

Soft Tissue Injuries

For Your Review

Read Chapter 11 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Bandage: _____

Blast injury: _____

Burn: _____

Closed wound: _____

Critical burn: _____

Crush injury: _____

Dressing: _____

Full-thickness burn: _____

Open wound: _____

Partial-thickness burn: _____

Soft tissues: _____

Superficial burn: _____

Wound: _____

Do You Know...

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



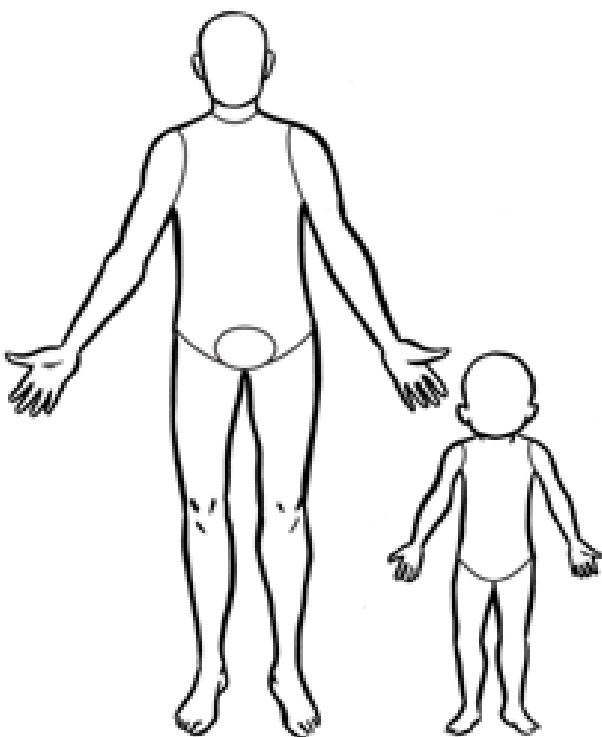
2. What are the four main types of open wounds?

- i. _____
- ii. _____
- iii. _____
- iv. _____

Fill in the Blanks

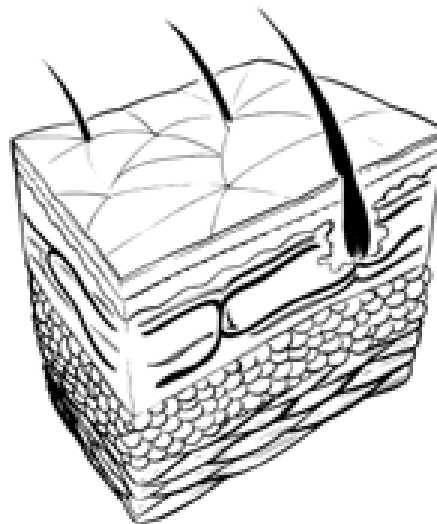
1. Estimating the Extent of Burns

Fill in 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, label the four layers. On the diagram, indicate which layers are affected in 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 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 person likely develop shortly?
 - a. Shock
 - b. Hemothorax
 - c. Angina
 - d. Infection

3. What four things would you do for the amputated hand to increase the chances of successful reattachment?

- i. _____
- ii. _____
- iii. _____
- iv. _____

Scenario 2

An older lady slips in the kitchen. As she falls, she reaches out and her hand hits the handle of the 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 body burned.
 - a. 9%
 - b. 18%
 - c. 27%
 - d. 36%
2. How will you cool 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 one small area at a time
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. 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
2. What is the purpose of a bandage?
 - a. Prevents air from reaching the wound and keeps dressings in place
 - b. Provides a sterile covering for the wound
 - c. Applies pressure to control bleeding and supports injured body parts
 - d. Allows the wound to breathe and prevents infection
3. 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
4. If a person 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
5. If you bandage a forearm, you should leave the fingers of the hand exposed. T or F
6. 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
7. 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

8. A myocardial contusion is:
- A bruise to the heart
 - Any bruise located in the torso area
 - Any soft tissue injury to the heart
 - A rupture of any of the major vessels supplying blood to the heart
9. The area around a recent wound is now red and swollen. The area feels warm to the touch. This may indicate:
- A quick healing process
 - Severe internal bleeding
 - An infection
 - A superficial burn

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

Skill Review

To review your skills, see the review section in Chapter 11 of the *Emergency Care Manual*.

Musculoskeletal Injuries

For Your Review

Read Chapter 12 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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. _____

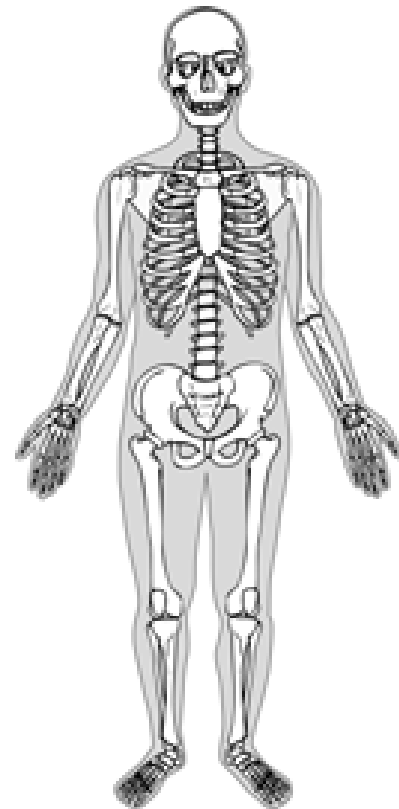
5. What are the four general types of splints?

- 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 person has a broken lower leg. Draw or describe what you would do to treat this person.



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 person 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 person 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 person 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

Skill Review

To review your skills, see the review section in Chapter 12 of the *Emergency Care Manual*.

Head and Spine Injuries

For Your Review

Read Chapter 13 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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 spine board. (Assume that the injured person is lying on his back.)

- _____ Position the spine board behind the person
- _____ Secure the thighs to the board
- _____ Apply a cervical collar
- _____ Ensure the person 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
- _____ Roll the injured person on his side
- _____ Roll the person onto the board
- _____ Secure the hips to the board

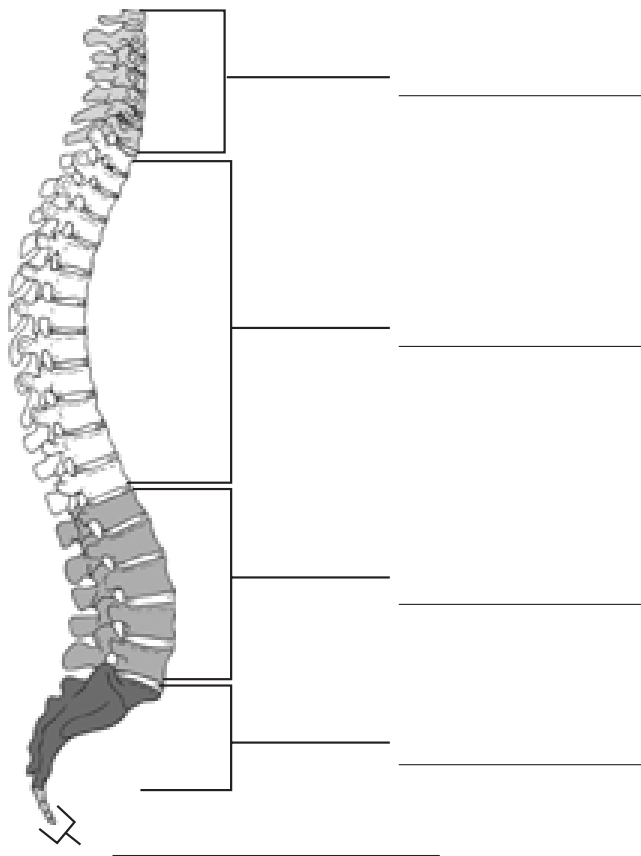
2. List eight signs and symptoms that indicate someone may have a head or spine injury.

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____
- vi. _____
- vii. _____
- viii. _____

Fill in the Blanks

1. The Spinal Regions

Label the four spinal regions. To the side of each region, list the parts of the body that could be affected if damage occurs in that region.



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 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 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?

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

Test Your Knowledge

Circle the best answer to each of the following questions.

- In which of the following cases should you NOT move the head of someone with a spinal injury?
 - If there is severe angulation to one side
 - If there is resistance when moving the head
 - If the person complains of pain when moving the head
 - All of the above
- If someone is bleeding from the scalp and there is a depression in the skull, how would you control the bleeding?
 - Apply pressure to the carotid pressure point
 - Apply pressure on the area around the wound
 - Apply direct pressure on the wound
 - Do not apply any pressure near the wound
- Which of the following situations involving a nosebleed would indicate obtaining more advanced medical care?
 - It is caused by high blood pressure
 - It is the fourth nosebleed in a one-year period
 - It is caused by low blood pressure
 - It is the first nosebleed the person has ever had
- An injured person is wearing a hockey helmet with a full face mask. In which of the following cases would you remove the helmet?
 - Always remove the helmet right away
 - The helmet is putting pressure on the back of the head and is causing a headache
 - The helmet interferes with rescue breathing or stabilizing the head in line with the body
 - Never remove the helmet

- 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:
 - Not return to the game
 - Go on the field but try not to exert herself too much
 - Go back to the game
 - Switch positions with the goalie so she won't have to run as much
- A change in which of the following vital signs may indicate a head injury?
 - Pupils and level of consciousness
 - Pulse and blood pressure
 - Breathing rate
 - All of the above
- Eye injuries are usually life-threatening emergencies. T or F
- If a neck injury is bleeding severely, you should:
 - Apply pressure to the carotid pressure point
 - Apply a pressure bandage, being careful not to constrict the carotid arteries
 - Tape a bulky dressing over the wound
 - Have the person lie on his side with the injured side up

Skill Review

To review your skills, see the review section in Chapter 13 of the *Emergency Care Manual*.

Chest, Abdominal, and Pelvic Injuries

For Your Review

Read Chapter 14 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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 scramble
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	Weakness
Coughing up blood	Obvious deformity
Difficulty breathing	Tenderness in the abdomen
Protruding organs	Bruising
Loss of sensation in the lower limbs	
Pain at the injury site that increases with breathing	
	Bluish skin

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 ribcage.

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 cravat
3. Using the covering you chose in the previous question, how would you bandage this injury?
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. Wet 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 spine board. T or F
2. If someone receives a penetrating trauma about 5 cm 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 person 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 person's legs should be:
 - a. Bent with knees pulled towards the chest
 - b. Extended straight
 - c. Raised approximately 15 cm
 - 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 person's arm to the chest
 - c. Have the person 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



Sudden Illnesses

For Your Review

Read Chapter 15 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Altitude sickness: _____

Appendicitis: _____

Blood glucose level: _____

Bowel obstruction: _____

Diabetic emergency: _____

Epilepsy: _____

Fainting (syncope): _____

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 give her a glass of water 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 has not woken up yet. What stage of the seizure is he in?
 - a. Clonic
 - b. Aura
 - c. Postictal
 - 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 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 infec-

tions 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 person up by putting water on his face
 - b. Loosening restrictive clothing
 - c. Having the person sit up in a chair
 - d. Giving the person 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
 8. Which of the following is NOT a cause of seizures?
 - a. High fever
 - b. Hypotension
 - c. Heat stroke
 - d. Head injury

Poisoning

For Your Review

Read Chapter 16 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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 person 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 17 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Frostbite: _____

Heat cramps: _____

Heat exhaustion: _____

Heat stroke: _____

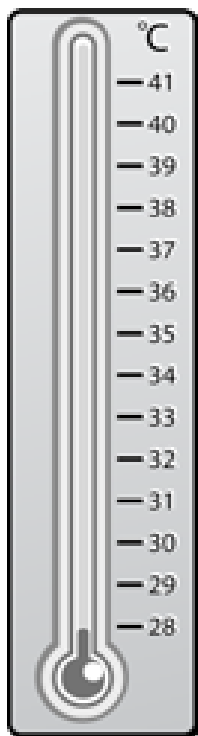
Hypothermia: _____

Fill in the Blanks

- 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

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

- _____
- _____
- _____
- _____
- _____

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 person has heat exhaustion
 - b. The person's condition is worsening and advanced care is needed
 - c. The person has been poisoned
 - d. The person is progressing from mild to moderate hypothermia

Special Populations

For Your Review

Read Chapter 18 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Alzheimer's disease: _____

Behavioural disorder: _____

Child abuse: _____

Developmentally disabled: _____

Elder abuse: _____

Hearing impaired: _____

Mental disability: _____

Physical disability: _____

Sudden infant death syndrome (SIDS): _____

Visually impaired: _____

Do You Know...

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

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____

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 (yrs)	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 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 cell-phone, 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 state?

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 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 discolouration
 - 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 person 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 person so she can see your shadow
 - b. Stay very quiet so the person can hear what else is going on around her
 - c. Speak loudly and enunciate every word so the person can hear you properly
 - d. Explain everything you are doing, to 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 (103°F); gently cool the child
 - b. 40°C (104°F); treat the child for shock
 - c. 39°C (103°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

Childbirth

For Your Review

Read Chapter 19 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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. _____
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

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 maximum 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
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

Crisis intervention

For Your Review

Read Chapter 20 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Active listening: _____

Assault: _____

Emotional crisis: _____

Nonverbal communication: _____

Physical assault: _____

Sexual assault: _____

Stress management: _____

Suicide: _____

Do You Know...

1. Matching

Draw a line to match each stage of grief to the correct description.

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 eased
Guilt/depression	Expressing verbal or physical aggressiveness
Anger	Placing the blame on oneself

2. 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	Smiling
Body posture	Sign language
Nodding	
Repeating what a person has said	
Writing down a message	

3. 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.

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 or F
2. Which of the following should you do?
 - a. Have the woman wash herself so you can see if there are any wounds that need care
 - b. Remove the woman's clothing to check for other injuries
 - c. Cover the woman and keep bystanders away
 - d. Ask the woman about the specifics of the assault
3. 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 is an open-ended question?
 - a. Are you feeling okay?
 - b. What problems are you having?
 - c. Where is the pain you are feeling?
 - d. Is there someone you want me to contact?

2. Which of the following is NOT a behaviour involved in active listening?

- a. Avoiding criticism or rejection of the person's statements
- b. Using open-ended questions
- c. Repeating back what the person has said, in your own words
- d. Saying "I understand" at the end of every sentence someone says

3. 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

4. When dealing with a scene involving a physical assault, what is your first concern?

- a. The physical injuries of the person
- b. Your own safety
- c. Documenting everything you see for police reports
- d. The emotional state of the injured person and any bystanders

5. 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

6. 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

Reaching and Moving People

For Your Review

Read Chapter 21 of the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Body mechanics: _____

Chocking: _____

Drowning: _____

Near-drowning: _____

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 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
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

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 person’s hands and pull him out of the water
 - b. Use a reaching assist for the person to grab onto
 - c. Throw something for the person to grab onto
 - d. Either b or c
3. Someone is unconscious and has a suspected spinal injury. You need to move him away from a fire. Which of the following moves should you use?
 - a. Clothes drag
 - b. Extremity lift
 - c. 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
7. If you are required to break a vehicle window to gain access to an injured person, you should first:
 - a. Have the person move to another spot in the car
 - b. Protect the injured person 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 an ill or injured person. 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 the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, 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 direct all those who can walk to get up and walk to the marked collection area down the street, where they will be treated. You begin triage of the 19 people listed below. Determine their triage category. What is the reason for your decision?

Person	Injury	Information	Triage Category	Reason for Selection
1	Sucking chest wound	Respirations: over 30 Pulse (radial): absent LOC: alert and oriented	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	
2	Five-month-old baby	Respirations: over 30 Pulse (brachial): present LOC: unresponsive	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	
3	No apparent injuries	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	
4	Impaled metal rod in left eye	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	

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

Person	Injury	Information	Triage Category	Reason for Selection
17	Minor cuts and scrapes; injured ankle	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	
18	Unable to move; no verbal response	Respirations: under 30 Pulse (brachial): present LOC: awake but stares into space	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	
19	Pregnant female (8 months); abdominal pressure; urge to push; injured leg	Respirations: under 30 Pulse (radial): present LOC: alert and oriented	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Minor <input type="checkbox"/> Dead/dying	

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 mountain side. 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 person 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?

- Black/grey
- Red
- Green/yellow
- Orange

4. She has finished triaging the 14 people 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 people on the car who had a green tag is now unconscious. What should she do?

- Begin treating the other green-tagged people
- Change the now unconscious person's tag to black and move on
- Reassess the newly unconscious person and retag appropriately
- Begin treating the unconscious person immediately

Test Your Knowledge

Circle the best answer to each of the following questions.

- Which of the following is NOT checked in the START process?
 - Circulation
 - Blood pressure
 - Level of consciousness
 - Breathing
- In which of the following situations would triage be appropriate?
 - A single responder arrives at the scene of a five-car pileup
 - A single responder arrives at the scene where a person has fallen down a flight of stairs and sustained multiple injuries
 - Four responders arrive at the scene of a motor vehicle collision involving a pedestrian and three people in the car
 - 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 ill or injured person 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 person black or grey
 - d. Colour-code the person red
7. The first thing to do in a triage system when using the START system is:
 - a. Locate all the ill or injured people
 - b. Clear the area of all people 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 the *Emergency Care Manual*, then complete the following activities.

Key Terms

Referring to your *Emergency Care Manual*, define the following terms:

Downwind: _____

Freeboard: _____

Landing zone: _____

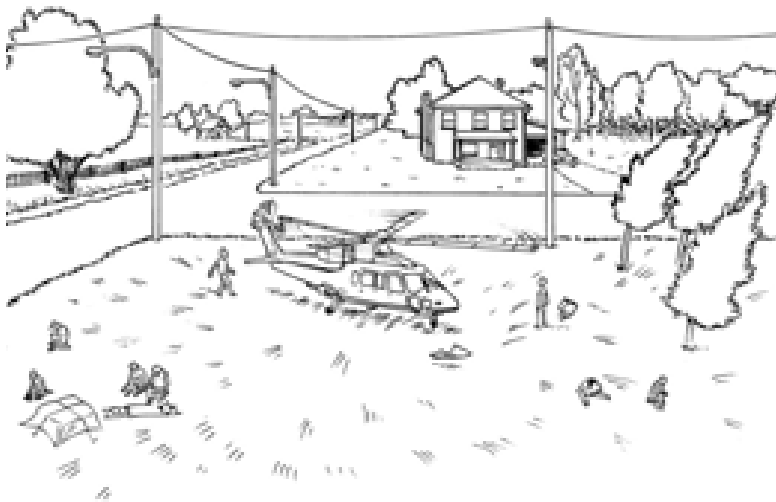
Right-of-way: _____

Routine maintenance: _____

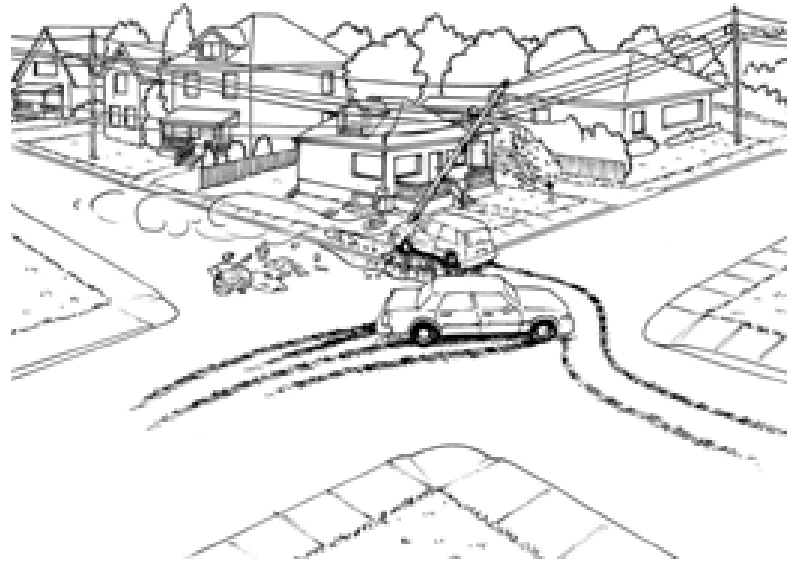
Upwind: _____

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 when you transfer the person to them?
2. The doctor on the ship decides it is best to evacuate the person to shore. He asks you to help prepare the person 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. 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
3. 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
4. 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
 - c. Present all information rapidly
 - d. Verify that everything said by the physician is located within your written protocols
5. You can drive a private vehicle as if it were an emergency vehicle. T or F
6. 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
7. 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
8. When driving an emergency vehicle, a responder is exempt from seatbelt laws. T or F
9. Which of the following can influence your attitude?
 - a. Personality
 - b. Experiences
 - c. Prejudices
 - d. All of the above
10. 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

