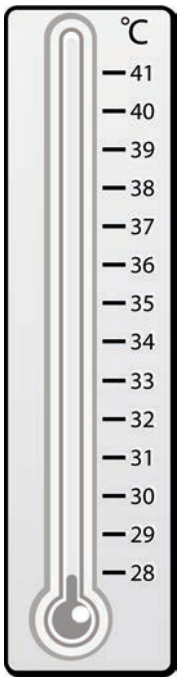
Heat stroke: _____

Hypothermia: _____

Fill in the Blanks

1. Fill in the following conditions beside the appropriate body temperature on the thermometer below.

Normal body temperature
Heat cramps
Heat exhaustion
Heat stroke
Mild hypothermia
Moderate hypothermia
Severe hypothermia



2. Signs and Symptoms
Fill in the signs and symptoms of each of the following emergencies.

Heat Stroke	Heat Exhaustion	Heat Cramps

3. List five groups of people who are at risk for heat- or cold-related illness.

i. _____

ii. _____

iii. _____

iv. _____

v. _____

What Would *You* Do?

Read the following scenarios and answer the questions below.

Scenario 1

A landscaper is out working on a yard on a hot summer day. He begins to get a headache, which he passes off as a lack of sleep. He keeps working as he has to get this job done in two days. After another half-hour, he feels weak and dizzy and needs to sit down. While he is sitting, his stomach begins to turn. He wipes his forehead, which is sweaty and cool to the touch.

1. The landscaper is most likely suffering from:

- ☐ a. Heat cramps
- ☐ b. Heat exhaustion
- ☐ c. Heat stroke
- ☐ d. Heart attack

2. What would you do for this man?

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 landscaper 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 the latter stage of a heat emergency?

Scenario 2

A five-year-old boy is out in his yard, building a snow fort with his friend from down the street. His mother has bundled him up as well as possible and is watching him from the front window. The two children are out playing for hours, digging snow, sledding, and running around. It's time for dinner, and the mother calls the children into the house.

1. When her son comes into the house, he tells her his tummy and his head don't feel very good. She checks his forehead with the back of her hand and notes that his skin is cool, pale, and moist. The boy is most likely suffering from:

- ☐ a. Frostbite
- ☐ b. Mild hypothermia
- ☐ c. Heat exhaustion
- ☐ d. A cold

2. The boy's friend, who is staying over for dinner, is shivering when she comes into the house. She takes off her thin jacket and hangs it on the coat rack. Her lips have a slight blue tinge to them, and her skin is pale. She is most likely suffering from:

- ☐ a. Frostbite
- ☐ b. Poisoning
- ☐ c. Moderate hypothermia
- ☐ d. Mild hypothermia

3. What should the mother do for both of these children?

4. When caring for her son's friend, she notes that the girl's fingers are very cold and yellowish. When she holds the child's hand in her own, the girl says she can't feel it very well. What should the mother do?

- ☐ a. Soak the hand in warm water until the fingers turn red
- ☐ b. Rub the area until it warms up
- ☐ c. Bandage the cold fingers until they are warm
- ☐ d. Soak the hand in hot water until the fingers turn red

5. When bandaging the fingers, gauze should be placed between the fingers. T or F

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Which is NOT one of the general care steps for a heat-related illness?
   - a. Cool the body
   - b. Minimize shock
   - c. Obtain advanced medical care
   - d. Give fluids

2. If someone is suffering from hypothermia, his pulse is most likely:
   - a. Weak and rapid
   - b. Slow and irregular
   - c. Normal
   - d. Rapid and irregular

3. If using ice to cool someone suffering from heat stroke, in which of the following places would you NOT need to put ice packs?
   - a. Around the ankles
   - b. In the armpits
   - c. On the neck
   - d. On the abdomen

4. If you are doing a primary survey on an unconscious person possibly suffering from hypothermia, for how long should you check the pulse?
   - a. Up to 10 seconds
   - b. Up to 30 seconds
   - c. Up to 45 seconds
   - d. Until you find a pulse

5. When warming someone with hypothermia, you should do so:
   - a. Aggressively
   - b. Quickly
   - c. Gradually
   - d. Only after he has stopped shivering

6. Refusing to drink water, changing level of consciousness, and vomiting are all signs that:
   - a. The patient has heat exhaustion
   - b. The patient's condition is worsening and advanced medical care is needed
   - c. The patient has been poisoned
   - d. The patient is progressing from mild to moderate hypothermia

Special Populations and Crisis Intervention

For Your Review
Read Chapter 19 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Active listening: _____

Alzheimer's disease: _____

Assault: _____

Behavioural disorder: _____

Child abuse: _____

Developmental disability: _____

Elder abuse: _____

Emotional crisis: _____

Hearing impairment: _____

Mental disability: _____

Nonverbal communication: _____

Physical assault: _____

Physical disability: _____

Sexual assault: _____

Sudden infant death syndrome (SIDS): _____

Suicide: _____

Visual impairment: _____

Do You Know…

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

   i. _____

   ii. _____

   iii. _____

   iv. _____

   v. _____

2. Matching
   Draw a line to match each stage of grief, on the left, with the correct description, on the right.

Stage of Grief	Description
Bargaining	Refusing to accept the fact that the situation has occurred
Anxiety	An unspoken promise of something in exchange for returning to the pre-existing condition or an extension of life
Acceptance	Feelings of worry, uncertainty, and fear
Denial/disbelief	Pain and discomfort are eased
Guilt/depression	Expressing verbal or physical aggression
Anger	Placing the blame on oneself

3. Nonverbal Communication
   Circle the items that are considered nonverbal communication.

Moving down to someone's eye level	Placing your hands on your hips
Asking open-ended questions	Repeating what a patient has said
Body posture	Sign language
Nodding	Smiling

Fill in the Blanks

1. Fill in the table with the corresponding age range and specific things to consider when assessing that age group.

Age Group	Age Range (years)	Things to Consider
Baby		
Toddler		
Preschooler		
School-aged		
Adolescent		

2. Differences Between Age Groups
   In the table below, describe differences in the systems listed here in comparison with a normal, middle-aged, healthy adult.

Differences in Children	Body System	Differences in Older Adults
	Musculoskeletal	
	Integumentary	
	Respiratory	
	Nervous	

What Would *You* Do?
Read the following scenarios and answer the questions below.

Scenario 1
You arrive at the local shopping mall to attend to a 78-year-old man who tripped and fell in the food court. As you approach, you see that he is conscious and has bruises on his arms. He is lying on the floor holding his arms against his chest and struggling to breathe. He looks up at you when you identify yourself but does not respond verbally. When you ask him a question, he just shrugs and looks puzzled.

1. How will you communicate with the man?

2. You expose his chest and see bruising on the right side, at the nipple line. You do not see any other visible signs of injury. You should suspect:
- ☐ a. A broken pelvis
- ☐ b. Congestive heart failure
- ☐ c. A broken rib
- ☐ d. A ruptured kidney

3. You take a set of vital signs and get the following:
   Level of consciousness: alert
   Breathing: 24, regular, and shallow
   Pulse: 88, regular, and full
   Skin: flush, warm, moist
   Blood pressure: 138/86
   Pupils: equal, round, and reactive

   Which of these vital signs would be normal for someone of this age?

4. List three other complications that may have arisen from his fall due to his age.

   i. _____

   ii. _____

   iii. _____

Scenario 2
A man is standing at a bus stop, waiting to go to work, when a woman approaches, talking to herself in what seems like an animated conversation. Her hair is messy, she is wearing only one shoe, and her sweater, covered in stains, is only half on. He sees a wild look in her eyes. Waving her hands in the air, she tries to engage him in the conversation. When he looks away, she starts screaming and shaking her fist at him in an agitated way. He walks a little bit away from her, takes out his cellphone, and calls for help.

1. If you were to arrive at this scene, what would be your main concern?
- ☐ a. Treating any injuries
- ☐ b. Your safety
- ☐ c. Treating for shock
- ☐ d. Assessing vital signs

2. When caring for this woman, it is important to attempt to find out whether the nature of the emergency is behavioural or:

- ☐ a. Psychiatric
- ☐ b. Medically induced
- ☐ c. Stress-induced
- ☐ d. Caused by an underlying injury or illness

3. What conditions may lead to an altered mental status?

Scenario 3

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 the law enforcement officer.

1. You should treat the area as a crime scene. T of 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. The woman's boyfriend is finished with the law enforcement officer. He should:

- ☐ a. Remain with the woman to provide emotional support
- ☐ b. Leave the area so she can have privacy
- ☐ c. Help her to go change her clothes and wash her face so she will feel better
- ☐ d. Look around for clues as to what happened

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Which of the following special problems are more common in children than in adults?

- ☐ a. High fever
- ☐ b. Breathing emergencies
- ☐ c. Injury
- ☐ d. All of the above

2. Which of the following is NOT a type of elder abuse?

- ☐ a. Financial
- ☐ b. Substance
- ☐ c. Physical
- ☐ d. Neglect

3. If you suspect a child has epiglottitis, you should:

- ☐ a. Put the child in a cool bath
- ☐ b. Examine the throat for discoloration
- ☐ c. Avoid examining the throat
- ☐ d. Take spinal precautions

4. Which of the following is NOT a common fear for children?

- ☐ a. Animals
- ☐ b. The unknown
- ☐ c. Strangers
- ☐ d. Illness and injury

5. What is difficult to determine when caring for an injured patient with a physical disability?

- ☐ a. The extent of any neurological damage
- ☐ b. Which problems are new and which are pre-existing
- ☐ c. Whether to treat for shock
- ☐ d. All of the above

6. 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 she can see your shadow
- ☐ b. Stay very quiet so the patient can hear what else is going on around her
- ☐ c. Speak loudly and enunciate every word so the patient can hear you properly
- ☐ d. Explain everything you are doing, to help alleviate anxiety

7. Which of the following is NOT a cause of behavioural or psychiatric disorders?

- ☐ a. Organic
- ☐ b. Endocrine
- ☐ c. Situational
- ☐ d. Psychiatric

8. Which of the following is true regarding terminal illness?

- ☐ a. It can happen to anyone at any age
- ☐ b. It is curable with expensive medication and specialized treatment
- ☐ c. It is often a very emotionally charged situation
- ☐ d. Both a and c

9. What constitutes a high fever in children, and what is the initial care to give?
- [ ] a. 39°C (102°F); gently cool the child
- [ ] b. 40°C (104°F); treat the child for shock
- [ ] c. 39°C (102°F); give the child ASA
- [ ] d. 41°C (106°F); put the child in an ice bath

10. How do a child's normal pulse and respiratory rate compare with those of an adult?
- [ ] a. The pulse is slower, and the respiratory rate is faster
- [ ] b. Both the pulse and the respiratory rate are faster
- [ ] c. The pulse is faster, and the respiratory rate is slower
- [ ] d. Both the pulse and the respiratory rate are slower

11. Which of the following is an open-ended question?
- [ ] a. Are you feeling okay?
- [ ] b. What problems are you having?
- [ ] c. Where are you feeling pain?
- [ ] d. Is there someone you want me to contact?

12. Which of the following is NOT a behaviour involved in active listening?
- [ ] a. Avoiding criticism or rejection of the patient's statements
- [ ] b. Using open-ended questions
- [ ] c. Repeating back what the patient has said, in your own words
- [ ] d. Saying "I understand" at the end of every sentence someone says

13. Crisis management may be needed in which of the following situations?
- [ ] a. When a responder is not able to save a baby from drowning
- [ ] b. When a responder has responded to a plane crash
- [ ] c. When a responder's partner sustains a life-threatening injury while working at a scene
- [ ] d. All of the above

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

15. Which of the following could be considered a common motivation for suicide?
- [ ] a. A bad mark on a school test
- [ ] b. A failed relationship
- [ ] c. A broken ankle
- [ ] d. All of the above

Childbirth

For Your Review
Read Chapter 20 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, 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: _____

Do You Know…

1. Childbirth Positions
   Draw side-view diagrams or describe the positions for a woman in the following three situations.

   Normal delivery

   Prolapsed cord

   Third-trimester bleeding

2. What are the four stages of labour?

   i. _____

   ii. _____

   iii. _____

   iv. _____

3. Why is a prolapsed cord dangerous?

4. List the complications that could occur during pregnancy. Why are these dangerous to the pregnant woman?

What Would *You* Do?

Read the following scenario and answer the questions below.

On a snowy January day, you are called to the fourth floor of your workplace, where a colleague, who is due to go on maternity leave in a week, is having abdominal cramps. She has had them all day, but they seem to be getting worse in the last half-hour, and they keep coming and going. She is sitting in her chair holding her stomach.

1. Which of the following questions may you want to ask her?
   - ☐ a. Do you think you are going into labour?
   - ☐ b. Is this your first pregnancy?
   - ☐ c. What are the cramps like?
   - ☐ d. Both b and c

2. After a few minutes, a gush of clear fluid soaks her pants. This would indicate:
   - ☐ a. The placenta is being expelled
   - ☐ b. The woman has had a miscarriage
   - ☐ c. The amniotic sac has ruptured
   - ☐ 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 are actually lasting approximately 70 seconds and are approximately 2 minutes apart. One of your co-workers has obtained advanced medical care, but the snowy roads mean the responders may be delayed. You should:
   - ☐ a. Drive the woman to the hospital yourself
   - ☐ b. Have the woman lie down
   - ☐ c. Pack the vagina with sterile dressings
   - ☐ d. Tell her to hold in the baby

4. After ensuring the woman has privacy and putting clean blankets under and over her, you apply a non-rebreather mask with high-flow oxygen and put on all appropriate personal protective equipment. You now 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. What are the two priorities of care for a newborn baby?

   i. _____

   ii. _____

Test Your Knowledge

Circle the best answer to each of the following questions.

1. How does slow, deep breathing through the mouth help a woman in labour?
   - a. Aids in muscle relaxation
   - b. Distracts her
   - c. Provides adequate oxygen
   - d. All of the above

2. How many stages of labour are there?
   - a. 1
   - b. 2
   - c. 3
   - d. 4

3. When you assess a newborn, you find a pulse of 90. You should:
   - a. Begin CPR
   - b. Begin artificial ventilations
   - c. Take a blood pressure
   - d. Treat for shock

4. 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

5. 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

6. Which of the following do you need to assist with the delivery of a baby?
   - a. Clamps or cloth for the umbilical cord; forceps; bag-valve-mask
   - b. APGAR scale; bulb syringe; nasal cannula
   - c. APGAR scale; forceps; clean towels
   - d. Clamps or cloth for the umbilical cord; bulb syringe; clean towels

7. If you see the umbilical cord wrapped around the baby's neck, you should:
   - a. Gently move the cord over the head
   - b. Pull the baby out quickly
   - c. Push the baby back in and then unwrap the cord
   - d. Increase oxygen flow to the mother

8. If a newborn does not begin to cry on its own, 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 with a portable suction device
   - d. Begin CPR

9. To control vaginal bleeding after the delivery of the baby, you can:
   - a. Pack the vagina with sterile dressings and elevate the woman'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 a recovery position

10. The placenta will come out of the vaginal opening:
    - a. Within 20 minutes after the delivery of the baby
    - b. Just before the baby is delivered
    - c. Approximately one hour after the delivery of the baby
    - d. At the end of the fourth stage of labour

Reaching and Moving Patients

For Your Review
Read Chapter 21 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Body mechanics: _____

Chocking: _____

Drowning: _____

Lifejacket: _____

Personal flotation device (PFD): _____

Do You Know…

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 in which you may need to move someone before providing care?
   i. _____
   ii. _____
   iii. _____
3. What are the five points to consider before deciding if you can move someone quickly and safely?
   i. _____
   ii. _____
   iii. _____
   iv. _____
   v. _____

What Would *You* Do?
Read the following scenario and answer the questions below.

You arrive at a marina where you see a young girl (approximately 10 years old) about 10 metres (33 feet) out in the water, frantically trying to keep her head above water. There is a small building nearby, where all the boat equipment is kept.

1. What type of equipment should you obtain?

2. What should you keep in mind when you attempt to get the device to the girl?

3. The girl loses consciousness just as you are pulling her towards the dock. You are able to reach out and grab her. What should you keep in mind when attempting to reach her?

4. You pull her out of the water. What should your next step be?
- ☐ a. Begin CPR
- ☐ b. Begin rescue breathing
- ☐ c. Check the ABCs
- ☐ d. Treat for shock

5. You find that the girl is not breathing but has a pulse. You should:
- ☐ a. Begin CPR
- ☐ b. Give her one ventilation every 3–5 seconds
- ☐ c. Give her one ventilation every 5–6 seconds
- ☐ d. Put her in the recovery position

Test Your Knowledge

Circle the best answer to each of the following questions.

1. As a responder, why is it important to beware of an airbag that did not inflate during a motor vehicle collision?
- ☐ a. It might indicate a head or spine injury
- ☐ b. It might indicate the vehicle is poorly made
- ☐ c. The airbags may still be charged and could inflate at any time
- ☐ d. None of the above

2. If someone has fallen through the ice, you should:
- ☐ a. Grab the patient's hands and pull him out of the water
- ☐ b. Use a reaching assist for the patient to grab onto
- ☐ c. Throw something for the patient to grab onto
- ☐ d. Either b or c

3. Someone is unconscious and has a suspected head and/or spine 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. Pack-strap carry
- ☐ d. Any of the above

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

5. Which of the following should be done to help stabilize a vehicle from moving while care is being given?
- ☐ a. Chock the wheels
- ☐ b. Put the car in "park"
- ☐ c. Have bystanders stand in front and back of the car and hold it
- ☐ d. Both a and b

6. In which of the following cases would you assume a vehicle is unstable?
- ☐ a. It is overturned
- ☐ b. It is on a slippery surface
- ☐ c. It is on a hill
- ☐ d. Always assume it is unstable until it is made to be stable

7. If you are required to break a vehicle window to gain access to an injured patient, you should first:
- ☐ a. Have the patient move to another spot in the car
- ☐ b. Protect the patient and responders as much as possible
- ☐ c. Have someone squeeze into the car and maintain manual in-line stabilization
- ☐ d. All of the above

8. There are many commercial devices on the market to assist in moving a patient. T or F

9. There are two people in a car whom you are not able to gain access to due to a nearby downed electrical wire. One person is conscious, the other is unconscious. The driver's side window is down. You could:
- ☐ a. Explain to the conscious person how to begin care for the unconscious person
- ☐ b. Have someone move the wire so you can gain access to the vehicle
- ☐ c. Run and jump into the open window
- ☐ d. Have the conscious person pull the unconscious person out of the vehicle to where you are standing

Multiple Casualty Incidents

For Your Review
Read Chapter 22 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Incident command system (ICS): _____

Multiple casualty incident (MCI): _____

START system: _____

Triage: _____

Fill in the Blanks

1. Triage Exercise
   You are dispatched to a reported collapse of a building, possibly due to an explosion. As you arrive, you see several people lying about. The incident commander tells you to perform triage and follow up with a report.

   You survey the scene and begin triage of the 19 patients listed below. Determine their triage category. What is the reason for your decision?

Patient	Injury	Information	Triage Category	Reason for Selection
1	Sucking chest wound	Respirations: over 30 Pulse (radial): absent LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
2	Five-month-old baby	Respirations: over 30 Pulse (brachial): present LOC: unresponsive	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
3	No apparent injuries	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
4	Impaled metal rod in left eye	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	

Patient	Injury	Information	Triage Category	Reason for Selection
5	No visible injuries	Respirations: none Pulse (radial): absent LOC: unresponsive	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
6	Skin moist and clammy; states he is diabetic	Respirations: under 30 Pulse (radial): absent LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
7	Severe difficulty breathing; chest sinks in during inhalation	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
8	Amputated right arm; controlled bleeding	Respirations: over 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
9	Chest pain (sudden onset); breathing regular	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
10	Head wound with brain matter visible	Respirations: absent Pulse (radial): absent LOC: unresponsive	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
11	30% full-thickness burns and 50% partial-thickness burns	Respirations: absent Pulse (radial): present LOC: unresponsive	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
12	Pinned under pillar	Respirations: under 30 Pulse (radial): present LOC: confused	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
13	Broken elbow	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
14	Bleeding scalp wound; facial abrasions; broken nose	Respirations: over 30 Pulse (radial): present LOC: confused	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
15	Compound femur fracture	Respirations: under 30 Pulse (radial): absent LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
16	Impaled glass pane in abdomen	Respirations: under 30 Pulse (radial): absent LOC: confused	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	

Patient	Injury	Information	Triage Category	Reason for Selection
17	Minor cuts and scrapes; injured ankle	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
18	Unable to move; no verbal response	Respirations: under 30 Pulse (radial): present LOC: awake but stares into space	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	
19	Pregnant female (8 months); abdominal pressure; urge to push; injured leg	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	__ Immediate __ Delayed __ Minor __ Dead/non-salvageable	

What Would *You* Do?

Read the following scenario and answer the questions below.

A responder arrives at the scene of a train derailment near the Alberta/British Columbia border. She is put in charge of triaging one of the cars, which has hopped the track and gone front first into the mountainside. She is given the go-ahead to enter the car as it has been stabilized.

1. According to the START system, upon entering the car, what is the first thing she should do?

2. She begins triaging. The first patient she assesses receives a black tag. What conditions may she have found to warrant a black tag?

3. She encounters a 43-year-old gentleman who is anxious and looks pale. He has a respiration rate of 24, his radial pulse is present, and he is alert and oriented. What colour tag should he receive?

☐ a. Black/grey
☐ b. Red
☐ c. Green
☐ d. Yellow

4. She has finished triaging the 14 patients in the car and has reported to the incident commander. She goes back to the car to begin treatment while waiting for additional resources. One of the patients on the car who had a green tag is now unconscious. What should she do?

☐ a. Begin treating the other green-tagged patients
☐ b. Change the now unconscious patient's tag to black and move on
☐ c. Reassess the newly unconscious patient and retag appropriately
☐ d. Begin treating the unconscious patient immediately

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Which of the following is NOT checked in the START process?

☐ a. Circulation
☐ b. Blood pressure
☐ c. Level of consciousness
☐ d. Breathing

2. In which of the following situations would triage be appropriate?

☐ a. A single responder arrives at the scene of a five-car pileup
☐ b. A single responder arrives at the scene where a patient has fallen down a flight of stairs and sustained multiple injuries
☐ c. Four responders arrive at the scene of a motor vehicle collision involving a pedestrian and three patients in the car
☐ d. All of the above

3. When checking circulation using the START system, which of the following do you check?

- ☐ a. Femoral pulse
- ☐ b. Carotid pulse
- ☐ c. Brachial pulse
- ☐ d. Radial pulse

4. Which of the following is NOT an advantage of the incident command system?

- ☐ a. Divided into large groups of people in each unit who can all work together
- ☐ b. Uses terms commonly understood by all parties involved
- ☐ c. Includes one commander who has the authority to get things done
- ☐ d. Provides one unified command structure

5. Once a trained responder assumes the position of incident commander, when can that role be turned over?

- ☐ a. When law enforcement personnel take over
- ☐ b. After the last patient is triaged
- ☐ c. When a responder with more MCI experience takes over
- ☐ d. Whenever she chooses to do so

6. After checking for breathing, which you find to be normal, you cannot find a radial pulse. You should:

- ☐ a. Look for the carotid pulse
- ☐ b. Check the level of consciousness
- ☐ c. Colour-code the patient black or grey
- ☐ d. Colour-code the patient red

7. The first thing to do in a triage system when using the START system is:

- ☐ a. Locate all the patients
- ☐ b. Clear the area of all patients with only minor problems
- ☐ c. Clear away all debris that could become a hazard
- ☐ d. Care for anyone who has a life-threatening condition

Communications and Transportation

For Your Review
Read Chapter 23 of *Emergency Care*, then complete the following activities.

Key Terms
Referring to *Emergency Care*, define the following terms:

Downwind: _____

Freeboard: _____

Landing zone: _____

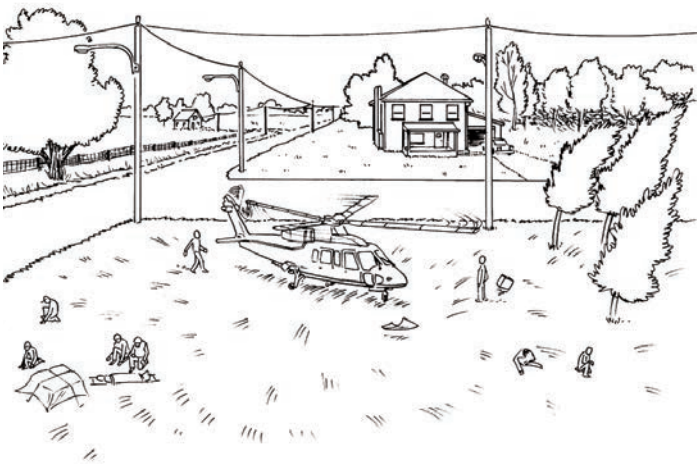
Right-of-way: _____

Routine maintenance: _____

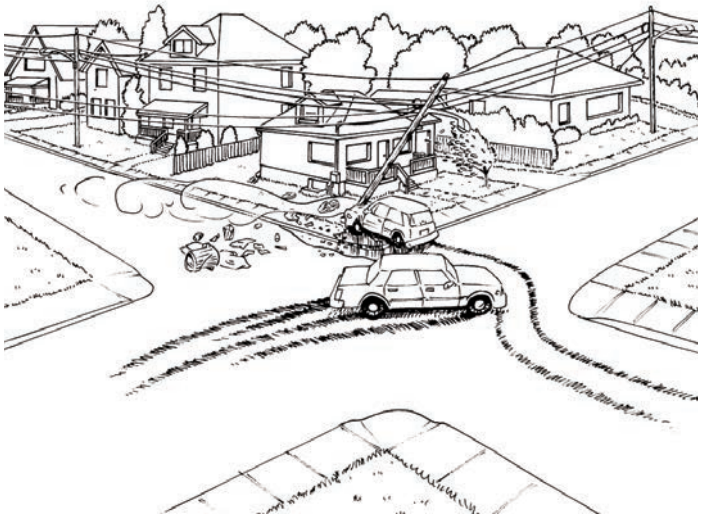
Upwind: _____

Do You Know…

1. What is incorrect in the following diagram?



2. Where would you position your vehicle? Indicate your answer by marking an "X" or by drawing a vehicle in the correct location.



What Would *You* Do?

Read the following scenario and answer the questions below.

You are helping a man on your ship who walked up three flights of stairs and is now complaining of chest pain, radiating into his jaw. You have him on oxygen at 12 lpm, and he has taken one dose of his prescribed nitroglycerin, as well as two 80 mg tablets of ASA. The pain is still not gone. His pulse is 110, irregular and weak, and his breathing is 12, regular, and shallow. His skin is pale and moist. All other vital signs are normal.

1. What would you tell the arriving advanced medical care personnel when you transfer the patient to them?

2. The doctor on the ship decides it is best to evacuate the patient to shore. He asks you to help prepare the patient for ship-to-ship transfer. How would you go about doing this?

Test Your Knowledge

Circle the best answer to each of the following questions.

1. Factors that influence the safe operation of a vehicle include:
   - ☐ a. Environmental conditions
   - ☐ b. Size and weight of the vehicle
   - ☐ c. Attitude
   - ☐ d. All of the above

2. An emergency vehicle should be disinfected:
   - ☐ a. At the end of every week
   - ☐ b. Whenever local guidelines dictate
   - ☐ c. At the end of every shift
   - ☐ d. After every transport

3. You can drive a private vehicle as if it were an emergency vehicle. T or F

4. Warning devices, when responding to an emergency scene, should be used based on:
   - ☐ a. Local protocols
   - ☐ b. Your speed
   - ☐ c. Provincial/territorial motor vehicle laws
   - ☐ d. Both a and c

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

6. Which of the following can influence your attitude?
   - ☐ a. Personality
   - ☐ b. Experiences
   - ☐ c. Prejudices
   - ☐ d. All of the above

7. Exceeding the speed limit and proceeding through red lights are:
   - ☐ a. Rights given to drivers of an emergency vehicle
   - ☐ b. Privileges given to drivers of an emergency vehicle
   - ☐ c. Strictly prohibited by ALL motor vehicles
   - ☐ d. Practices accepted by most provincial/territorial transportation departments