

Lesson 1

Preparing to Act

Learning Checkpoint 1

1. True or False: When first aid is given, the victim does not need further medical attention.
2. True or False: First aid given promptly can save lives and reduce severity of injuries.

Answers to Learning Checkpoint 1

1. False. First aid usually does not replace the need for medical care (calling 9-1-1 or the victim seeing a healthcare provider). First aid is intended to help the victim until professional help can be given. With minor injuries, however, the victim sometimes does not need to see a healthcare provider.
2. True. First aid such as giving CPR or rescue breathing or stopping bleeding can make the difference between the victim living or dying. In other cases, an injury or illness could become worse, if first aid is not given before the victim gets professional help.

Learning Checkpoint 2

1. Being prepared for an emergency means:
 - a. Knowing what to do
 - b. Being ready to act anytime, anywhere
 - c. Knowing how to get medical care for a victim
 - d. All of the above
2. It is a good idea to have a first aid kit:
 - a. In your home
 - b. In your car
 - c. On recreational outings
 - d. All of the above

Answers to Learning Checkpoint 2

1. d. All of the above. These are all important aspects of first aid training.
2. d. All of the above. You should have a first aid kit available wherever an injury may occur.

Learning Checkpoint 3

1. What number should you call to access EMS?
 - a. 9-1-1 if your community uses that number
 - b. The local emergency number (if not 9-1-1)
 - c. Your company's emergency number (when company policy)

- d. All of the above
2. Call 9-1-1 for:
 - a. Medical problems only
 - b. Police and fire services only
 - c. Medical problems and fires only
 - d. Medical problems and all emergencies
3. Who usually arrives first at the scene after you have called 9-1-1?
4. List 7 things you should be prepared to tell the EMS dispatcher when you call.

Answers to Learning Checkpoint 3

1. d
2. d
3. Usually first at the scene is a first responder, who may be a law enforcement officer, fire fighter, ski patroller, or other official with more advanced training.
4. When you call 9-1-1, be ready to give the following information:
 - Your name
 - The phone number you are using
 - The location and number of victims
 - What happened to the victim(s) and any special circumstances
 - The victim's condition
 - The victim's approximate age and sex
 - What is being done for the victim(s)

Learning Checkpoint 4

1. True or False: The best thing to do in any emergency is move the victim to your car and rush to an emergency room.
2. You have a duty to act when:
 - a. You stop at the scene of an emergency
 - b. You have taken a first aid course
 - c. You have a first aid kit with you
 - d. Your job requires you to give first aid when needed
3. Check off which victims you have consent to give first aid to:
 - ___ a. An unresponsive victim
 - ___ b. A child without parent or guardian present
 - ___ c. All victims, all of the time
 - ___ d. A victim who nods when you ask if it is okay to give him or her first aid
 - ___ e. A child whose parent or guardian gives consent for him or her
4. Check off things you should always do when giving first aid:
 - ___ a. Move the victim
 - ___ b. Do what you have been trained to do
 - ___ c. Try any first aid technique you have read or heard about
 - ___ d. Ask for the victim's consent
 - ___ e. Stay with the victim until another trained person takes over

_____ f. Transport all victims to the emergency department in your vehicle

Answers to Learning Checkpoint 4

1. False. Never move a victim unless faced with a life-threatening situation such as fire. Moving a victim is likely to make an injury worse.
2. d. If your job description requires you to provide first aid, then you have a duty to act.
3. a, unresponsive victim; b, child without guardian; d, a victim who nods consent; and e, a child whose parent or guardian consents. All these are expressed or implied consent.
4. b, d, e. Do *not* try techniques you have not been trained to perform, and do not move most victims by trying to transport them yourself, which may lead to more serious injury.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what characteristics of first aid are illustrated by this situation, as well as the actions the first aider has already taken and should take in this situation:

- The need for first aid—injuries can happen any time, anywhere
- The decision to help
- Being prepared—going when needed, knowing where the first aid kit is kept
- The child's mother clearly is giving consent for first aid for the boy
- Note also the first aider has put on gloves—there is a chance he may encounter bleeding as he checks the body's injury

Scenarios for Class Discussion

1. Driving along a quiet residential street, you come upon a car that has apparently just collided with a tree. You stop behind the car and realize the driver is still in the car, seemingly alone. You have a cell phone with you, and your first impulse is to call 9-1-1. What should you do before you call 9-1-1? What information should you have ready to give the emergency dispatcher who answers?
2. As you are leaving work, you encounter a man in the parking lot who has cut himself badly on a piece of broken glass. You are not sure if you are still considered to be at work, and you are concerned that if you give him first aid, he may later sue you if he has any complications from the injury. What five things can you do to protect yourself and prevent future legal problems?
3. On a very hot day, you see a woman who has been working outdoors suddenly fall to her knees. You rush to her, determine that she is responsive, and ask what's wrong. Before she answers, however, she collapses and seems to have passed out. You did not have a chance to ask for her consent to help. What should you do?

4. On your lunch break, you give first aid to a co-worker who has diabetes. At first she was weak and seemed at risk of fainting, but after she eats the sugar you give her, she seems better. You look at your watch and realize you need to get back to work. You ask if she's better now, and she nods, but she seems shaky when she tries to stand up. What should you do?

Answers to Scenarios

1. Before calling, quickly check that it is safe to remain on the scene. Take your phone with you and quickly look in the car to see what you can immediately determine about the number and conditions of the victim(s)—this is information you will need to give to the dispatcher. Also, be sure you know the name of the street you are on, and look for nearby house number to give the dispatcher so that professional rescuers can be sent to your location.
2. Follow these five guidelines to protect yourself in any first aid situation:
 - a. Act *only* as you are trained to act.
 - b. Get a victim's consent before giving first aid.
 - c. Do not move a victim unnecessarily.
 - d. Call for professional help.
 - e. Keep giving care until help arrives.
3. You can provide first aid in this situation because any unresponsive victim is assumed to give consent (implied consent).
4. You must stay with the victim until someone with equal or higher training takes over, or until you are absolutely certain more care is not needed. In this case the victim has not fully recovered, and you could be guilty of abandonment if you left her alone.

Lesson 2

Acting in an Emergency

Learning Checkpoint 1

1. True or False: Bloodborne diseases are transmitted only through contact with an infected person's blood.
2. True or False: The risk of getting a serious infectious disease by giving first aid is greatly reduced when you take precautions.
3. Standard precautions include:
 - a. Treat all victims as if their body fluids were infected
 - b. Always wear gloves if blood may be present
 - c. Do not touch your mouth, nose, or eyes when giving first aid
 - d. All of the above
4. Check off which of the following situations could lead to getting an infectious disease:
 a. Touching a bloody bandage in a trash can
 b. Shaking hands with a person with HIV
 c. Receiving a hepatitis B vaccination
 d. Not wearing gloves and giving first aid if you have a cut on your finger
 e. Being near a person with hepatitis C who is coughing
 f. Contact with an unresponsive victim
5. List at least three symptoms of a latex glove allergy.

Answers to Learning Checkpoint 1

1. False. Bloodborne diseases may be transmitted by contact with several different body fluids, or by objects contaminated with any of those body fluids.
2. True. Almost always you can prevent getting an infectious disease if you use precautions such as protective equipment and follow standard precautions.
3. d. All of the above. These are basic precautions based on the assumption that any person's body fluids may carry pathogens, and any contact with these fluids may lead to infectious disease.
4. a (there may be pathogens in the blood on that bandage) and d (a cut on the finger could let pathogens easily enter your body). Shaking hands does not transmit HIV; being vaccinated for HBV prevents infection and does not cause it; coughing does not transmit hepatitis C; and urine does not normally transmit pathogens (unless it contains blood), although to be safe you should wear gloves when possibly contacting a victim's urine.
5. Signs and symptoms of latex allergy may include skin rashes, hives, itching eyes or skin, flushing, watery or swollen eyes, runny nose, or an asthmatic reaction.

Learning Checkpoint 2

1. True or False: If you see someone injured in an emergency, the first thing to do is get to him or her quickly and check his or her condition.
2. When you encounter an injured victim, you should:
 - a. Give first aid until help arrives
 - b. Help a victim only if the scene is safe
 - c. Call 9-1-1 for life-threatening injuries
 - d. All of the above
3. Which scenes are unsafe?
 Spilled hazardous materials Structure fires
 Downed electrical wires Hostile person with a weapon

Answers to Learning Checkpoint 2

1. False. The first thing to do is check the scene for safety. If you enter an unsafe scene to help a victim, you could become a second victim for EMS professionals to have to care for.
2. d. All of the above. These are all general principles for giving first aid.
3. All four of these are dangerous scenes you should not enter. Stay at a safe distance and call 9-1-1.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case. Students should recognize the following:

- Because of the downed power line, it is not safe to approach the vehicle. Stay back a safe distance and encourage bystanders not to approach.
- If you have a cell telephone, call 9-1-1 immediately and describe the situation to the dispatcher so that a crew with the proper training and equipment will arrive soon.
- If safe to do so, remain at the scene to warn others away from the danger and to direct arriving EMS workers.

Scenario for Class Discussion

While you are at a meeting at work, another employee cuts herself on a shard from a broken water glass. Blood is spurting from her hand. You're not sure where the nearest first aid kit is, and you know it is important to stop the bleeding as quickly as possible. But without the first aid kit, you have no gloves to wear to help stop her bleeding. What are two possible ways to handle this situation without risking contacting her blood?

Answer to Scenario

First, you can improvise protective equipment, such as putting a plastic bag or another barrier over your hand. Alternatively, you can direct the victim to use her own hands to stop the bleeding (as Chapter 4 discusses) and avoid contact with the blood yourself.

Lesson 3

The Human Body

Learning Checkpoint 1

1. Name two organs inside the thoracic cavity.
2. Which of the following is a function of the respiratory system?
 - a. Inhaling and exhaling
 - b. Moving oxygen into the blood
 - c. Moving carbon dioxide out of body tissues
 - d. All of the above
3. At what structure is an airway obstruction most likely to occur?
4. The heart pumps blood to all body tissues through which blood vessels?
 - a. Arteries
 - b. Veins
 - c. Capillaries
 - d. All of the above
5. Check off which cardiac problems can affect tissue oxygenation
 cardiac arrest diabetes
 kidney failure myocardial infarction
 asthma tetanus infection
 dysrhythmia

Answers to Learning Checkpoint 1

1. heart, lungs
2. d
3. pharynx (throat)
4. a
5. These are cardiac problems that can affect tissue oxygenation: cardiac arrest, myocardial infarction, and dysrhythmia. Asthma is a respiratory problem, not a cardiac problem, although it too can affect tissue oxygenation.

Learning Checkpoint 2

1. Check off injuries and illnesses that may cause altered mental status
 head injuries stroke
 seizure diabetic emergencies
 high fever poisoning
 drug overdose severe infection
2. A spinal injury may result in:
 - a. Myocardial infarction
 - b. Lung infection
 - c. Paralysis
 - d. All of the above

3. Define a dislocation.
4. Why might a fractured femur be life threatening?
 - a. Loss of calcium stored in the bone
 - b. Severe bleeding
 - c. Injury to soft tissues of the leg
 - d. All of the above
5. In what situation can even a small skin cut be very serious?

Answers to Learning Checkpoint 2

1. All eight listed injuries and illnesses may result in altered mental status.
2. c
3. A dislocation is the movement of one or more bones out of their normal position in a joint.
4. b; a femur fracture can cause severe bleeding, which may be life threatening; the fracture may also cause soft tissue damage in the leg, but this is unlikely to be a life-threatening injury.
5. Even a small break in the skin can be very serious if a pathogen can enter the body, such as those pathogens causing serious illnesses (e.g., HIV).

Learning Checkpoint 3

1. What is important about vomiting?
 - a. It can lead to dehydration
 - b. It may be a sign of serious illness
 - c. Vomiting blood often indicates a serious illness
 - d. All of the above
2. Name a vaccination *all* people should have periodically throughout their lives.
3. Diabetes involves a problem in the body with which hormone?
 - a. Insulin
 - b. Bile
 - c. Steroids
 - d. Any of the above
4. Blood present in the urine always means:
 - a. A sexually transmitted disease is present
 - b. The person has a yeast infection
 - c. The person should seek medical attention
 - d. The person needs to restore electrolyte balance

Answers to Learning Checkpoint 3

1. d
2. People need a tetanus vaccine booster at least every 10 years to ensure immunity against tetanus infection, which may occur after any break in the skin.
3. a

- c; blood in urine may result from different injuries or illnesses but should always be investigated by a healthcare professional

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter.

As students will learn in the next chapter, the first necessary action is to assess the victim to determine the nature of the injury or illness and what care to give. In many cases the nature of the injury or illness will not be apparent, and it is helpful to understand what is happening inside the victim's body to know what first aid to provide. Understanding the basic functions of body systems and how they may be affected by injury or illness may help you better understand the victim's problem and immediate needs for help.

Lesson 4

Assessing the Victim

Learning Checkpoint 2

- When is the secondary assessment performed?
 - Immediately before giving CPR when needed
 - In all victims, right after the initial assessment
 - After checking for responsiveness
 - After determining there are no life-threatening conditions
- Write what each letter in the SAMPLE history stands for:
S = _____
A = _____
M = _____
P = _____
L = _____
E = _____
- Describe what signs and symptoms of injury you are looking for as you examine each part of a victim's body.

Answers to Learning Checkpoint 2

- d. The secondary assessment is performed after the initial assessment and only if the victim has no life-threatening conditions requiring care.
- S = signs and symptoms, A = allergies, M = medications, P = previous problems, L = last food or drink, and E = events leading to current situation.
- As you examine each part of a victim's body you are looking for anything out of the ordinary, such as pain, bleeding, a swollen or deformed area, unusual skin color, temperature, or moisture, or abnormal movement or sensation in an area.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case. Students should be able to explain:

- Since the victim is unresponsive, the first thing to do is check for breathing. Check him first in the position in which you find him.
- Since he is unresponsive, 9-1-1 should be called—shout for someone to call for help.
- If he is not breathing, make sure his airway is open—move him onto his back and use the head tilt, chin lift.
- If he still is not breathing, he needs *immediate* care, as you'll learn in the following chapters.

Scenarios for Class Discussion

1. You are driving a co-worker home after work when without warning he suddenly slumps forward in the seat beside you. As you brake and pull over onto the shoulder, you try to rouse him, but he seems unresponsive. As soon as you have safely stopped your car, how should you first check this victim?
2. On the job you encounter a co-worker who is lying on the ground on his back, unresponsive, because of an unknown injury or illness. You check him and find he is breathing. After calling 9-1-1 for help, how should you position this victim? Why?
3. You arrive at work and find a man lying on the ground in the parking lot, surrounded by several other workers and the man's wife, who had just dropped him off at work. He is unresponsive, but he is breathing evenly and has no obvious signs of injury or illness. Someone has already called 9-1-1. While you are waiting, you ask his wife about what happened. She says he just seemed to suddenly collapse. What are other questions you could ask to gather more information about the man's history to give the professional rescuers when they arrive?

Answers to Scenarios

1. Since you have already determined that he is unresponsive, you need to call 9-1-1 and immediately check for breathing. Open his airway and listen for breathing. If he is not breathing, start CPR.
2. Put an unresponsive breathing victim in the recovery position. This position
 - Helps keep the airway open
 - Allows fluids to drain from the mouth
 - Prevents inhaling stomach contents if the victim vomits
3. Using the SAMPLE history format, ask about any other signs and symptoms he may have been experiencing, about any allergies he may have, about whether he is taking any medications, about whether he has had any previous problems like this or other health problems, about what he last ate and drank, and about any other events that led up this incident.

Lesson 5

Basic Life Support 1: Rescue Breaths

Learning Checkpoint 1

1. Basic life support helps keep a victim alive when _____ stops.
2. For purposes of basic life support techniques, a child is defined as someone between the ages of ____ and _____.

Answers to Learning Checkpoint 1

1. breathing. Basic life support keeps victims who are not breathing (and whose heart has stopped) alive until they receive advanced medical care.
2. 1 to 8 years: this is the definition of a child for purposes of CPR and use of an AED.

Learning Checkpoint 2

1. Rescue breaths are needed to:
 - a. Get oxygen into the victim's blood
 - b. Circulate the blood to vital organs
 - c. Open the victim's airway
 - d. All of the above
2. True or False: Blow as hard as you can into the victim's mouth during rescue breathing.
3. What is the best way to confirm your breaths are going into the victim's lungs?
 - a. Listen at the victim's mouth for escaping air
 - b. Place one hand on the victim's abdomen to feel movement
 - c. Watch the victim's chest rise and fall
 - d. None of the above
4. When giving rescue breaths, give each breath over ____ second(s).

Answers to Learning Checkpoint 2

1. a. Rescue breaths move oxygen into the victim's lungs to be transferred into the blood. (Chest compressions move that blood to vital organs.)
2. False. Blowing too hard can put air in the victim's stomach and cause vomiting. Blow only hard enough to make the chest rise.
3. c. Watch the victim's chest rise and fall. This is the best way to confirm your breaths are going into the victim's lungs.
4. Give each breath over 1 second.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

- Because the victim is unresponsive, 9-1-1 should be called —yell for help and have anyone who responds call 9-1-1, or call yourself on your cell telephone as you begin to assess the victim.
- Most important, immediately check to see if the victim is breathing:
 - Open the airway with the head tilt, chin lift.
 - Look, listen, and feel for breathing for not more than 10 seconds.
 - If he is not breathing, call 9-1-1 and start CPR immediately.

Lesson 6

Basic Life Support 2: CPR

Learning Checkpoint 1

1. CPR stands for:
 - a. Cardiac position for recovery
 - b. Cardiopulmonary resuscitation
 - c. Chest pump rescue
 - d. None of the above
2. Put a check mark next to risk factors for cardiovascular disease.

<input type="checkbox"/> smoking	<input type="checkbox"/> high cholesterol levels
<input type="checkbox"/> regular aspirin use	<input type="checkbox"/> inactivity
<input type="checkbox"/> high blood pressure	<input type="checkbox"/> family history of heart disease
<input type="checkbox"/> growing older	<input type="checkbox"/> working full-time
3. The first crucial link in the cardiac chain of survival is:
4. *Call first* (before starting CPR) for which of these victims? (Check all that apply.)
 - Unresponsive nonbreathing adult victim
 - Unresponsive nonbreathing infant
 - Unresponsive nonbreathing child

Answers to Learning Checkpoint 1

1. b. Cardiopulmonary resuscitation. “Cardio” refers to the heart (chest compressions) and “pulmonary” means the lungs (rescue breathing).
2. Risk factors for cardiovascular disease include:
 - smoking
 - high cholesterol levels
 - inactivity
 - high blood pressure
 - family history of heart disease
 - growing older
3. The first crucial link in the cardiac chain of survival is early access—calling 9-1-1 to access EMS.
4. Call first for any nonbreathing unresponsive adult victim. Give 2 minutes of CPR first for a nonbreathing unresponsive infant or child.

Learning Checkpoint 2

1. When is it appropriate to start CPR?
 - a. As soon as you determine the victim is unresponsive
 - b. As soon as you determine the victim is not breathing normally
 - c. As soon as you determine the victim is both unresponsive and not breathing normally

- d. Only when you have called 9-1-1 and the dispatcher tells you to start CPR
2. Describe how to find the site for chest compressions in an adult or child victim.
3. Chest compressions in an adult should be ___ to ___ inches deep. In an infant or child, compress to a depth of ___ to ___ of the chest depth.
4. What is the correct ratio of chest compressions to breaths?
 - a. 15 to 1
 - b. 15 to 2
 - c. 30 to 1
 - d. 30 to 2
5. If you are performing CPR on an adult victim when an AED is brought to the scene and is ready to use, what action should you take?
 - a. Use the AED as soon as set up
 - b. Continue CPR for at least 15 cycles before using the AED
 - c. Use the AED only if you can feel the victim's heart quivering in his or her chest
 - d. Use the AED only if the victim showed signs and symptoms of having a heart attack; otherwise, do not use it but continue CPR

Answers to Learning Checkpoint 2

1. c. Start CPR as soon as you determine the victim is unresponsive and not breathing normally (unless an AED is present and ready to be used).
2. In an adult or child, the correct position for chest compressions is on the lower half of the breastbone (sternum) midway between the nipples.
3. Chest compression depth for adults: 1½ to 2 inches. For an infant or child: 1/3 to ½ the depth of the chest.
4. d. 30 to 2 in all victims regardless of age
5. a. Use the AED as soon as it is set up and ready. The AED unit will check the heart rhythm and determine whether the victim needs a shock to restore regular rhythm or whether to give CPR.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case. Students should state the appropriate steps in this order:

1. After determining that he is not breathing normally, open his airway with the head tilt, chin lift.
2. Using a barrier device (visible in this photograph), give two rescue breaths, each over 1 second. (If the first does not go in, reposition the head before trying again.)
3. Expose the victim's chest, position your hands midway between the nipples, and start fast, hard compressions (at the rate of 100/minute).
4. After 30 compressions, give two rescue breaths. Then continue CPR cycles of 30 compressions and 2 breaths.

5. Continue CPR until the victim begins to move, an AED arrives at the scene and is ready to use, or professional responders take over.

Scenarios for Class Discussion

1. You are present at a waterfront when a victim is taken from the water. She is unresponsive. You check and find she is not breathing.
 - a. Describe what you do first.
 - b. You open her airway and give two breaths. You see her chest rise and fall with each breath. What do you do next?
2. You enter your office to find a secretary collapsed on the floor. She is unresponsive. You quickly check her and find she is not breathing. What is the first action you should take?

Answers to Scenarios

1.
 - a. With a nonbreathing victim, first give two rescue breaths.
 - b. Since your breaths go in, you know she is not choking. Make sure someone has called 9-1-1 and start CPR.
2. Your first action is to call 9-1-1, before starting CPR, because it is important to get help (and an AED) on the way.

Lesson 7

Basic Life Support 3: Choking Care

Learning Checkpoint 1

1. List at least 4 situations in which choking is a risk for in an adult.
2. Put a check mark next to food items that should not be given to a child under age 3.
 3.

___ Popcorn	___ Grapes
___ Jell-O	___ Corn kernels
___ Marshmallows	___ Soft bread slices
___ Spaghetti	___ Gum

Answers to Learning Checkpoint 1

1. Trying to swallow large pieces of food, eating too quickly, eating while engaged in other activities, eating under the influence of alcohol or drugs, eating with dentures
2. These items on the list should not be given a child under age 3:
 - Popcorn
 - Grapes
 - Marshmallows
 - Gum

Learning Checkpoint 2

1. For a responsive adult victim who is choking, you should:
 - a. Start CPR immediately
 - b. Alternate back blows and chest thrusts
 - c. Give abdominal thrusts
 - d. No first aid action is needed until the victim becomes unresponsive
2. True or False: A choking victim who is coughing forcefully is still able to breathe and may be able to cough out the foreign body.
3. True or False: A choking victim who is unable to breathe will soon become unresponsive.
4. For a responsive choking infant:
 - a. Support the head as you position the infant
 - b. Alternate back blows and chest thrusts
 - c. Check the infant's mouth for an expelled object
 - d. All of the above
5. Explain why CPR is given to a choking victim who becomes unresponsive.

Answers to Learning Checkpoint 2

1. c. Give abdominal thrusts to a choking adult *unless* he or she is coughing or able to speak.
2. True. A forcefully coughing victim is getting at least some air, and the coughing may dislodge the obstructing object.
3. True. Without air a victim will become unresponsive and the heart will stop; the victim then needs CPR.
4. d. All of the above.
5. The chest compressions of CPR may dislodge the obstructing object. Even if not, the chest compressions will circulate blood to vital organs.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case. Students should outline these steps in the correct order:

1. Ask the victim if he is choking. (Since he cannot speak, he nods "yes.") Tell the others at the table to call 9-1-1.
2. Ask if you can help. (He nods consent.)
3. Tell the victim to stand, and help him up. Stand behind him in the correct position and position your hands to give abdominal thrusts.
4. Give thrusts upward and inward into his abdomen until he expels the object (or becomes unresponsive).
5. If the victim does not expel the object and becomes unresponsive, lower him to the floor and start CPR. Each time the mouth is opened to provide a rescue breath, check the mouth for an object. If one is seen, remove it.

Scenario for Class Discussion

1. A friend is visiting you in your home. You have had a nice meal and are enjoying the cookies the friend brought, when the telephone rings—an important call you have to take. When you return to the kitchen about 5 minutes later, you find your friend collapsed in her chair, unresponsive.
 - a. Describe what you do first.
 - b. You position her on her back on the floor, open her airway, and look, listen, and feel for breathing. You detect no breaths. Now what do you do?
 - c. You try to give the first rescue breath but your air does not go in and her chest does not rise. Now what do you do?
 - d. After repositioning her head to open the airway and trying to give a second breath, you find your air still does not go in. Now what do you do?

- e. After the first cycle of 30 chest compressions you open her mouth to give a rescue breath, and when you look inside you see a chunk of food. What do you do?
- f. You remove the food and check for breathing. She is not breathing. You give two rescue breaths, and this time they go in and you see her chest rise. Now what should you do?

Answers to Scenario

- a. The first step always is to check for breathing. Unless it is obvious that she is breathing, you will probably need to lower her to the floor on her back and open the airway with the head tilt-chin lift in order to check for breathing.
- b. The next step is to give two rescue breaths.
- c. If the first does not go in, stop and reposition the head to try again to open the airway before giving the second breath.
- d. Start CPR beginning with chest compressions. Give CPR in the usual way, except each time you open the mouth to give a rescue breath, look inside for a foreign object.
- e. Remove the food with your fingers. Then check the victim for breathing.
- f. Continue CPR as usual for any victim who is not breathing.

Lesson 8

Basic Life Support 4: Automated External Defibrillator (AED)

Learning Checkpoint 1

- 1. True or False: An AED works by giving a shock to a heart that is fibrillating to restore it to a normal rhythm.
- 2. True or False: It is very risky to use an AED because the unit cannot tell whether the victim's heart is beating normally or not.
- 3. About what percentage of cardiac arrest victims are in fibrillation and require a shock?

Answers to Learning Checkpoint 1

- 1. True. The shock from the AED can restore a normal heart rhythm when the heart is fibrillating.
- 2. False. There is almost no risk in using an AED, because the unit will not indicate a shock unless it determines that the victim's heart is fibrillating; in this case the shock is appropriate and can restart a normal heartbeat.
- 3. About 50% of cardiac arrest victims are in fibrillation and require a shock to restore the heart to a normal rhythm.

Learning Checkpoint 2

- 1. Which statement is true about the pads (electrodes) of an AED?
 - a. The AED has two pads which must be correctly positioned
 - b. The AED has four pads which must be correctly positioned
 - c. The AED has two pads, but only one needs to be put on the victim's chest (the other is a spare)
 - d. The pads are used only if a heart rhythm is not detected when the machine is placed in the center of the victim's chest
- 2. If the AED unit advises you to give a shock, what do you do next?
 - a. Continue CPR while asking someone else to push the shock button
 - b. Place a wet towel over the victim's chest and push the shock button
 - c. Make sure everyone is clear of the victim and then push the shock button
 - d. Wait about a minute for the unit to confirm analysis of a shockable rhythm
- 3. When an AED is available, when is CPR given to an unresponsive victim who is not breathing?

Answers to Learning Checkpoint 2

- 1. a. The two pads of the AED must be correctly positioned on the victim's chest.

2. c. Give the shock when the unit indicates it, after first making sure no one is in contact with the victim.
3. CPR is given to unresponsive victims who are not breathing while the AED is being brought and set up and after the unit advises not to give a shock.

Learning Checkpoint 3

1. Name at least one situation in which a young child may experience sudden cardiac arrest and could benefit from use of a pediatric AED.
2. Describe where to put the AED pads if you see that a victim has an implanted pacemaker or defibrillator.
3. What should you do with the AED pads if the victim has a medication patch on his or her chest?

Answers to Learning Checkpoint 3

1. A situation such as drowning or poisoning may cause cardiac arrest in a child, in which case the AED may restore a normal rhythm.
2. Do not put the pad on or very near to an implanted pacemaker or defibrillator; place it several inches away.
3. Remove any medication patches before applying the AED pads.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to continue taking in this situation.

1. If possible, have the other person set up the AED while you continue CPR so that there is minimal time without chest compressions. Tell the other person to put it by the victim's left shoulder, open and turn it on, and have everything ready to use.
2. Stop CPR and position the pads on the victim's chest as indicated on the pad diagrams.
3. Stand clear while the AED does the rhythm analysis.
4. Follow the prompts from the AED to administer a shock or continue CPR.
5. If the victim recovers, put him in the recovery position (with pads remaining in place) and monitor his breathing.

Scenarios for Class Discussion

1. A co-worker who had been feeling ill suddenly clutches at his chest and then collapses. You check and find he is not breathing. A co-worker calls 9-1-1 and

runs to get a nearby AED while you start CPR. When the co-worker returns with the AED, what should you do first?

2. An AED unit is present in your office suite, just down the hall from your office. One evening you are driving home from your 6-year-old son's soccer game when you remember you need to get something from your office. Your son goes in with you. He has been alone in your office for only a couple minutes, but when you walk back in you find him unresponsive on the floor. You check and find he is not breathing.
 - a. What is your first action?
 - b. You open his airway, give him two breaths (which go in, and you watch his chest rise and fall), and start CPR with chest compressions. How long should you continue CPR?
 - c. After 2 minutes he is still motionless and not breathing, and you call 9-1-1 and run for the AED. You set the unit for pediatric use, apply the pads, and let the unit analyze his rhythm. It advises giving a shock, and you push the shock button. Now what should you do?

Answers to Scenarios

1. Stop CPR and use the AED immediately as soon as it is available, turned on, and positioned beside the victim.
2.
 - a. Since you did not witness the collapse, you should not assume a sudden cardiac arrest in a child. He may have choked on something he found in the office. Therefore your first action should not be to get and use the AED. Instead, open his airway, give two breaths, and start CPR.
 - b. Give five cycles of CPR (about 2 minutes). If the victim is not moving, then run for the AED (and call 9-1-1).
 - c. After the shock, immediately give CPR for 5 cycles (about 2 minutes). Then the AED will analyze again and advise another shock if needed, or continuing CPR (with the pads left in place).

Lesson 9

Controlling Bleeding

Learning Checkpoint 1

1. True or False: Arterial bleeding is the most serious because blood loss can be very rapid.
2. True or False: The first thing to do with any bleeding wound is wash it and apply antibiotic ointment.
3. Describe the skin characteristics of a victim who has been bleeding severely.
4. If you do not have medical exam gloves with you, what other materials or objects can be used as a barrier between your hand and the wound when applying direct pressure?

Answers to Learning Checkpoint 1

1. True. The body can quickly lose much blood from arterial bleeding.
2. False. The first thing to do always is stop the bleeding first.
3. A victim who has been bleeding severely may show the signs of shock, including cool, clammy skin.
4. Many different materials can form a barrier between you and the victim's blood, including bulky clothing, a plastic bag, etc. (This topic is more fully discussed in Chapter 2.)

Learning Checkpoint 2

1. True or False: Internal bleeding is seldom life-threatening because there is no loss of blood from the body.
2. Put a check mark next to the signs and symptoms of internal bleeding.

<input type="checkbox"/>	cool, clammy skin	<input type="checkbox"/>	confusion or light-headedness
<input type="checkbox"/>	vomiting or coughing up blood	<input type="checkbox"/>	blood in urine
<input type="checkbox"/>	tender, swollen, or hard abdomen	<input type="checkbox"/>	bruise
3. First aid for serious internal bleeding includes:
 - a. Calling 9-1-1
 - b. Positioning victim lying down with legs raised
 - c. Keeping the victim from becoming chilled or overheated
 - d. All of the above

Answers to Learning Checkpoint 2

1. False. Internal bleeding can be life threatening because significant blood may be lost from internal organs or blood vessels. The blood is lost from the circulation

- even if it remains within a body cavity—the fact that it is still inside the body does not mean it reaches vital organs through the circulation.
2. All these are signs or symptoms of internal bleeding. Significant blood loss may cause shock, resulting in cool, clammy skin and confusion or light-headedness.
3. d.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. First, put on gloves to prevent direct contact with the victim's blood.
2. Place a sterile dressing on the wound and apply direct pressure with your hand on the dressing.
3. If blood soaks through the first dressing, put another dressing or cloth pad on top of the first and keep applying pressure.
4. Wrap a roller bandage around the hand to keep pressure on the wound.
5. Tell the victim he needs to see a health provider because the wound will likely require stitches and may need cleaning. He may also need a tetanus vaccine booster if he has not had one in recent years. (Wound care is taught in Chapter 11.)
6. Carefully clean and disinfect the area exposed to blood. Correctly remove the contaminated gloves to prevent exposure.

Scenarios for Class Discussion

1. A co-worker who was repairing a piece of equipment suddenly yells and grabs at his arm. You see blood flowing between his fingers. You check him and see the blood is spurting from a severed artery.
 - a. What do you do to try to stop the bleeding?
 - b. Even with your pressure on the wound, the bleeding continues through the dressing. What do you do next?
2. You are riding the bus home from work in the evening. As the bus stops where you will get off, an inebriated passenger in front of you staggers and trips on the last step and lands on the sidewalk. Not seeing what happened, the bus driver pulls away. The man rolls over, and you see that his shirt over his shoulder is rapidly becoming soaked with blood—he apparently landed on a piece of broken glass on the sidewalk. You have neither a cell phone nor first aid kit with you. What do you do?
3. You respond to a scene where a construction worker is lying unresponsive on his back. Another worker tells you that a few minutes ago he was struck in the abdomen by a concrete block that tumbled from on top of a wall. This other

person unbuttoned the man's shirt to see if he was bleeding, and although his skin is abraded and bruised, there is no active bleeding.

- a. What are the first actions you should take?
- b. You carefully check his abdomen. It is hard and swollen, and his skin is cool and moist. Now what should you do?

Answers to Scenarios

1.
 - a. (Have someone call for help, and get the victim's consent to help.) First, put on medical exam gloves or use another barrier to protect yourself from contact with the blood. Then place a sterile dressing on the wound, and apply direct pressure with your hand.
 - b. Do not remove the old dressing but put another dressing or cloth pad on top of it and keep applying pressure. Wrap a roller bandage around the limb to hold the dressings in place and apply pressure, being careful not to cut off circulation to the limb.
2. First, yell for someone to call 9-1-1. If he is bleeding that quickly, the loss of blood may become life threatening, and in any case he will need medical attention.

Since you do not have a first aid kit, it is unlikely you have gloves with you. Remind students that they can improvise other barriers to prevent exposure to the victim's blood, such as putting their hand inside a plastic bag or using the victim's own hand. (Encourage participants to think creatively about possible options.)

Then control the bleeding with direct pressure on the wound. While waiting for EMS personnel to arrive, position the victim to prevent shock if bleeding is severe.
3.
 - a. First, make sure that someone has called 9-1-1 to get additional EMS resources on the way.
 - b. Because of the risk of spinal or other serious injury, you should not move this victim into the shock position. Take other actions for shock:
 - Keep him warm by covering him with a blanket or coats.
 - Ensure there is no external bleeding that needs to be controlled.
 - Monitor his breathing.
 - Maintain an open airway and be prepared for vomiting.

Lesson 10

Shock

Learning Checkpoint 1

1. True or False: Because a shock victim is thirsty and may be dehydrated, offer clear fluids to drink.
2. True or False: A spinal injury can cause shock.
3. Which of these actions should you take *first* for a victim in shock because of external bleeding?
 - a. Stop the bleeding
 - b. Raise the legs
 - c. Loosen tight clothing
 - d. Cover the victim with a blanket
4. A shock victim is likely to have which signs and symptoms?
 - a. Vomiting, diarrhea, red blotchy face
 - b. Nausea, thirst, clammy skin
 - c. Incontinence, hives, swollen legs
 - d. Headache, painful abdomen, coughing
5. What is the most important action to take for all shock victims?

Answers to Learning Checkpoint 1

1. False. Never give fluids to a shock victim. The victim is likely to vomit.
2. True. A spinal injury can cause shock if it causes nervous system damage.
3. a. Stop the bleeding. Severe bleeding is life-threatening and must be managed before you do anything else.
4. b. Nausea, thirst, clammy skin. These are common signs and symptoms of shock.
5. Calling 9-1-1 is the most important action (after treating any life-threatening injuries) because the victim may need advanced medical care very soon to survive.

Learning Checkpoint 2

1. True or False: Ask a victim having an anaphylactic reaction about any allergies and medication for allergies.
2. True or False: A bee sting can cause a severe allergic reaction.
3. The major risk for a victim in anaphylaxis is:
 - a. Swelling around the eyes
 - b. Heart attack
 - c. Internal bleeding
 - d. Breathing problems
4. How should a victim in anaphylaxis be positioned if having trouble breathing?

Answers to Learning Checkpoint 2

1. True. A victim who has experienced an allergic reaction in the past may have an emergency kit you can help them use. (Also tell the arriving EMS crew about the allergy.)
2. True. Allergic reactions to bee and wasp stings are common—and can be severe.
3. d. Breathing problems. These are caused by swelling of the airway and are most serious because they can be life threatening.
4. Help the victim into whatever position is easiest for breathing, which is often sitting partway up.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. Talk first with students about the situation. Since the affected girl is not a member of the family, the mother may not know about her food allergy. Even if the girl herself knows she is allergic to a food such as peanuts, she might not be thinking that one of the foods at the table could include a small amount of peanuts as an ingredient. Many such cases of anaphylaxis happen in such circumstances.
2. Note that although you suspect a food allergy, because she is having trouble breathing you should make sure that she is not choking. Either way, quick action is needed. First ask her if she is choking. (If she is having an allergic reaction, she may or may not be able to speak, but if she knows it is an allergic reaction, she is likely to shake her head no to indicate not choking on food. If she is, ask permission and give her abdominal thrusts for choking.) Then ask if she is allergic to anything, like nuts. If she nods yes, ask if she carries an emergency kit. At the same time, tell the woman or someone else at the scene to call 9-1-1 immediately.
3. If she has emergency medication, help her use it and then stay with her and monitor her breathing until EMS personnel arrive. Help her relax in a position for easiest breathing, and offer reassurance.
4. If she is having a serious allergic reaction and does not have emergency medication, stay with her and be prepared to give basic life support if needed. If she becomes unresponsive but is still breathing, put her in the recovery position and continue to monitor her breathing until EMS personnel arrive.

Scenarios for Class Discussion

1. The rear bumper of a truck backing up to the loading dock strikes a man's leg above the knee, knocking him down. He is yelling with pain, and his leg looks twisted and distorted above the knee. By the time you reach him he has become quiet and seems confused about what happened. He is sweating but his skin is cool and clammy. What should you do?

2. You are finishing lunch in a restaurant with a co-worker when she says she doesn't feel well. She is wheezing and short of breath, and holding her throat. Her eyes look puffy. You ask her if she has any allergies and she says she is allergic to peanuts, but she didn't think there were any nuts in the sauce on her food. Her wheezing becomes worse, and she is very agitated. What do you do?
3. While working outdoors, your co-worker is stung by a bee. He says he is allergic to bees. Almost immediately he starts having difficulty breathing. What is the first thing you should ask him?

Answers to Scenarios

1.
 - a. First check for life-threatening injuries and call 9-1-1.
 - b. Have victim lie down. Normally you would raise his legs 8–12 inches, but do not move the injured leg in this case (topic is discussed more in Chapter 8).
 - c. Loosen any tight clothing.
 - d. Help maintain his body temperature (unless it is very warm, cover him with coats or blankets).
 - e. Stay with him and offer reassurance and comfort.
2. Since she may be experiencing anaphylaxis, which can be very serious because it may threaten her airway, call 9-1-1 immediately. Ask if she has an emergency epinephrine kit. If so, help her use it immediately. Be prepared to give basic life support (BLS) as needed. Help her rest sitting up in the position of easiest breathing. Stay with her and offer reassurance and comfort.
3. Ask if he has an emergency epinephrine kit. If so, help him use it immediately. If not, call 9-1-1 and give first aid for anaphylaxis.

Lesson 11

Wounds and Soft Tissue Injuries

Learning Checkpoint 1

- Check off the actions below to include in wound care:
 - Irrigate minor wounds with running water
 - Pour rubbing alcohol on any wound
 - Wash major wounds to help stop the bleeding
 - Use tweezers to remove large dirt particles from a minor wound
 - Cover any wound with a sterile dressing and bandage
 - Let a scab form before washing a minor wound
 - See a healthcare provider for a deep or puncture wound
 - Blow on a minor wound to cool the area and relieve pain
 - If you are changing a wound dressing a day after the injury and the dressing sticks to the wound, what should you do?
 - True or False: Puncture wounds have little risk for infection.
 - True or False: You don't need to bother putting on gloves to dress a minor wound if you know the victim well.
 - For what type(s) of wound is an antibiotic ointment appropriate?
-
- Check off which signs and symptoms may indicate a wound is infected:
 - Headache
 - Warmth in the area
 - Red, swollen area
 - Fever
 - Cool, clammy skin
 - A scab forms that looks dark brown
 - Nausea and vomiting
 - Pus drains from the wound
 - Which of these victims need to seek medical attention? (Check all that apply.)
 - Jose has a deep laceration from a piece of equipment, but you managed to stop the bleeding in 15 minutes.
 - Rebecca had lunch in a nearby park and was bitten by a squirrel she was feeding, but the bleeding stopped almost immediately.
 - Carl scraped his knee when he fell off his bicycle on the way to work, but the abrasion washed out clean and you have applied an antibiotic ointment.
 - Kim got a bad gash on her cheek when a bottle broke in the supply room, but she had already stopped the bleeding by the time you saw her.
 - True or False: To control bleeding, make a pressure bandage as tight as you can get it.
 - You have put a roller bandage around a victim's arm to control bleeding from a

- laceration. A few minutes later she says her fingers are tingling. You feel her hand, and her fingers are cold. What should you do?
- When applying a bandage over a dressing, the bandage should:
 - Hold down only the corners of the dressing so the wound can breathe
 - Be soaked first in cold water
 - Cover the entire dressing
 - Be loose enough so it can be slid to one side to change the dressing

Answers to Learning Checkpoint 1

- Include these actions in wound care:
 - Irrigate minor wounds with running water.
 - Use tweezers to remove large dirt particles from a minor wound.
 - Cover any wounds with a sterile dressing and bandage.
 - See a healthcare provider if the victim's tetanus vaccination is not current.
- Soak a dressing in water if it sticks to the wound.
- False. Puncture wounds have a greater risk of infection because germs may be trapped inside.
- False. With *all* victims, assume there may be pathogens in the blood; follow standard precautions.
- Use an antibiotic ointment only on abrasions.
- Signs of wound infection include a red swollen area, warmth in the area, fever, and pus draining from the wound.
- These victims need to seek medical attention:
 - Jose, because his wound is deep (regardless of the fact that you stopped the bleeding).
 - Rebecca, because any animal bite should be seen by a healthcare provider.
 - Kim, because significant face wounds should be seen by a healthcare provider.
- False. The bandage should be tight enough to put pressure on the wound to control bleeding, but if it is too tight it may cut off circulation.
- In this situation the bandage is too tight and is cutting off her circulation. Unwrap the bandage and reapply it less tightly.
- c. The bandage should cover the entire dressing to secure it in place. It should be dry and should not be able to be slid to one side because a bandage that loose will not adequately protect the wound.

Learning Checkpoint 2

- Name one circumstance in which you might want to promote bleeding.
- True or False: The first thing to do when you see an object impaled in a wound is to pull it out so that you can put direct pressure on the wound to stop the bleeding.
- True or False: An amputated part should be kept cold but not put in direct contact with ice.
- With an eye injury, why would you cover the *uninjured* eye too?
- Describe three ways you can try to remove a small particle from the eye.

6. True or False: For bleeding from within the ear, roll a piece of gauze into a plug and try to seal the ear with it.
7. A nosebleed victim should first try to stop the bleeding by pinching the nostrils closed for ____ minutes. During this time, list two or three things the victim should *not do*.
8. True or False: A knocked-out tooth can be reimplanted if it is kept in milk and the victim reaches a dentist soon.
9. True or False: Repeatedly rinsing the mouth with cool water is the best way to stop bleeding in the mouth.

Answers to Learning Checkpoint 2

1. Promote some bleeding of a shallow puncture wound to “wash out” any germs that may be deep inside.
2. False. Leave an impaled object in a wound because removing it could worsen the injury.
3. True. Keep an amputated part cold to help preserve it, but do not put it in direct contact with ice (which could freeze tissue).
4. With an eye injury you should cover the uninjured eye also, because movement of the uninjured eye will also cause the injured eye to move, which could worsen the injury.
5. Three ways to remove a small particle from the eye are:
Pull the upper eyelid out and down over the lower eyelid.
Flush the eye with water.
Try to brush it out with a dampened cotton-tip swab or sterile dressing.
6. False. Let blood or fluid drain out.
7. 10 minutes. During this time, do not tilt the victim’s head backward, do not have the victim lie down, and do not let the victim speak, swallow, cough, or sniff.
8. True. A dentist can usually reimplant a knocked-out tooth if it is kept in milk and the victim reaches the dentist soon.
9. False. Rinsing the mouth with cool water will not stop bleeding but will keep the blood from clotting in the wound.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. Gently wash the wound with soap and water and irrigate it with running water for at least 5 minutes.
2. Use sterile gauze or tweezers to remove any large particles you see in the wound.
3. Dry the area. Apply an antibiotic only to a shallow wound or abrasion—but not to a deep cut.
4. Cover the wound with a sterile dressing and bandage.
5. Seek medical attention if the wound may need stitches or the victim does not have a current tetanus vaccination.

Scenarios for Class Discussion

1. A co-worker’s young son, playing outside, falls and gets a nasty scrape on his palm. The bleeding soon stops by itself, but the wound is full of dirt. Describe the steps to take with this wound.
2. You are using an ice pick to chip away ice around a frozen door when you slip and the tip of the ice pick penetrates your palm. The wound does not seem too deep, and it is not bleeding. How do you care for this wound?
3. A carpenter at your work site is using a nail gun to install new siding. As he is putting the tool down, it fires and a nail is shot into the calf muscle of his leg. You cut open his pants leg and see the head of the nail sticking out about an inch, with bleeding around the nail. How do you care for this wound?
4. A co-worker is taking a box from a high shelf in the supply room. It slips from his fingers and hits him in the eye. He is in pain but there is no bleeding or fluid coming from the eye. Describe the first aid to give.
5. Looking at a newspaper while you walk, you are going out the open door of your office building behind another person. That person does not notice you and lets the door swing closed—and it strikes you in the face. Immediately blood is splattering out your nose and dripping onto your newspaper.
 - a. What should you do?
 - b. After 10 minutes, you slowly release your pinching of the nostrils, and the bleeding seems to have stopped. But when you stand up and start walking, you feel blood again dripping out of your nose. Now what do you do?
 - c. After another 10 minutes, you again carefully release the pressure, but bleeding continues. What should you do?

Answers to Scenarios

1.
 - a. Gently wash the wound with soap and water to remove dirt.
 - b. Use tweezers to remove any large particles.
 - c. Pat the area dry. With an abrasion you can apply an antibiotic ointment.
 - d. Cover the wound with a sterile dressing and bandage (or adhesive bandage with nonstick pad).
2. A puncture wound has a greater risk of infection because germs may not be flushed out. Follow these steps:
 - a. Remove any small objects or dirt.
 - b. Gently press on the wound’s edges to promote bleeding to help flush it out.
 - c. Do not put any medication inside or over the puncture wound.
 - d. Wash the wound well in running water directed at the puncture site.
 - e. Dress the wound and seek medical attention.
3. Do not try to remove the nail: leave it in place and dress the wound around it:

- a. Control bleeding by applying direct pressure at the sides of the nail.
 - b. Dress the wound around the nail.
 - c. Pad the nail in place with large dressings or folded cloths, supporting the nail while bandaging it in place.
 - d. Seek medical attention.
4.
 - a. Put a cold pack over the eye for 15 minutes to ease pain and reduce swelling, but do not put pressure on eye. If the victim is wearing a contact lens, do not remove it.
 - b. Keep the victim still and cover the uninjured eye. Movement of the uninjured eye causes movement of the injured one.
 - c. Seek medical attention if pain persists or vision is affected.
 5.
 - a. First, sit down. Pinch your nostrils together just below the bridge of the nose and hold it for 10 minutes. Breathe through your mouth and do not speak, swallow, cough, or sniff while waiting for the blood to clot.
 - b. Sit down and repeat the process for another 10 minutes, allowing the blood to clot undisturbed.
 - c. After two attempts to control a nosebleed, you should now seek medical attention because the injury is apparently serious. For such an injury you may have someone drive you to a hospital emergency department or other healthcare provider; you should not try to drive yourself because you should maintain pressure on your nostrils and keep your head tilted forward so that blood does not run back down the nose into your throat.

Lesson 12

Burns

Learning Checkpoint 1

1. List at least three of the most common activities during which fires occur.
2. Describe at least three things you can do to help prevent fires from occurring in the kitchen.
3. True or False: If a fire breaks out in a building where you and others are present, the first thing you should do is call 9-1-1.
4. Name four factors that affect how serious a burn may be.

Answers to Learning Checkpoint 1

1. Following are the most common causes of fires leading to injury or death (list any three):
 - Smoking
 - Heating
 - Cooking
 - Playing with fire
 - Electrical wiring
 - Open flames
 - Appliances or other equipment
2. Specific actions to prevent fires in the kitchen:
 - Keep a fire extinguisher in the kitchen and know how to use it.
 - Tie back long hair or loose clothing when cooking or working around flames.
 - If food catches on fire in a microwave or toaster oven, leave the food there and turn the appliance off; keep other objects away until the flames go out.
 - Keep electrical cords away from counter edges where children may pull on them.
 In addition, other general measures such as these can help prevent fires in the kitchen or elsewhere in the home or workplace:
 - Make sure enough smoke detectors are installed and have good batteries (change batteries twice a year when you change clocks for daylight savings time).
 - Do not allow smoking, or ensure it is done safely and materials safely extinguished. Never allow smoking in bed.
 - Keep curtains and other flammable objects away from fireplaces and stoves; use fireplace screens.
 - Have chimneys regularly inspected and cleaned to prevent chimney fires.
 - Never store gasoline or other highly flammable liquids indoors.
 - Prevent fires caused by electricity:
 - Keep power cords safely out of the way and away from children.
 - Check appliance cords for damaged areas or fraying.
 - Do not overload electrical outlets or use multiple extension cords.
 - Unplug appliances and extension cords when not in use.
 - Keep children from playing with fire.

3. False. The first thing to do is make sure everyone is evacuated from the building.
4. Four factors that affect how serious a burn may be:
 - The type of burn (first-, second-, or third-degree)
 - How extensive the burn is (how much body area)
 - The specific body area burned
 - Special circumstances such as the victim's age and health status

Learning Checkpoint 2

1. True or False: With a victim with a second-degree burn, you should break skin blisters and cover the area with a burn ointment to promote faster healing.
2. With a victim with a third-degree burn, you should cool only a _____ area with water because of the risk of shock or hypothermia.
3. As you are leaving work, you see a man working on his car in the parking lot. He suddenly screams and backs away, his clothing on fire. What do you do? List in correct order the first four actions you should take.

Answers to Learning Checkpoint 2

1. False. Never break blisters on a burn, which could cause infection.
2. Small (less than 20% of the body).
3. First, stop the fire (have him stop, drop, and roll to put out the flames, or cover him with a coat or blanket).
Cool the area with water immediately to stop the burning (but not more than 20% of body).
Remove any tight clothing or jewelry.
Call 9-1-1.
Then treat for shock and cover the burned area with a dressing.

Learning Checkpoint 3

1. A co-worker has splashed an unknown liquid in her eye and is holding her hand over the eye. What should you do first?
 - a. Have her keep holding the eye closed so that her tears will wash out the chemical
 - b. Call 9-1-1 and wait for healthcare personnel to take care of her eye
 - c. Immediately flush the eye with running water
 - d. Mix baking soda with water and pour it into her eye
2. Describe the first action to take if a victim has a dry chemical on the skin.
3. True or False: If a person who was in a smoky area near a fire does not have any signs and symptoms within an hour, that person does not need medical care.

Answers to Learning Checkpoint 3

1. c. Immediately flush the eye with running water to stop the burning.

2. First, brush the chemical off the skin to stop the burning. (Wear gloves or otherwise protect yourself.)
3. False. The signs and symptoms of an injury caused by smoke inhalation may not become manifest for up to 48 hours. Any victim of smoke inhalation should receive medical attention.

Learning Checkpoint 4

1. True or False: The first thing to do for an unresponsive victim in contact with an electrical wire is pour water over the area of contact.
2. What is the safest way to stop the electricity when someone is shocked by an electrical appliance? How should you *not* try to stop it?
3. Driving home from work, you are stopped behind a car that has struck a utility pole. You get out to help the driver and see a power line dangling from the pole in contact with the roof of the car. Your first action should be to:
 - a. Use your cell phone to call 9-1-1
 - b. Look for a stick or piece of wood to push the wire away from the car
 - c. Try to pull the victim out the car window
 - d. Give any needed first aid by leaning in the car window

Answers to Learning Checkpoint 4

1. False. The first thing to do is unplug or turn off the electrical power.
2. Unplug the appliance or shut off the circuit breaker. Do not try to pull the victim away from the appliance or the appliance from the victim, because you too could be shocked.
3. a. Call 9-1-1 first. You cannot safely reach the victim or move the high-voltage wires yourself—you could make the situation worse.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case of a steam burn.

1. First stop the burning and cool the burned area – help her hold her forearm under running water in the kitchen sink.
2. Assess the burn. In this situation it is likely only a first-degree burn without the formation of blisters. The skin is red and slightly swollen. Continue to run cold water on it for at least 10 minutes or until the pain diminishes.
3. Remove her watch and ring from that hand in case the area swells.
4. Aloe vera gel can be used on the skin for comfort.
5. Protect the burned area from friction or pressure with a gauze dressing bandaged in place. In this situation it is probably not necessary to seek medical attention because it is a first-degree burn not covering a large area.

Scenarios for Class Discussion

1. A welder just completed welding a broken piece of wrought iron fence. Before anyone can stop her, the daughter of an employee, playing in the area, runs by, trips, and falls against the hot iron. The skin on her palm is instantly charred black. Describe the immediate actions you should take.
2. In the employee break room, someone emptied an ashtray into a trashcan, which then caught on fire and ignited the window curtains nearby. After evacuating everyone, you put the fire out with a fire extinguisher. Your throat feels a little raw, but otherwise you feel fine. The next morning, however, you are hoarse and coughing. Is this just “normal,” or do you need medical attention?
3. A co-worker ignores a “Wet Floor” sign and while walking fast down a wet hallway slips and falls. Without thinking, he rubs his bruised face. Immediately his eye hurts with a burning sensation, and you see his hand is wet from the liquid that was on the floor. How should you care for him?
4. You are helping a friend install an electric sump pump in his wet basement. When he thinks everything is ready, he plugs it in—and you hear a hiss as he jolts and falls to the floor unresponsive in a puddle of water. You are standing in the dry part of the basement. What do you do?

Answers to Scenarios

1. Cool the area immediately, using water if possible (this is safe for a small third-degree burn). Have someone call 9-1-1, and remove clothing and jewelry from the burn area. If the burn is severe, there may be risk of shock: have her lie down, elevate her legs, and maintain her body temperature (unless it is very warm, cover her with a coat or blanket). Carefully cover the burn with a dressing but do not apply a cream or ointment. Watch her breathing and be ready to give basic life support (BLS) if needed.
2. Since the signs and symptoms of smoke inhalation may not become obvious for up to 48 hours after exposure, you cannot know whether you have a serious medical condition from inhaling smoke when fighting the fire. Therefore you should seek medical attention.
3. In this situation you can assume he got some of the floor cleaner chemical in his eye. Give this first aid:
 - a. Flush the eye immediately with running water and continue for 20 minutes. Have him remove a contact lens.
 - b. Tilt his head so that water runs away from his face and not into the other eye.
 - c. After flushing, have him hold a dressing over the eye until he sees a healthcare provider.
4. a. Do not touch him until you know the area is safe and the electricity is off. In this situation, look for a circuit breaker box and turn off the power.

- b. Since he is an unresponsive victim, check his breathing and give BLS as needed.
- c. Call 9-1-1.
- d. Care for the electrical burn (stop the burning, cool the area, remove clothing and jewelry, cover burn).
- d. Keep him in the recovery position and monitor his breathing until help arrives.

Lesson 13

Head and Spinal Injuries

Learning Checkpoint 1

- List two or three signs of a possible skull fracture. What is one thing you should *not* do to stop bleeding from the head if you suspect a skull fracture?
- True or False: You can easily tell a mild concussion from a serious brain injury by the signs and symptoms.
- Check off the possible signs and symptoms of a brain injury:
 Headache Fingernail beds look blue
 Rapid blinking Dizziness or confusion
 Memory loss Nausea and vomiting
- The one sure way to know whether the victim has a spinal injury is:
 - Pain in the neck
 - Headache
 - Unresponsiveness
 - None of the above
- How long after a blow to the head might signs and symptoms of a more serious injury appear?

Answers to Learning Checkpoint 1

- Signs of a possible skull fracture include a deformed area of skull, a depressed area felt in your examination, blood or fluid loss from the ears or nose, and an object impaled in the skull. Do not apply direct pressure to stop bleeding.
- False: Symptoms of brain injuries including concussion, bleeding, or swelling can be variable and may be confusing. Call 9-1-1 with any suspected brain injury.
- Headache, memory loss, dizziness or confusion, and nausea and vomiting.
- d. None of the above. There is no one assessment that can always determine the presence of a spinal injury. Do not assume a victim without specific symptoms does not have a possible spinal injury.
- Signs and symptoms of a serious brain injury may occur as late as 48 hours after a blow to the head.

Learning Checkpoint 2

- True or False: Suspect a spinal injury in any victim with a serious head injury.
- For an unresponsive victim you suspect may have a spinal injury:
 - Immediately place the victim on his or her back in case you have to give CPR
 - Check the victim's breathing in the position in which you found the victim

- Turn the head to one side in case the victim vomits
 - Move all body parts to see if anything feels broken
- A spinal injury should be suspected in which of these situations? (Check all that apply.)
 The victim fell from a roof 20 feet high
 A victim with diabetes passes out at lunch
 The victim was in a car that hit a telephone pole
 A piece of heavy equipment fell from a shelf on the victim's head
 You find a victim slumped over in a desk chair
 - Which of these are signs and symptoms of a spinal injury? (Check all that apply.)
 Victim cannot stop coughing Victim's face is bright red
 Victim's hands are tingling Unresponsive victim has a fever
 Victim has breathing problem Victim's neck seems oddly turned
 - When do you call 9-1-1 for a victim with a potential spinal injury?
 - Call for all victims with potential spinal injury
 - Call only if the victim is unresponsive
 - Call for a responsive victim only if feeling is lost on one side of the victim
 - Call after waiting 10 minutes to see if an unresponsive victim awakes
 - In what position do you stabilize the head of a victim with a suspected spinal injury?
 - Roll a victim with a spinal injury onto his or her side only if the victim _____.
 - In the company parking lot you see a car skid on an icy patch and smash into another car. The driver is still behind the wheel and looks dazed. Her forehead is bleeding. You ask her how she feels and she does not answer but just stares ahead. What should you do?

Answers to Learning Checkpoint 2

- True. Suspect a spinal injury in a victim with a head injury because head trauma may also injure the spine.
- b. Check for breathing without moving the victim, if you suspect a spinal injury. Move the victim only if necessary.
- Always suspect a spinal injury in these situations: fall from a roof, motor vehicle crash, and a blow to the head.
- Signs and symptoms of a spinal injury include tingling in the hands, breathing problems, and a twisted neck.
 - Call 9-1-1 for *all* victims who may have a spinal injury.
- Stabilize the head of a victim with a suspected spinal injury in the position in which you find the victim, because movement could worsen the injury.
- Vomits. The victim could choke on the vomit and therefore must be rolled onto his side, while still supported at the head. Otherwise there is no reason to move the victim and risk further injury.
- Stabilize the victim's head by holding it still with the victim staying in the driver's seat. Call for someone to call for 9-1-1. Monitor the victim's ABCs.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. Because of the possibility of a spinal injury, do not move the girl unless absolutely necessary.
2. Have someone call 9-1-1 immediately.
3. Because she is unresponsive, do not try to assess the injury. Check for breathing in the position in which you find her. If she is breathing, support her head in the position found while waiting for help to arrive.
4. If she is not breathing or if you must move her to open the airway and check for breathing, ask others to help you use the log roll technique to position her on her back while supporting her head in line with the body. Then open her airway and check for breathing. If she is not breathing, provide CPR. If she is breathing, maintain the open airway and monitor her breathing while manually maintaining inline stabilization, while waiting for help to arrive.

back and neck aligned during the move. (Other care includes calling 9-1-1 and monitoring his breathing.)

Scenarios for Class Discussion

1. A co-worker slips on ice in the parking lot, smashing his head against the side of a car. You rush over and ask him how he feels, and he says he's dizzy. He seems disoriented and is staggering, and then he suddenly vomits. What should you do?
2. While skiing, you come across another skier who has fallen at the edge of the trail, apparently after having hit a tree. He is lying in the snow on his back, unresponsive. Several people have gathered around. His skis have been removed. From the bruise on his forehead, you think that he hit his head against the tree. You check and find that he is breathing. Suddenly he vomits. Describe what you should do (and how to do it safely).

Answers to Scenarios

1. The circumstances of the injury along with his signs and symptoms suggest a possible brain injury. Give this first aid:
 - a. Have him lie down.
 - b. Keep him still and protect from becoming chilled. Put coats or blankets under and over him.
 - c. Call 9-1-1 and monitor his condition until the help arrives.
 - d. If he becomes unresponsive, put him in the recovery position because of the risk of vomiting. If you think there is a chance of a spinal injury, support his head and neck at all times.
2. The situation suggests he may have a spinal and brain injury. Since he is vomiting, he must be turned on his side. With the help of two or three other people, carefully roll him on his side while supporting his head and keeping his

Lesson 14

Chest, Abdominal, and Pelvic Injuries

Learning Checkpoint 1

1. True or False: Broken ribs are treated by taping the entire rib cage tightly.
2. Immobilize the arm of a victim with a rib fracture to:
 - a. Prevent movement
 - b. Ease pain
 - c. Help immobilize that side of the chest
 - d. All of the above
3. What should you do with a screwdriver you see embedded in the chest of an unresponsive friend after an explosion in his garage?
4. A gunshot victim has a small bleeding hole in the right side of his chest. You open his shirt to treat the bleeding and see air bubbles forming in the hole as air escapes. How do you dress this wound?

Answers to Learning Checkpoint 1

1. False. Loosely bandage a pillow or other support over the ribs. A tight bandage could cause further injury or breathing problems.
2. d. All of the above: Preventing movement of the arm helps prevent movement of that side of the chest. Preventing movement will also ease pain. A sling and binder may be used to immobilize the arm.
3. Do not remove the impaled screwdriver, which could worsen the injury. Instead, use bulky dressings to stabilize it, and bandage around it. Then call 9-1-1.
4. Treat a sucking chest wound by covering the wound dressing with a piece of plastic taped on three sides; this prevents air from being sucked in but allows air to escape. Then keep the victim lying down and call 9-1-1.

Learning Checkpoint 2

1. After a sports injury you find an unresponsive victim on the ground. Which of the following are signs and symptoms he may have a closed abdominal injury? (Check all that apply.)

<input type="checkbox"/> Bruises below the rib cage	<input type="checkbox"/> Blotchy skin around the eyes
<input type="checkbox"/> Abrasions on the chest	<input type="checkbox"/> Swollen abdomen
<input type="checkbox"/> Skin feels hot all over	<input type="checkbox"/> Tight skin around the neck
2. Describe the best position to put a victim in with either an open or closed abdominal wound.
3. True or False: To treat a victim for shock, help maintain normal body temperature.
4. If the victim has an organ protruding from an open abdominal wound, what should you do?

- a. Push the organ back into the abdomen
 - b. Spray clean water over the organ to keep it moist
 - c. Leave the wound exposed to the air
 - d. Cover the wound with a nonadherent dressing and plastic wrap
5. In what circumstances do you call 9-1-1 for a victim with an open or closed abdominal wound?

Answers to Learning Checkpoint 2

1. The signs and symptoms of a closed abdominal injury include bruising and a swollen abdomen.
2. A victim with an open or closed abdominal wound should lie on his back with knees slightly bent if this eases the pain.
3. True. Keep a victim in shock from becoming cold. If necessary, cover him with a coat or blanket, and place something between him and the cold ground.
4. d. Cover organs protruding from a wound with a nonadherent dressing and plastic wrap to keep the organs from drying out.
5. Call 9-1-1 for *any* victim with an open or closed abdominal wound.

Answers to Learning Checkpoint 3

1. Movement. Movement of a fractured pelvis could increase the bleeding and worsen the injury.
2. True. Pelvic bones themselves may bleed heavily, or internal organs may be damaged and bleed profusely.
3. True. Do not force the victim to bend his knees, however, if this seems to increase the pain.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Blunt trauma to the chest may cause a variety of different injuries, but you do not have to assess the specific injury before helping the victim. Take these actions:

1. Call 9-1-1 immediately, because even with a closed chest injury, there may be serious organ damage.
2. Have the victim rest lying down or sitting up in a position that is most comfortable and makes breathing easiest.
3. Keep monitoring the victim's breathing.
4. If the victim may have broken ribs, offer a rolled towel, blanket, or folded coat to help the victim support and immobilize the affected chest area.

5. Be alert for signs of shock, which could result from internal bleeding. If so, give care for shock.
6. Try to calm and reassure the victim, and stay with the victim until help arrives.

- b. Immobilize his legs by padding between the knees and ankles and then bandaging them together, unless this causes more pain.
- c. Call 9-1-1.
- d. Treat him for shock and monitor his breathing until help arrives.

Scenarios for Additional Class Discussion

1. A heavy metal piece breaks loose from machinery in motion and strikes a co-worker in the side, knocking him to the floor. He is sitting up, clutching his side, wincing in pain with each breath taken. You find heavy bruising beginning a few inches below his armpit but no bleeding or open wounds. He is responsive but says it hurts to breathe or move. What do you do?
2. An electrician working on wiring behind the ceiling falls off the ladder onto a computer monitor on a desk. The glass of the monitor breaks and slices through the skin over her abdomen. She is still responsive but disoriented and confused. The gash in her abdomen is not bleeding heavily, but a purplish-white organ is pushing through the wound. How do you care for this victim?
3. An elderly customer loses his grip on his cane and falls, twisting sideways as he hits the floor. He is responsive but pale, unable to stand or move his legs, and says his left hip hurts badly. What first aid should you give?

Answers to Scenarios

1. The nature of the injury along with the victim's signs and symptoms suggests broken ribs. Give this first aid:
 - a. Have the victim sit in the position of easiest breathing.
 - b. Support the rib area with a pillow or soft padding. Bandage it loosely over the area and under his arm.
 - c. Call 9-1-1.
 - d. Monitor his breathing while waiting for help.
 - e. If needed, immobilize his arm on the affected side with a sling and binder to prevent movement and ease the pain.
2.
 - a. Lay the victim on her back and loosen any tight clothing. Allow her to bend her knees slightly if this eases pain.
 - b. Do not push the protruding organ back into her abdomen. Cover the wound with a dressing moistened with sterile or clean water, or plastic wrap.
 - c. Cover the moistened dressing with a dry sterile dressing and tape it loosely in place.
 - d. Call 9-1-1.
 - e. Treat her for shock and monitor her breathing until help arrives.
3. Give this care for a possible broken pelvis:
 - a. Help him lie on his back and bend his knees slightly if this eases the pain.

Lesson 15

Bone, Joint, and Muscle Injuries

Learning Checkpoint 1

- Use RICE for:
 - Most musculoskeletal injuries
 - Fractures only
 - Muscle injuries only
 - Muscle and joint injuries only
- True or False: Putting a commercial cold pack directly on the skin is the best way to relieve pain and reduce swelling.
- What is important about how you apply a compression bandage?
 - Using elastic roller bandage
 - Putting the cold pack under the bandage if needed
 - Checking that circulation is not cut off
 - All of the above
- Describe the steps you would follow to use RICE for an injured ankle.

Answers to Learning Checkpoint 1

- Most musculoskeletal injuries. You do not need to know the exact nature of the injury before using RICE.
- False. Do not put a cold pack directly on the skin because tissue damage could occur. Place a pad or cloth between the cold pack and the skin.
- d. All of the above.
- Rest the ankle.
Put an ice or cold pack on the injured area (no more than 20 minutes).
Compress the ankle with a roller bandage (over the cold pack).
Elevate the ankle.

Learning Checkpoint 2

- True or False: Call 9-1-1 for a fracture of a large bone such as the thigh bone.
- When immobilizing a fracture injury, what body area should be immobilized?
 - The immediate fracture area
 - The fracture area and the joint above it
 - The fracture area and both the joints above and below it
 - The entire victim
- True or False: With a fracture, you may also need to treat the victim for shock.
- The signs and symptoms of a bone or joint injury include which of the following? (Check all that apply.)

<input type="checkbox"/> Deformed area	<input type="checkbox"/> Pain
<input type="checkbox"/> Small or unequal pupils	<input type="checkbox"/> Inability to use body part
<input type="checkbox"/> Skin is hot and red	<input type="checkbox"/> Fever

_____ Swelling _____ Spasms and jerking of nearby muscles

- True or False: A victim with a sprained ankle should “walk it off.”

Answers to Learning Checkpoint 2

- True. Call 9-1-1 for any serious fractures or fractures of large bones.
- c. Immobilize the joints above and below a fracture area to keep the fractured bone from moving.
- True. Shock may result in a fracture from blood loss or pain.
- The signs and symptoms of a bone or joint injury include a deformed area, pain, swelling, and an inability to use the part.
- False. Moving or exerting a sprained joint will only make the injury worse.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

- First assess the seriousness of the injury. Have her gently remove her shoe and sock and check her toes for any signs that circulation has been cut off. If so, 9-1-1 should be called. Without ice or a cold pack there is little you can do for the injury except immobilize the area until help arrives.
- If circulation is good and there are no signs of a fracture or other severe injury, this is not an emergency that necessarily requires calling 9-1-1, but she still needs to see a healthcare provider. Ideally you should apply ice or a cold pack, if one is available. She should not try to walk on this leg, as bearing weight could cause additional injury. If it is possible for a friend or family member to bring a vehicle to the scene, she can be helped into it and driven to her healthcare provider or an emergency department. Immobilize the ankle first with a soft splint made from a pillow, towel, or other bulky material. If an elastic roller bandage is available, you may apply a compression bandage, and elevate the ankle, while waiting for transportation.

Scenarios for Class Discussion

- An employee riding his bicycle to work hits a pothole as he enters the parking lot, loses control, and swerves into the path of a moving pickup truck. The truck's bumper strikes his leg below the knee. By the time you reach the scene, the victim has been helped into a position lying down. He is responsive but in significant pain. You carefully cut open his pants leg and see an open wound that is bleeding, in which you can see the end of a broken bone end. Describe what care to give.

2. A workman has been carrying heavy equipment and supplies all morning to a construction site, and he now stumbles and falls. He says the muscle in his leg is “all cramped up” and really hurts when he walks on that leg. You see no sign of a fracture or other serious injury. What should you do?
3. While using a long pole to sweep leaves from a low roof, your neighbor twists her arm. She says her elbow hurts, but she can move it. There is some swelling, but no distortion suggesting a fracture or serious sprain. What care do you give?

Answers to Scenarios

1.
 - a. Keep the victim resting and keep his leg immobile.
 - b. Call 9-1-1.
 - c. Cover wound with dressing and apply gentle pressure around the fracture area to control the bleeding.
 - d. Put ice or a cold pack on the area.
 - e. Only if help may be delayed, immobilize the leg with a splint.
 - f. Treat the victim for shock.
 - g. Monitor his breathing while waiting for help.
2. Give this care for the muscle strain:
 - a. Have him rest the leg.
 - b. Put ice or a cold pack on the muscle: 20 minutes on, then at least 30 minutes off.
 - c. Wrap a compression bandage around the leg (it can be placed over the cold pack).
 - d. Elevate the leg.
 - e. If the pain is severe or persists, have him seek medical attention.
3. Use RICE for all bone, joint, and muscle injuries:
 - a. Have her rest the arm.
 - b. Put ice or a cold pack on the elbow as soon as possible. Apply it for 20 minutes at a time (to prevent skin damage) every 2 or 3 hours for the first 24 to 48 hours, or 72 hours for severe injuries.
 - c. Use an elastic roller bandage for compression. You can wrap the bandage around the ice or cold pack over injured area. Check the fingers or toes frequently to make sure circulation is not cut off.
 - d. Elevate the arm to help prevent swelling and control any internal bleeding.
 - e. If the pain is severe or persists, have her seek medical attention.

Extremity Injuries and Splinting

Learning Checkpoint 1

1. You encounter a victim with an obviously fractured forearm. What materials might you be able to find around the home that you can use to make a rigid splint?

2. When using a splint, which of the following are actions you should take? (Check all that apply.)

_____ Put a heating pad on the area	_____ Pad the splint
_____ Straighten out a limb before splinting it	_____ Put a cold pack around splint
_____ Dress an open wound before splinting	_____ Splint in position found
3. List signs that circulation has been cut off in an extremity below the splint.
4. Name two things you should *not* do when contemplating putting a victim’s arm in a sling.

Answers to Learning Checkpoint 1

1. You can make a rigid splint from many different materials, including a board, a piece of plastic or metal, a rolled newspaper or magazine, or thick cardboard.
2. Following are all actions to take when using a splint:
 - Pad the splint.
 - Put a cold pack around the splint.
 - Dress an open wound before splinting.
 - Splint in the position found.
3. Signs that circulation has been cut off in an extremity below the splint include swelling, skin cold and pale or discolored, and tingling or numbness.
4. Two things you should not do when contemplating putting a victim’s arm in a sling are:
 - Do not move the arm into position for a sling if this causes more pain.
 - Do not cover the fingers inside the sling, since you need to check circulation.

Learning Checkpoint 2

1. For an injured shoulder use a _____ splint.
2. A splint for a fracture of the forearm should extend from the _____ to the _____.
3. Why is a binder used over a sling?

- a. To prevent movement and give additional support
- b. To pull the fractured bone ends back into position
- c. To promote good circulation
- d. All of the above

Answers to Learning Checkpoint 2

1. Soft
2. Elbow, hand
3. a. A binder provides additional support and helps prevent movement of the arm.

Learning Checkpoint 3

1. You come upon a scene where a woman on a bicycle apparently ran into a light post. She is lying on the ground and says she has severe pain in her lower leg below the knee. You cannot tell whether the bone is broken, but there is no open wound and she says she cannot move her leg. What should you do?
2. A victim with a fracture of the femur may also experience what other condition?
 - a. Severe bleeding
 - b. Open or closed wound
 - c. Shock
 - d. All of the above
3. Explain when you may use two rigid splints.

Learning Checkpoint 3

1. You do not need to know for certain if the bone is broken, since there are signs and symptoms of a fracture (pain, inability to move the leg). Take these actions:
 - Have the victim stay lying down and immobilize the leg.
 - Call 9-1-1.
 - Put an ice or cold pack on the area.
 - Splint the leg if help may be delayed, using either an anatomic splint or a rigid splint from the upper leg to the foot.
2. d. A victim with a fracture of the femur may experience severe bleeding that can cause shock. The injury may be either open or closed.
3. With any fracture of an extremity, ideally the fracture should be splinted on both sides, using two rigid splints.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. The immediate issue is to assess the seriousness of her injury. Since movement such as straightening the arm could cause additional injury, you should not immediately try to take the girl's coat off to assess the injury. The mechanism of

injury, falling a short distance onto a relatively soft surface (wood chips), makes it unlikely that she has serious bleeding under her coat. Ask her where it hurts and if she can move the area.

2. Remove her glove on that hand and check for circulation in the fingers. If circulation has been impaired by the injury, then call 9-1-1 for immediate help.
3. If the hand has good circulation and she continues saying her elbow hurts a lot, and she will not move the arm voluntarily, you should assume a possibly serious musculoskeletal injury, apparently of the elbow. If her pain increases when you gently feel the arm through the coat sleeve, then significant injury is more likely. The best thing to do, before transporting her to a healthcare provider or emergency department, is immobilize the arm in the position in which she is holding it, using whatever materials are at hand. A soft splint or sling may be sufficient, or a rigid splint may be used to immobilize the elbow in the bent position.
4. Ideally with another adult assisting to prevent movement of the arm, she can be transported for medical attention.

Scenarios for Class Discussion

1. A window washer slips in a soapy water spill and falls to the ground from a second-floor scaffold, landing on his shoulder. He is sitting up, holding his upper arm tight against his body with his good hand, and says his shoulder really hurts and he cannot move it. He will not let you open his shirt to inspect the shoulder, but there doesn't seem to be any bleeding. What do you do?
2. At a company picnic at a state park out of town, a child falls from a tree and fractures her forearm. You give appropriate first aid (following RICE), and the parents now will take her to the nearest emergency department. Should you splint the arm? If so, describe the steps for doing it.

Answers to Scenarios

1. You can't know for sure if he has a fracture or dislocation of the shoulder joint, but you do not need to know which in order to give this first aid:
 - a. Have the victim rest and immobilize his shoulder and arm in the position found.
 - b. Call 911.
 - c. Put ice or a cold pack on the area.
 - d. If help may be delayed, use a splint to immobilize the area.
 - e. Treat the victim for shock.
 - f. Monitor his breathing until help arrives.
2. You should splint the arm to prevent movement that may cause additional injury and pain during the ride to the emergency room. You can improvise a rigid splint from materials at hand. Follow these steps to apply the splint:
 - a. Support the arm.
 - b. Position the arm on a rigid splint.
 - c. Secure the splint.

- d. Check circulation.
- Then apply a sling and binder to immobilize the whole arm:
- a. Secure the point of the bandage at the elbow.
 - b. Position the triangular bandage.
 - c. Bring up the lower end of the bandage to the opposite side of the neck.
 - d. Tie the ends.
 - e. Tie a binder bandage over the sling and around the chest.

Lesson 17

Sudden Illness

Learning Checkpoint 1

1. True or False: With an unknown sudden illness, do not give the victim anything to eat or drink.
2. Check off the common signs and symptoms of heart attack:

<input type="checkbox"/> Skin red and flushed	<input type="checkbox"/> Nausea
<input type="checkbox"/> Tingling in fingers and toes	<input type="checkbox"/> Headache
<input type="checkbox"/> Shortness of breath	<input type="checkbox"/> Pale skin
<input type="checkbox"/> Chest pain or pressure	<input type="checkbox"/> Unusual cheerfulness
<input type="checkbox"/> Sweating	<input type="checkbox"/> Dizziness
3. How do you decide if a victim's chest pain may be a heart attack or angina?
4. The immediate first action to take for a heart attack victim is _____
5. It may be important to position a stroke victim such that:
 - a. Fluids drain from the mouth
 - b. The victim's head is protected from injury during convulsions
 - c. The victim can sit up even if partially paralyzed
 - d. The victim's head is lower than rest of the body

Answers to Learning Checkpoint 1

1. True. With an unknown sudden illness, the victim should not eat or drink.
2. The common signs and symptoms of a heart attack include shortness of breath, chest pain or pressure, sweating, nausea, pale skin, and dizziness.
3. The chest pain of angina usually occurs following exertion and lasts only a few minutes. If it persists 10 minutes or more, of the victim has other signs and symptoms of a heart attack, give first aid as for a heart attack.
4. Call 9-1-1. Do not delay, because the victim needs advanced medical care immediately.
5. a. Fluids drain from the mouth. A stroke victim may vomit or drool, possibly causing choking if the fluid does not drain out.

Learning Checkpoint 2

1. True or False: You cannot give first aid for a person with difficulty breathing unless you know the specific cause of the problem.
2. To help someone breathe easier
 - a. Position the victim flat on his or her back
 - b. Have the victim stand, and clap him or her on the back with each breath
 - c. Have the victim sit and put his or her head between the knees
 - d. Let the victim find the position in which he or she can breathe most easily

3. What is the best thing a victim with asthma can do when having an asthma attack?
4. True or False: Have a hyperventilation victim breathe into a bag in order to start breathing normally again.
5. When should you call 9-1-1 for a victim who seems to be hyperventilating?

Answers to Learning Checkpoint 2

1. False. You do not need to know the specific cause of the breathing difficulty but can care for the victim anyway: call 9-1-1, help the victim rest in the position for easiest breathing, assist with any prescribed medications, and be prepared to give basic life support.
2. d. Let the victim find the position for easiest breathing.
3. The best thing an asthma victim can do during an attack is to use his or her prescribed inhaler; the medication should control the attack.
4. False.
5. Call 9-1-1 for a hyperventilating victim if breathing does not return to normal within a few minutes.

Learning Checkpoint 3

1. When should you call 9-1-1 for a victim who faints?
2. True or False: When a person has fainted, lay him or her down and raise the head and shoulders about 12 inches.
3. For a victim having seizures
 - a. Lay the victim face down on the floor
 - b. Ask others to help you hold the victim's head, arms, and legs still
 - c. Put something flat and soft under the victim's head
 - d. Put something wood, like a pencil, between the victim's teeth
4. Name at least three situations in which you should call 9-1-1 for a seizure victim.
5. What should you do for a young child whose abdomen is swollen and feels hard?
6. Check off common signs and symptoms of a low blood sugar diabetic emergency:

<input type="checkbox"/> Dizziness	<input type="checkbox"/> Red, blotchy skin
<input type="checkbox"/> Hunger	<input type="checkbox"/> Sweating
<input type="checkbox"/> Rapid deep breathing	<input type="checkbox"/> Confusion
<input type="checkbox"/> Clumsiness	<input type="checkbox"/> Swollen legs
7. In the late afternoon you see a friend at the library who is acting oddly. She is sitting at a table staring into space, and when you ask her if she is okay, she does not seem to understand what you are saying. She looks ill, her skin is pale, and she is sweating even though the room is not warm. You know this woman is diabetic and you suspect that she might have skipped lunch today. You cannot be sure whether she has low or high blood sugar. What should you do?

Answers to Learning Checkpoint 3

1. Call 9-1-1 for a victim who faints if the victim does not regain responsiveness soon or faints repeatedly.

2. False. Lay the victim down and raise his or her feet, not the head, about 12 inches.
3. c. Place something flat and soft under the victim's head. Do not try to hold the victim still, and do not put anything between the teeth.
4. Call 9-1-1 for a seizure victim:
 - if the seizure lasts more than 5 minutes
 - if the victim is not known to have epilepsy
 - if the victim recovers very slowly or has trouble breathing
 - if the victim has another seizure
 - if the victim is pregnant
 - if the victim is wearing another medical ID
 - if the victim is injured
5. Seek urgent medical care for a young child whose abdomen is swollen and feels hard.
6. Common signs and symptoms of a low blood sugar diabetic emergency include dizziness, hunger, clumsiness, sweating, and confusion.
7. If you cannot judge whether the victim has low or high blood sugar, give sugar to the victim as for low blood sugar. Seek medical attention if the victim does not improve within 15 minutes.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

This woman has the signs of respiratory distress: difficulty breathing, pale skin, sitting in the tripod position (for easiest breathing). You do not need to know the specific cause of the problem in order to help her.

Because respiratory distress may progress to respiratory arrest, a life-threatening emergency, it is critical to call 9-1-1 immediately to get help on the way. Although this victim says she does not know the cause of her problem, you should still ask if she takes any medication for a medical problem, and assist her with the medication if appropriate. Help her rest in a position for easiest breathing. Stay with her until EMS personnel arrives, and help calm and reassure her that help is on the way.

Scenarios for Class Discussion

1. You enter your boss's office to find her at her desk, looking ill. Her skin is pale and she is sweating. Her chest hurts, but she says "It must have been something I ate—it feels like really bad heartburn." She is obviously short of breath. What should you do?
2. Standing in the checkout line at the supermarket, you see the elderly woman in front of you suddenly stagger and fall over her grocery cart. You help her to sit on the floor. She seems confused and is trying to say something, but you cannot

- make out her words; one side of her mouth seems frozen. Then she leans back and becomes unresponsive. What do you do?
3. You encounter a co-worker sitting at his desk looking ill. He is having trouble breathing, gasping and is trying to catch his breath. You ask what is wrong and he says he does not know but suddenly he feels dizzy. What do you do?
 4. You know that one of your co-workers has asthma, but it always seems under control. One day the two of you have been working outdoors on a smoggy day when suddenly he is wheezing and can barely speak. He is panicked and seems helpless. What do you do?
 5. In the cafeteria, an employee has fallen to the floor and is shaking in convulsions. Several people are standing around but no one is doing anything. As you come up, you hear someone say you are supposed to put a pencil between his teeth to keep him from grinding his jaws together. You see a medical bracelet on the victim's arm. What do you do?
 6. A co-worker who you know is diabetic comes in your office and asks if you have anything with sugar in it. He feels dizzy and shaky and almost collapses into a chair. You search through your desk looking for anything sweet, then remember that the man in the next office often has candy. You say you'll be right back, run to the next office, but he isn't there. You check with a few others and eventually obtain a candy bar, but by the time you return to your office, the man is slumped in the chair unresponsive. What should you do?

Answers to Scenarios

1. Since she may be having a heart attack, take these actions:
 - a. Call 9-1-1 immediately, even if she says it is not that serious.
 - b. Help her rest in a comfortable position. Loosen any constricting clothing.
 - c. Allow her to take one aspirin (unless she is allergic).
 - d. Stay with her, be reassuring and calming, and be prepared to give BLS.
 - e. Ask her if she is taking heart medication, and help obtain the medication.
 - f. Do not let her eat or drink anything.
2. You think she may be having a stroke. Do this:
 - a. Have someone call 9-1-1.
 - b. Put her in the recovery position.
 - c. Monitor her breathing and be prepared to give BLS.
 - d. Keep her warm and stay with her until help arrives.
3. You need not know the cause of respiratory distress before giving first aid. Take these steps:
 - a. Call 9-1-1.
 - b. Help him rest in the position of easiest breathing.
 - c. Ask him whether he takes any prescribed medicine, and help with medication if needed.
 - d. Stay with him and be prepared to give BLS.
4.
 - e. Calm and reassure him (anxiety increases breathing distress)
5. Most people with asthma carry medication (an inhaler) for asthma attacks. Ask him if he has his inhaler and get it for him if needed. Help him use it, resting in a position for easiest breathing. If his breathing difficulty persists after using the inhaler, call 9-1-1.
 - a. Most important, prevent injury to the victim during the seizure by moving away objects and putting something flat and soft under his head.
 - b. Check the medical bracelet, which may say he has epilepsy. If he has any other medical condition, have someone call 9-1-1.
 - c. Loosen clothing around his neck to ease breathing.
 - d. Do not let anyone put anything in his mouth.
 - e. If he vomits, gently turn him onto one side to help keep his airway clear.
 - f. Be reassuring as he regains responsiveness.
6. Call 9-1-1 if the seizure last more than 5 minutes, if the victim is not known to have epilepsy, if the victim recovers very slowly or has trouble breathing or has another seizure, or if victim is injured.
 - a. Call 9-1-1 immediately. Monitor his breathing until help arrives.

Lesson 18

Poisoning

Learning Checkpoint 1

1. Check off the common signs and symptoms of a swallowed poison.
 Nausea Red lips
 Uncontrolled shaking Vomiting
 Dizziness Unresponsiveness
 Drowsiness Hyperactivity
2. Name one action you would take for a victim of food poisoning that you would not do for a victim of swallowed poison.
3. The first thing to do for a victim of carbon monoxide poisoning is:
 - a. Loosen tight clothing around the neck
 - b. Call 9-1-1
 - c. Move victim to fresh air
 - d. Position the victim in the recovery position
4. You are in a friend's house when you enter the kitchen and find the friend's child unresponsive on the floor. The cabinet under the sink is open, and the cap is off a bottle of a cleaning product. Describe what actions you need to take.

Answers to Learning Checkpoint 1

1. The common signs and symptoms of a swallowed poisoning include nausea, dizziness, drowsiness, vomiting, and unresponsiveness.
2. Give the victim lots of fluids to drink.
3. c. Move the victim to fresh air.
4. This is likely a poisoning situation. Call 9-1-1 and give basic life support as needed. Put the child in the recovery position. Tell the 9-1-1 dispatcher and the arriving crew about the open cleaning product.

Learning Checkpoint 2

1. True or False: Never put water on a site of contact with poison ivy because of the risk of spreading the rash further.
2. When should a person with a poison ivy or oak rash see a healthcare provider?
3. Which of the following can help reduce the itching of poison ivy?
 - a. Hydrocortisone cream
 - b. Rubbing alcohol
 - c. A paste made with dishwasher detergent
 - d. All of the above

Answers to Learning Checkpoint 2

1. False. Use soap and water to wash the area to minimize the reaction as much as possible.
2. See a healthcare provider for severe reactions or swelling of the face or genitals, or signs of infection (fever, pus).
3. a. Hydrocortisone cream. (Also colloid oatmeal, baking soda paste, or calamine lotion.)

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Because he is responsive, it is appropriate to call the Poison Control Center rather than 9-1-1 for this case of potential poisoning. Try to find out more specifically how many pills Danny took (ask him to show you how many), and take the bottle with you to the telephone to tell the PCC exactly what is written on the label. (Do not, however, follow any overdose first aid instructions that might be printed on the bottle, which may not be appropriate or correct.)

Do not give Danny any other first aid before calling the PCC, and then follow their instructions for treating the specific substance he has taken. (This could involve calling 9-1-1, taking him to the emergency department or his healthcare provider, or other actions you might take at home - based on information the PCC has about the substance.)

This scenario reminds us that parents and guardians need to actively prevent poisonings not only in their own home but in any setting in which small children might encounter a poisonous substance.

Scenarios for Class Discussion

1. A handyman is working in your garage, stripping old paint using an industrial solvent. When you go to check on the work, you find him leaning against the wall, saying he just feels a bit dizzy. There are strong fumes from the solvent in the garage. What do you do?
2. In the morning you helped clear away some brush and weeds in a neighbor's property. Now you have developed a red rash on your forearms that is very itchy. What should you do?

Answers to Scenarios

1. You do not need to know the chemicals involved to give first aid for suspected inhaled poison. Follow these steps:
 - a. Immediately move the man to fresh air.

- b. Call 9-1-1 even if he seems to recover.
 - c. Stay with him, monitor his condition, and be ready to give BLS as needed.
 - d. If he becomes unresponsive, put him in the recovery position.
 - e. Loosen tight clothing around his neck or chest.
2. You may have encountered poison ivy or poison oak. Take these steps:
- a. Wash your hands and arms thoroughly with soap and water.
 - b. For severe reactions or if face swelling develops, seek medical attention.
 - c. Treat the itching with a colloid oatmeal baths; a paste made of baking soda and water, calamine lotion, or topical hydrocortisone cream; and an oral antihistamine.
 - d. Wash your clothing and shoes and anything else that may have contacted the plants to prevent further spread.

Lesson 19

Substance Misuse and Abuse

Learning Checkpoint 1

1. The most commonly abused drugs in the United States are:
 - a. alcohol and marijuana
 - b. marijuana and cocaine
 - c. cocaine and pain relievers
 - d. heroin and hallucinogens
2. Substance abuse efforts should focus on people in what age group(s)?
3. Put a check mark next to appropriate actions to help prevent misuse of prescribed drugs:
 - Take medications only when feeling the symptoms for which the medication is prescribed.
 - Read product information that comes with prescription medications.
 - Keep medications in their original labeled containers.
 - Use medications prescribed for someone else only when you are certain you have the same condition as the person with the medication.
 - Ensure that a person with diminished judgment cannot accidentally take too much medication.

Answers to Learning Checkpoint 1

1. a. Remember: alcohol is still a drug even though legal for those of age.
2. Because alcohol and other drug abuse typically begin at young ages, prevention efforts focus on children and adolescents.
3. Following are appropriate actions to help prevent misuse of prescribed drugs:
 - Read product information that comes with prescription medications.
 - Keep medications in their original labeled containers.
 - Ensure a person with diminished judgment cannot accidentally take too much medication.
 In addition:
 - *Always* take medications as prescribed—not only when feeling symptoms. Many medical conditions requiring drug treatment do not cause noticeable symptoms.
 - *Never* use medications prescribed for someone else—even when you are certain you have the same condition as the person with the medication. People vary in their responses to medications, and only a healthcare provider can know what medication is appropriate for you.

Learning Checkpoint 2

1. Describe what to do for an intoxicated person who “passes out.”
2. How is alcohol similar to narcotic drugs in high doses?

- a. Both stimulate the user to increased mental alertness
 - b. Both are depressants and can lead to impaired respiration or coma
 - c. Both can cause dangerously high blood pressure and internal bleeding
 - d. All of the above
3. Check off appropriate actions to take for a person with a drug or medication overdose:
- ___ Position an unresponsive victim on the back with legs raised (shock position)
 - ___ Call 9-1-1 or the Poison Control Center
 - ___ Restrain a potentially violent person to prevent self-injury
 - ___ Check for injuries that may require first aid
 - ___ Induce vomiting if the person is responsive
 - ___ Try to keep the person awake and talking
 - ___ Try to find out what the person took

Answers to Learning Checkpoint 2

1. For an intoxicated person who becomes unresponsive, take these actions:
 - Check the person for injuries or illness.
 - Position the victim in the recovery position; be prepared for vomiting.
 - Monitor the victim and provide BLS if necessary.
 - Call 9-1-1 if the victim's breathing is irregular, if seizures occur, or if the victim cannot be roused (coma).
 - In a cold environment, protect the person from hypothermia.
2. b
3. Following are appropriate actions to take for a person with a drug or medication overdose:
 - Call 9-1-1 or the Poison Control Center.
 - Check for injuries that may require first aid.
 - Try to keep the person awake and talking.
 - Try to find out what the person took.
 In addition:
 - Position an unresponsive victim in the recovery position because vomiting is likely – *not* on the back.
 - Because of the risk of being injured, *never* try to restrain a potentially violent person – leave this to law enforcement personnel.
 - Do not try to induce vomiting with any victim at any time unless so instructed by the Poison Control Center.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Most important, do not simply assume she is drunk and passed out and will be fine when she awakes. Drinking a large amount of alcohol in a short period of time can cause alcohol poisoning, which may result in unresponsiveness, seizures, or death. Follow these guidelines:

1. Since she is unresponsive, first check to make sure she is breathing. Then ensure she is not comatose (see if you can rouse her).
2. If she becomes unresponsive again after being roused, position her in the recovery position (preferably on left side to reduce the risk of vomiting); be prepared for vomiting.
3. Monitor her breathing and be prepared to provide BLS if necessary.
4. Call 9-1-1 if her breathing is irregular, if seizures occur, or if she cannot be roused (coma).
5. Check for injuries or illness. Do not assume alcohol is the factor, or only factor, involved. Ask others if they know how much she drank or if she has any medical problems.

Scenarios for Class Discussion

1. You enter a room where your aunt is closing a medication container, saying she has just taken her prescribed daily pills. Then she admits she was interrupted by a telephone call and in her confusion may have taken too many. Now she is feeling a little drowsy. Is there reason to be concerned? What should you do?
2. You are at a party on campus where some of the students are drinking excessively and you suspect a few may be using drugs. A man bursts into the room from the hallway leading to the bedrooms, looking very distraught and saying, "Man, Sandra's really out of it! She's really sick." No one else seems to be paying attention, so you ask him what is wrong. He is incoherent, however, just repeating over and over in a slurred voice that she's sick, and you notice that the pupils of his eyes are very dilated.
 - a. You go to the bedroom and find a woman on the bed, having just vomited. You ask if she needs help, and she seems unable to focus on you. She says nothing. What should you do?
 - b. You ask again if you can help, and she shakes her head violently. A moment later her eyes close and she seems to have passed out. Her breathing is slow. You try but cannot rouse her. Now what should you do?

Answers to Scenarios

1. Overdose of prescription medication can become an emergency. Find out what medication she has taken and call the Poison Control Center and follow their recommendations. If she experiences any signs and symptoms of an overdose, call 911.

2.
 - a. The signs point to a potential drug abuse situation, but you should be open to other possible causes of her condition, such as a diabetic emergency or other medical condition affecting her mental status. Observe her carefully for any signs or symptoms of a life-threatening problem while you try to gain more information. If she is responsive, ask her if she took a drug so that you can give this information to the Poison Control Center or EMS if you need to call 9-1-1.
 - b. Because she is unresponsive, this is a life-threatening emergency (and you now have implied consent to help). Call 9-1-1 if you have a cell phone with you, or shout for someone else to call. Stay with her and be prepared to give BLS if necessary. Since she may vomit again, position her in the recovery position. Keep monitoring her breathing until help arrives.

Lesson 20

Bites and Stings

Learning Checkpoint 1

1. To minimize the risk of rabies from an animal bite, take which action?
 - a. See a healthcare provider immediately
 - b. See a healthcare provider if you experience heavy salivation 5 to 7 days after the bite
 - c. Capture the animal and take it to a veterinarian for examination
 - d. Soak the wound area with rubbing alcohol
2. Why can a human bite lead to a serious medical condition?

Answers to Learning Checkpoint 1

1. a. See a healthcare provider immediately. Do not wait until you develop symptoms, and do not try to capture the animal. You cannot kill the rabies germs by treating the wound site.
2. Human bites can be serious because human mouths usually contain many germs.

Learning Checkpoint 2

1. List three key actions to take for a victim of snakebite.
2. Check off situations in which you should call 9-1-1 for a spider bite:

<input type="checkbox"/> All spider bites	<input type="checkbox"/> If there is any pain at the bite site
<input type="checkbox"/> Any spider bite in diabetic victim	<input type="checkbox"/> If the victim has trouble breathing
<input type="checkbox"/> Any brown recluse spider bite	<input type="checkbox"/> If you have no ice to put on the bite
3. A tick is best removed from the skin using _____.
4. A prominent initial sign of Lyme disease following a tick bite is:
 - a. Pain and burning at the site
 - b. Bull's-eye rash
 - c. High fever within 24 hours
 - d. All of the above

Answers to Learning Checkpoint 2

1. Have the victim stay calm and lie down with the bitten area below the level of the heart.
Call 9-1-1.

2. Wash the bite wound with soap and water.
3. Call 9-1-1 for a spider bite if the victim has trouble breathing or the bite is from a brown recluse spider.
4. Tweezers.
5. b. Bull's-eye rash is a common early sign of Lyme disease. Tick bite does not usually cause pain or burning at the site. Fever may occur with Lyme disease but usually not until much later.

Learning Checkpoint 3

1. A bee's stinger can be removed from the skin using _____.
2. A co-worker was stung by a honeybee when passing the flower garden by your building's entrance. As she tells you about this, you see that her face is turning red, the skin around her eyes and mouth looks puffy, and she seems short of breath. What are the most important actions to take first? Why?
3. What substance can be put on a jellyfish sting to help ease the pain?
 - a. Boiling water
 - b. Catsup or mayonnaise
 - c. Vinegar or baking soda
 - d. Any of the above

Answers to Learning Checkpoint 3

1. A credit card or piece of rigid plastic.
2. Since she seems to be having an allergic reaction to the bee sting, you should first call 9-1-1, ask if she has an epinephrine kit, monitor her breathing, and treat for shock.
3. c. Vinegar or baking soda applied in a compress or paste help stop the stinging and itch. Boiling water would cause a burn. Catsup and mayonnaise are not treatments.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

1. Ask students first what is the most important risk in this scenario. They should remember that a wasp sting may cause anaphylaxis if the victim is allergic. The victim's breathing may then be threatened, causing a life-threatening emergency. If any of the signs and symptoms of an allergic reaction appear, call 9-1-1 immediately, and monitor the victim's breathing. Be prepared to give basic life support.
2. Since the victim in this scenario is a toddler, this may be her first wasp sting - so you may not know whether or not she is allergic. Watch carefully for the development of any symptoms (difficulty breathing, swelling in other areas, anxiety, nausea or vomiting). If so, call 9-1-1 and give care for anaphylaxis.

3. If there are no serious signs and symptoms, the sting, although painful, is probably not serious. Check for a stinger still present in the skin or her lip, and gently scrape it away. An ice or cold pack will help reduce the pain. Watch for any swelling of the mouth area that might affect breathing.

Scenarios for Class Discussion

1. A friend is bitten by a dog, which then runs off. The wound is minor, but the skin is broken. What should you advise him to do?
2. You are visiting another student, who tells you she was just bitten by a spider in her basement. She saw it only momentarily but thinks it may have been a black widow spider. What do you do?

Answers to Scenarios

1. With any animal bite there is a risk of rabies. Take these steps:
 - a. Clean the wound with soap and water. Run water over the wound for 5 minutes.
 - b. Control the bleeding.
 - c. Cover the wound with a sterile dressing and bandage.
 - d. The victim should see a healthcare provider or go to emergency department right away.
 - e. The bite should be reported to local animal control officers or police, because certain procedures must be followed due to the rabies risk.
2. Because black widow spider bites are poisonous, she needs medical attention. Follow these steps:
 - a. If she develops difficulty breathing, call 9-1-1 and be prepared to give BLS.
 - b. Have her keep the bite area below the level of her heart.
 - c. Wash the area with soap and water.
 - d. Put ice or a cold pack on the bite area.
 - e. If 9-1-1 has not been called, she should go to the emergency department.

Lesson 21

Cold and Heat Emergencies

Learning Checkpoint 1

1. True or False: Rubbing frostbitten fingers is the best way to warm them.
2. Frostbitten skin usually has what color(s)?
3. A friend stops by your house after being outside for some time, complaining of being very cold. He has lost his hat and his ears are white and hard and he says he has no feeling in them. Describe three actions to take for this man's frostbite.

Answers to Learning Checkpoint 1

1. False. Rubbing frostbitten skin can cause damage. Instead, warm it against warm skin or in warm water.
2. Waxy white, gray, yellow, or bluish.
3. Warm his ears with your warm hands (gently). Protect the ears from being rubbed on clothing or other objects. The victim needs immediate medical care.

Learning Checkpoint 2

1. True or False: Hypothermia occurs only when the air temperature is below freezing.
2. True or False: A hypothermia victim who is generating heat by shivering still needs first aid and warming.
3. A mildly hypothermic victim is brought into a ski lodge to be warmed. It will help to:
 - a. Give him a warm rum drink
 - b. Have him take off his outer clothes and sit close to the fire
 - c. Send him to a hot shower
 - d. Remove his damp clothing and warm him with a blanket
4. You are on a backpacking camping trip in the mountains and are caught in an unexpected snowstorm. On the way back down the mountain, about 4 miles from your car, you encounter a teenager sitting in the snow. His clothes are snowy and damp. He is lethargic and seems very confused. You call for help on your cell phone, but it will be at least 2 hours before the rescue team arrives. Using typical camping gear, what first aid can you give this victim?

Answers to Learning Checkpoint 2

1. False. Hypothermia can occur any time the climate is cool enough to feel cold.

2. True. Shivering does produce body heat but is not always enough. If the victim has signs and symptoms of hypothermia, help warm his body even if he is shivering.
3. d. Remove damp clothing and warm a hypothermic person with a blanket. Do *not* let him drink alcohol, and do *not* warm him too quickly with a heat source like a fire or a hot shower.
4. Answers may vary depending on equipment the first aider is thought to have. Ideally, get the hypothermic victim out of the cold environment into a tent. Remove his cold damp clothing and get him into dry clothing and a sleeping bag. If there is a stove, heat water to make him a warm drink.

Learning Checkpoint 3

1. True or False: For abdominal heat cramps, the best care is vigorous massage and stomach kneading.
2. To treat heat cramps:
 - a. Immerse the victim in a bathtub of cold water
 - b. Give a sports drink or water to drink
 - c. Keep the victim very active until the cramp works itself out
 - d. Do not let the victim eat or drink anything
3. True or False: Give salt tablets to victims who have both heat cramps and heat exhaustion.
4. The problem of heat exhaustion begins when a person in a hot environment is not getting enough _____.
5. List three possible ways to cool a victim with heat exhaustion.

6. On a hot day you join a friend on the athletic field who has been working out for a couple hours. He is sitting on the grass in the sun. He is sweating heavily and says he has a headache and feels nauseous. Someone has already given him a sports drink. What should you do now? List in correct order the first four actions you would take.

Answers to Learning Checkpoint 3

1. False. Have the victim rest comfortably and drink a sports drink.
2. b. Give a sports drink or water to drink because the body needs fluids.
3. False. Do not give salt tablets. Give a sports drink if the victim is awake and alert.
4. Fluids.
5. Three ways to cool a heat exhaustion victim:
 - Put wet cloths on the forehead and body.
 - Sponge the skin with cool water.
 - Spray the skin with water from a spray bottle and fan the area.

6. First, get him out of the sun and into a cool place. Loosen or remove unnecessary clothing. Give a sports drink or water. Have him lie down and raise his legs 8-12 inches. Cool his body with one of the methods above.

Learning Checkpoint 4

1. True or False: It is safe to drive a heatstroke victim home after you have given first aid to cool his or her body down to 100 degrees Fahrenheit, as long as the victim is feeling better.
2. In what situation should you call 9-1-1 for a heatstroke victim?
3. Describe how a heatstroke victim's behavior may be different from how that person usually behaves.
4. Your softball game happens to fall on the hottest day of the year. Your coach knows you have first aid training and asks you to help out to make sure none of the students has problems with heat exhaustion or heatstroke.
 - a. To be prepared for these possibilities, what things should you make sure are present at the ball field?
 - b. You decide to give a safety talk to your team before the game begins. What would you tell them about how to prevent heat emergencies? What signs and symptoms of a potential problem should players watch out for in others on their team?
 - c. Despite these precautions, by the seventh inning the center fielder seems to be showing signs and symptoms of heatstroke. What is the first step you should take?

Answers to Learning Checkpoint 4

1. False. Heat stroke is a medical emergency, and the victim may still be at risk. Call 9-1-1.
2. Call 9-1-1 for *all* instances of heatstroke.
3. A heatstroke victim may be acting very confused or disoriented, dizzy, and irrational; the victim may become unresponsive.
4.
 - a. Have plenty of nonalcoholic fluids present. Be sure there is a shady spot for resting.
 - b. Tell everyone to avoid too much exertion (especially those who are older or overweight). Make sure you keep drinking enough fluids. Stop and rest in the shade if you start feeling overheated. Tell everyone to watch for signs and symptoms of heat exhaustion in others: heavy sweating, thirst, fatigue, heat cramps, headache or dizziness, or nausea and vomiting. (Also be alert for the signs and symptoms of heatstroke—but it is better to stop and treat the person in the earlier stages of heat exhaustion.)
 - c. Call 9-1-1 for a heatstroke victim.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

The neighbor has several of the signs and symptoms of early hypothermia: shivering, poor coordination, slurred speech, and lethargy. Because his body temperature will likely continue to drop and life-threatening hypothermia set in, you have to get him warm very soon.

Immediate actions to help him warm up could include wrapping him in a blanket or coats, but he also needs to be in a warmer environment. Explain why either the heat must be turned up higher in his house or he must go elsewhere where it is warm. (You may offer to call his family members for him or the city's social services for assistance.)

In this case the hypothermia is mild, but if it were more severe, you should call 9-1-1 because he would need medical attention. Remember that hypothermia is a progressive condition: if he is not warmed and moved to a warmer environment, his signs and symptoms will progressively worsen as his body temperature falls further and his condition becomes life threatening.

Scenarios for Class Discussion

1. You are working outside on a bitterly cold day. Your co-worker is wearing only thin cotton gloves, and after a few hours he says his fingers have become numb. You look at them, and the skin looks waxy and white. What should you do?
2. A workman broke through the ice in a shallow pond, and it was some time before he could be pulled out. His head did not go below the surface, but he is shivering uncontrollably and seems very lethargic. What steps should you take?
3. On a hot day you are driving through a road construction area when you see two men standing around a co-worker lying on the ground. They do not know what happened to her or what to do. She is unresponsive and breathing fast. Her skin is flushed, dry, and hot to your touch. What should you do?

Answers to Scenarios

1. He likely has frostbitten fingers. Take these steps:
 - a. Move him to a warm environment. Hold the frostbitten fingers in your hands to warm them, or have him warm them in his armpits. If they seem severely frostbitten and you are not close to a healthcare provider (and there is no danger of them refreezing), you may warm his fingers in lukewarm, not hot, water for at least 20 minutes or up to 45 minutes.
 - b. Remove any rings on his fingers.
 - c. Put dry gauze or fluffy cloth between the frostbitten fingers.
 - d. Have him seek medical attention as soon as possible.
 - e. Keep the hands elevated to reduce swelling.
 - f. Prevent the fingers from refreezing.
 - g. He may take aspirin, acetaminophen, or ibuprofen for pain.
 - h. He may drink warm liquids *but not alcohol*.

2. Treat him for hypothermia:
 - a. Quickly get him out of the cold, and remove his wet clothing.
 - b. Have him lie down, and cover him with blankets or warm clothing.
 - c. As long as he is alert, give him warm drinks *but not alcohol*.
 - d. He likely needs immediate medical care and should be transported to an emergency department or 9-1-1 called.
3. Since she may have heatstroke, a life-threatening emergency, take these steps:
 - a. Have someone call 9-1-1.
 - b. Move her to a cool place.
 - c. Remove her outer clothing and put her in the recovery position.
 - d. Cool her quickly by any means:
 - Wrap her in a wet sheet and keep it wet.
 - Sponge her with cold water.
 - Spray her skin with water and fan it.
 - Put ice bags or cool packs beside her neck, armpits, and groin.
 - e. Keep cooling until her body temperature drops to approximately 100 degrees Fahrenheit.
 - f. Stay with her and be prepared to give BLS if needed.

Behavioral Emergencies

Learning Checkpoint 1

1. Normal responses to many injuries and sudden illnesses include:
 - a. Trembling or shakiness
 - b. Fear, anxiety
 - c. Altered mental status
 - d. All of the above
2. Check off any of the following conditions that may cause altered mental status:

<input type="checkbox"/> Respiratory emergencies	<input type="checkbox"/> Cardiac emergencies
<input type="checkbox"/> Poisoning	<input type="checkbox"/> Head injuries
<input type="checkbox"/> Seizures	<input type="checkbox"/> Diabetic emergencies
<input type="checkbox"/> Stroke	<input type="checkbox"/> High fever
<input type="checkbox"/> Drug overdose	<input type="checkbox"/> Heat or cold emergencies
3. Describe at least 5 things you can do to help calm an emotional victim.
4. True or False: Never acknowledge that a depressed person seems sad, but be cheerful and pretend nothing is wrong.
5. True or False: People who talk about suicide rarely do it.
6. You see an injured victim who is shouting and making threatening gestures, and you realize he is potentially violent. Number the following actions in the order in which you should take them:
 - Talk to the person calmly and quietly, and try to divert the person from any violent action by keeping him or her talking.
 - Call 9-1-1.
 - Do not enter the scene if there is a risk to your safety. Encourage others present in the scene to withdraw.

Answers to Learning Checkpoint 1

1. d
2. All of the conditions listed may cause altered mental status.
3. Following are guidelines to help calm an emotional victim:
 - Tell the victim who you are and say you are there to help. Avoid seeming judgmental.
 - Do not assume the victim is intoxicated, using drugs, or otherwise impaired.
 - Reassure the victim that help is on the way (after 9-1-1 has been called).
 - Ask the victim for his or her name, and use it when speaking to him or her.
 - If possible, try to involve any victim's friend or family member present at the scene.
 - Let the victim tell you what he or she thinks is wrong.
 - Let the victim know you understand his or her concerns.
 - Make eye contact with the victim.
 - Speak in a caring, reassuring voice, but do not give false reassurances or lie about the victim's condition.

- Do not argue with the victim. Show that you understand the victim's concerns by repeating or rephrasing what the victim tells you.
 - If the victim seems irrational or delusional, do not make statements that support false beliefs, but do not challenge them.
 - Stay a safe distance away from the victim until your help is accepted. If the victim does not accept your help, do not attempt to restrain him or her or force care on him or her.
 - Tell the victim what you plan to do before doing it.
 - Move calmly and slowly, touching the victim only as necessary.
4. False. It is better to encourage the victim to talk: acknowledge that the person seems sad and ask why.
 5. False. This is a common myth. Talking about suicide is a warning sign that the person is contemplating suicide.
 6. To ensure your own safety and get help fast, take these steps in this order:
 1. Do not enter the scene if there is a risk to your safety. Encourage others present in the scene to withdraw.
 2. Call 9-1-1.
 3. Talk to the person calmly and quietly, and try to divert the person from any violent action by keeping him or her talking.

Learning Checkpoint 2

1. If you suspect a child is being abused by a parent, the most important thing to do is:
 - a. Talk to the parent so that he or she can get help
 - b. Remove the child from the home
 - c. Report the situation to authorities
 - d. Talk to the spouse of the abusing parent and let him or her decide what to do
2. Check off common characteristics of victims of domestic violence:
 - ___ They love their partner
 - ___ They are not afraid of their partner
 - ___ They feel guilty and may blame themselves for the violence
 - ___ They often have low self-esteem
 - ___ They feel close to family and friends
 - ___ They depend emotionally and/or financially on their partner
3. Elder abuse includes:
 - a. Sexual abuse
 - b. Abandonment
 - c. Neglect
 - d. All of the above
4. List six important first aid actions for a victim injured in a rape.

Answers to Learning Checkpoint 2

1. c
2. Following are common characteristics of victims of domestic violence:
 - They love their partner
 - They feel guilty and may blame themselves for the violence
 - They often have low self-esteem
 - They depend emotionally and/or financially on their partner
 In addition:
 - They *are* afraid of their partner
 - They are often *isolated from* family and friends
3. d
4. Important first aid actions for a victim injured in a rape include:
 - Be sensitive to the victim's psychological trauma and provide emotional support.
 - Ensure that 9-1-1 has been called.
 - Ensure privacy for the victim.
 - Try to involve a friend or family member of the victim or at least a first aider of the same sex.
 - Give needed first aid and stay with the victim until help arrives.
 - Preserve evidence of the rape.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Meg's situation, like many behavioral emergencies, is not easy to interpret. Clearly a behavioral emergency is developing, but you may not be able to determine the cause of Meg's reaction. She may be responding to the effects of some injury or illness, or to the effects of a medication or illegal substance, or she may have an emotional or psychiatric problem.

In a behavioral emergency, like any other emergency, you should always maintain your personal safety. If Meg is potentially becoming violent, it may be important to end the meeting immediately before you or the boss is attacked.

It is important, in any behavioral emergency, to be calm and reassuring. Be empathetic and gentle, and do not challenge the person. Let Meg talk and express what she is feeling. She may be experiencing extreme anxiety or having a panic attack related to her work or personal problems. Follow the guidelines for reassuring and calming a victim. Let her know you understand her concerns. Make eye contact with her, and speak in a caring, reassuring voice, but do not give false reassurances. Do not argue with her.

When the immediate situation has been defused, and the behavioral emergency averted, the boss can then make appropriate decisions about referring Meg to an employee assistance program or other resources to help her cope with an apparent emotional problem.

Scenario for Class Discussion

You are walking across campus when you notice a student seated alone on a bench, holding his head in his hands, immobile. You recognize him from one of your classes and say hello as you walk by. He looks up, a vacant look in his eyes, but doesn't say anything. Since he is acting oddly, you stop and ask him if he feels okay. He stares at you, then holds his forehead with one hand as if feeling an intense pain. You ask if he needs help and abruptly he shouts at you, "I'm okay! Leave me alone!"

- a. Should you do anything, or just walk away?
- b. You decide to try to talk to him to see if he may be experiencing a medical problem. You take care not to seem to challenge him but to express your concern that maybe he is not feeling well and you could help him out. You follow the general guidelines for calming and reassuring any victim in a behavioral emergency.

He listens a moment, still not saying anything, then jumps to his feet and stares you in the face, scowling. His hands are bunching up in fists. What do you do?

- c. You walk away. When you look back, he is again seated and holding his head. Is there anything you can do now?

Answers to Scenario

- a. His behavior is unusual enough that you should decide he is experiencing altered mental status. At this point you may have no clue about why he is acting so strangely—he may be under the influence of a drug, he may be having a diabetic emergency, or another medical condition may be affecting his mental status. While you do have the right to simply walk away, you may decide it is more appropriate to check further to see if an emergency might be developing.
- b. Any time there is a threat of violence, your personal safety must be the highest priority. You need to withdraw from the scene. Taking care not to say anything that might provoke him, back off and walk away.
- c. Deciding whether to summon help for someone in a behavioral emergency or with altered mental status can be a difficult decision. The decision may rest on whether you think the person's behavior is truly abnormal—or whether he might simply be angry or upset about something. In this situation, his behavior does seem abnormal: he is acting very different from how you have seen him in the past, and his outburst and threatening violence is so inappropriate for the situation that you cannot help but think something serious may be wrong, since you know that several different medical emergencies can cause altered mental status and behavior like this. Therefore it may be appropriate to call the student health center and

tell them exactly what you have observed; they may then determine it appropriate to send a first responder or campus police to assess the situation. Although you may have conflicting feelings about reporting a fellow student without clear-cut evidence that he has an emergency or that he is in danger of harming himself or others, it is better not to run the risk of ignoring a situation that could be developing into a medical emergency.

Lesson 23

Pregnancy and Childbirth

Learning Checkpoint 1

- Put a check mark before the accepted guidelines for a healthy pregnancy:
 - walk at least a mile a day
 - minimize caffeine and alcohol
 - exercise to prevent weight gain
 - eliminate salt from diet
 - take dietary supplements as recommended
 - adopt a low-carbohydrate diet
- The first stage of labor begins with:
 - crowning
 - uterine contractions
 - cervical dilation
 - rupture of the amniotic sac
- Shortly before birth occurs, contractions usually occur every:
 - 30 seconds
 - 2 to 3 minutes
 - 5 to 10 minutes
 - irregularly, varying from 1 to 10 minutes

Answers to Learning Checkpoint 1

- Following are generally accepted guidelines for a healthy pregnancy:
 - minimize caffeine and alcohol
 - take dietary supplements as recommendedIn addition:
 - eat a healthy diet
 - accept normal weight gain
 - stop smoking
 - do not use illicit drugs
 - get exercise
 - rest sufficiently
 - prevent injury
- b
- b

Learning Checkpoint 2

- Describe first aid to give a pregnant woman who has heavy vaginal bleeding.
- The early signs of a possible miscarriage include:

- vaginal bleeding
 - high fever
 - altered mental status
 - all of the above
- Check off the signs and symptoms that may indicate a possible problem during pregnancy:

<input type="checkbox"/> abdominal pain	<input type="checkbox"/> persistent headache
<input type="checkbox"/> chills and fever	<input type="checkbox"/> convulsions
<input type="checkbox"/> difficulty breathing	<input type="checkbox"/> water leaking from vagina in 20 th week

Answers to Learning Checkpoint 2

- Call 9-1-1 for heavy vaginal bleeding. Calm the woman and help her into a comfortable position. Give the woman a towel or sanitary napkins to absorb the blood, but do not try to pack the vagina.
- a
- All six of the signs and symptoms listed could indicate a possible problem with the pregnancy; the woman should see her healthcare provider for any of these.

Learning Checkpoint 3

- True or False: Childbirth is a difficult process that frequently involves complications and the need for medical treatment.
- Put a check mark next to signs and symptoms that childbirth may occur soon:

<input type="checkbox"/> contractions every 10 minutes	<input type="checkbox"/> woman feels urge to push
<input type="checkbox"/> amniotic sac has ruptured	<input type="checkbox"/> infant's head is crowning
<input type="checkbox"/> cervix is starting to dilate	<input type="checkbox"/> contractions are painful
- Assisting a woman with childbirth may include:
 - helping position the woman
 - supporting the infant as it emerges from the birth canal
 - helping secretions drain from the infant's nose and mouth
 - all of the above
- List at least three things you should *not* do when assisting with childbirth.
- In a situation when the umbilical cord can be seen protruding from the birth canal before childbirth occurs, what should you do?
 - Cut the cord and wait for childbirth
 - Push the cord back inside the mother
 - Position the mother to reduce pressure on the cord
 - Pull on the cord to speed up the birth
- True or False: Some bleeding normally occurs with childbirth and delivery of the placenta.

Answers to Learning Checkpoint 3

Lesson 24

Remote Location First Aid

Learning Checkpoint 1

1. Name at least three different emergency situations in which rescue and medical help may be delayed.
2. Being prepared for emergencies in remote locations includes:
 - a. Knowing how to give first aid for an extended period
 - b. Planning how to contact EMS if needed
 - c. Having appropriate first aid supplies at hand
 - d. All of the above

Answers to Learning Checkpoint 1

1. Rescue or medical help may be delayed in emergencies in situations such as this:
 - rural areas
 - when hiking or camping in wilderness areas
 - when boating
 - during or after a natural disaster
2. d

1. False. Childbirth is a natural process that seldom involves complications or requires elaborate medical care.
2. Signs and symptoms that childbirth may occur soon include:
 - woman feels urge to push
 - amniotic sac has ruptured
 - infant's head is crowningIn addition:
 - contractions are less than 5 minutes apart
 - childbirth may occur sooner in woman who has given birth before
3. d
4. When assisting with childbirth follow these guidelines for things not to do:
 - Do not try to delay the birth by having the woman hold her legs together or any other maneuver.
 - Do not place your hands or anything else in the woman's vagina.
 - Do not interfere with the childbirth or touch the infant until the head is completely out.
 - Do not pull on the head or shoulders.
 - Do not try to wash the infant's skin, eyes, or ears.
 - Do not pull on the umbilical cord in an effort to pull out the afterbirth.
5. c
6. True. Some bleeding does normally occur with childbirth and delivery of the placenta. If bleeding does not stop soon after delivery of the placenta, massaging the abdomen may help the uterus contract and stop bleeding.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

First of all, you should relax - and help Melanie relax if she is worried. Explain to her that it is often normal for the amniotic sac to rupture before labor begins, although this may be a sign that she will begin experiencing contractions soon. Nonetheless, especially in a first-time mother, labor usually lasts at least several hours, so no urgent action is needed.

At this point you need only provide support and encouragement (and help her with dry clothing). Encourage her to follow the instructions of her healthcare provider, and to call her provider if she has any questions or concerns. Remember: in the great majority of times, labor and childbirth are natural processes that proceed without problems (and without need of medical intervention).

Learning Checkpoint 2

1. Check off important principles for planning a trip into a wilderness location:
 - Do not go alone
 - Do not go longer than 3-4 days
 - Tell someone where you are going and when you will return
 - Take more food and water than you expect to need
 - Split up the first aid kit among three or four in the group in case someone gets lost
 - Do not drink more alcohol than usual
2. True or False: When dealing with a complex emergency in a remote location, the group's leader must set the plan and resist any temptation to change it along the way.
3. Name three reasons why you should not depend on a cell phone in a wilderness location.
4. Never leave a victim alone to go for help when:
 - a. You cannot communicate your need for help
 - b. It is unlikely that someone will pass by your location
 - c. There are 3 or 4 people in the group
 - d. All of the above

Answers to Learning Checkpoint 2

1. Following are important principles for planning a trip into a wilderness location:
 - Do not go alone
 - Tell someone where you are going and when you will return
 - Take more food and water than you expect to need
 In addition:
 - Take a first aid kit equipped for the location
 - Be prepared for weather emergencies
 - Know where you are at all times
 - Do not use alcohol or other drugs
 - Study the location in advance
2. False. When dealing with a complex emergency in a remote location, the leader should be flexible, continually reassess the situation, and change the plan as needed.
3. A cell phone may have a dead battery, may not have a signal, or may stop working because of temperature extremes, moisture, or other problems.
4. c

Learning Checkpoint 3

1. What is important about first aid for bleeding in a remote location?
 - a. Control bleeding as quickly as possible
 - b. Use a tourniquet only as a last resort
 - c. A responsive victim in shock can drink water
 - d. All of the above
2. True or False: If you suspect a victim in a remote location may have a spinal injury, do not move him or her no matter how long you may have to wait for help.
3. True or False: In a remote location, the best thing to do for a victim thought to have a brain injury is to wait and see if the victim's condition improves.
4. On a cold day, a hiker in your group of four falls into an icy stream about a 3 hour walk from the car. After being pulled out, he develops the signs and symptoms of severe hypothermia. Which is the best action to take?
 - a. Immediately start hiking out - keep the person moving and he'll be okay.
 - b. Send someone to get help while rest of the group works to warm the victim.
 - c. Put the victim in a hypothermia wrap and carry him out.
 - d. None of the above.
5. Except in cases of hypothermia, drowning, and lightning strike, CPR can be stopped in a remote location if the victim does not revive within _____ minutes.

Answers to Learning Checkpoint 3

1. d

2. False: If you suspect a victim in a remote location may have a spinal injury, if it is unlikely that help will arrive soon, you should assess the victim more carefully to see if a spinal injury can be ruled out so that the victim can move.
3. False: The condition of a victim with a brain injury will not improve by itself. This is a medical emergency - call for a helicopter if possible, or if you cannot communicate the need for rescue, consider evacuating the victim if it can be done safely.
4. b. (It will be difficult to warm the victim and keep him warm while walking or being carried through a cold environment for 3 hours; with severe hypothermia he would probably not be able to walk, and three people generally cannot effectively carry someone. It is better to build an emergency shelter and warm the victim with dry clothing, extra clothing from others, warm fluids, and even the body warmth of the other hikers.)
5. 30 minutes

Learning Checkpoint 4

1. To rescue someone in deep water, what actions should you take? Number these in the order in which you should try them (from safest to least safe):
 - ___ Throw a rope or floating object to the victim
 - ___ Swim to the victim
 - ___ Reach to the victim with a stick or long object
 - ___ Go to the victim in a boat or other craft
2. In a desert or other extremely dry, hot environment, a person's daily intake of water may rise to _____ gallons.
3. Put a check mark next to the typical signs and symptoms of acute mountain sickness:

___ headache	___ cold, dry skin
___ dizziness	___ fatigue
___ diarrhea	___ nausea

Answers to Learning Checkpoint 4

1. To rescue someone in deep water, use these actions in this order (from safest to least safe):
 1. Reach to the victim with a stick or long object
 2. Throw a rope or floating object to the victim
 3. Go to the victim in a boat or other craft
 4. Swim to the victim
2. 3-5 gallons
3. The typical signs and symptoms of acute mountain sickness include:
 - headache
 - dizziness
 - fatigue
 - nausea

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

The girl in this scenario has most likely experienced a concussion from the blow to the head (review the signs and symptoms of concussion if necessary - Chapter 13). A more serious brain injury, however, would be more problematic, because she would need immediate medical attention for a potentially life-threatening condition. In the case of a serious brain injury (signs and symptoms in Chapter 13), you would face the difficult decision of whether to attempt to evacuate the victim. The sooner she receives medical care, the better her chances for survival, but moving her over difficult terrain may worsen the condition.

With a concussion, it is probably safe for her to walk out safely. Care must be taken to prevent re-injury. She should also be closely monitored for the signs and symptoms of a more serious brain injury, and if these occur, a decision may be made at that point to stop the evacuation and send someone in the group to go for help as quickly as possible.

Scenario for Class Discussion

You are one of a group of five backpackers hiking high in the mountains in October when you experience a snow squall. The group has decided to push on, thinking the snow will not accumulate much, and starts an ascent single-file up a steep narrow stretch of trail. The woman at the end of the line loses her footing in the snow and slides over the edge of a rocky embankment. She tumbles and slides down to a flat ledge.

- a. She is responsive but groggy when you reach her. She has minor bleeding in several places and a large gash across her forehead. As you begin your assessment, what condition should you be watching for?
- b. You assess her head injury and check for a spinal injury. She has very diminished sensation in her hands and feet and cannot squeeze your hand with hers. What are your first priorities for her care?
- c. Since you have established that she has a likely spinal injury, you know she needs emergency care. You are about 10 miles from the trailhead where your vehicles are parked. Although you have a cell telephone, it does not have a signal in this remote area. With four of you to help, should you try to carry her back down the trail on an improvised stretcher?

- d. After a quick discussion, your group decides that two will go for help, and two will stay with the victim. What are the priorities of each group? Think about what if any planning should be done before the two leave to go for help?
- e. The two hikers have left to summon help. What are the priorities for the two remaining with the victim? What else can they do to improve their chances for timely rescue?

Answers to Scenario

- a. As you recall from Chapter 13, you should suspect a spinal injury in any situation involving a fall or blow to the head. This victim has both. You should keep her from moving while you continue the assessment.
- b. Since she has the signs and symptoms of a spinal injury (and possible serious head injury), the first priority is to keep her from moving and worsening the injury. You place weighted padding on both sides of her head to provide support and try to make her comfortable. Monitor her breathing and care for her other injuries. Since it is cold enough to snow, help her stay warm by covering her and putting a blanket under her.
- c. No, you should not try to evacuate her, since it is very difficult to carry a victim immobilized down a steep trail. This trip would likely to worsen her injury. Your only option is to send one or two of your group to get help.
- d. Make sure that those going for help know exactly where you are located and how to lead rescuers back if necessary. Anticipate a possible helicopter rescue after help is summoned, and scout the nearby area for landmarks and a possible landing area. Plan what gear and supplies (food, water, bedding) should be left at the site and what the rescuers may need during their descent down the mountain.
- e. The highest priorities are to continue care for the victim. Since the victim should not be moved, she cannot be placed inside their tent, so shelter should be erected around her such as a lean-to or tent covering on a rope strung overhead. Since it will be several hours at least, it is important to keep her warm while monitoring her condition and giving other care. At the same time, consider the potential for other rescue contact—have sound and visual signals prepared if an airplane or another hiking party be sighted in the distance. If a potential helicopter landing site is nearby, mark it with any dark objects that will be visible against the snow. Remember that signals in three (whistles, fires, ground markings shaped as three X's) usually indicate an emergency. One hiker can stay with the victim, offering comfort and reassurance while helping keep her warm, while the other prepares for the rescue.

Lesson 25

Rescuing and Moving Victims

Learning Checkpoint 1

- a. Get everyone out and call 9-1-1
 - c. Use a fire extinguisher
 - b. Throw water on the fire immediately
 - d. Close all doors and windows
2. If you are caught in a building on fire
 - a. Stay low to the floor
 - b. Feel doors before opening them
 - c. Use stairs, not the elevator
 - d. All of the above
 3. True or False: OSHA requires fire prevention and safety guidelines in the workplace.
 4. True or False: The first action to take with a spilled dry chemical is to vacuum it up.
 5. True or False: Spilled liquids may produce poisonous fumes.
 6. You are the first on the scene where a car has crashed into a telephone pole. After you ensure the scene is safe, you approach the car and find the driver alone, slumped forward against the steering wheel unresponsive. What can you do to help?
 7. The safest order in which to attempt a water rescue is
 - a. Throw-reach-go
 - b. Go-throw-reach
 - c. Reach-throw-go
 - d. Reach-go-throw

Answers to Learning Checkpoint 1

1. a. Get everyone out. Any delay spent calling 9-1-1, using a fire extinguisher, or taking other actions could result in someone being harmed by the fire.
2. d. All the above. Stay low because there will be more oxygen near the floor; feel doors before opening them to avoid entering a fiery area; and use the stairs because a power outage caused by the fire could stall the elevator.
3. True. OSHA guidelines for fire prevention and safety apply in most workplaces.
4. False. Stay away from potentially hazardous materials; call 9-1-1 and let the professionals clean up the spill.
5. True. But since you cannot usually know if fumes from a spilled liquid are poisonous, act as if they are.
6. Support the victim's head and neck but do not move the victim unless there is an immediate threat. Give basic life support as needed.

7. c. The safest order in which to attempt a water rescue is reach-throw-go.

Learning Checkpoint 2

1. True or False: A victim with a broken arm is a 2nd priority in a multiple-victim incident.
2. True or False: Victims with life-threatening injuries are 1st priority in a multiple-victim incident.
3. You are alone at a construction site where a collapsed wall has injured four workers. Using standard triage priorities, rank these four in terms of who gets care first, second, third, and fourth:
 - _____ a. A woman with a bruised face and abrasions on her arms, who is walking around holding her bleeding forehead.
 - _____ b. A man on the ground with no apparent external injuries but who is unresponsive.
 - _____ c. A man who is not breathing, whose chest has caved in under a steel beam, and who is surrounded by a pool of blood.
 - _____ d. A man sitting up and leaning against the rubble, looking very pale, who says he feels nauseous.

Answers to Learning Checkpoint 2

1. False. A victim with only a broken arm is considered stable and can walk and is therefore a 3rd priority.
2. True. Victims with life-threatening injuries are the 1st priority.
3. Following are the ranked priorities for these four victims:
1st - B. A man on the ground with no apparent external injuries but who is unresponsive
2nd - D. A man sitting leaning against the rubble, looking very pale, who says he feels nauseous.
3rd - A. A woman with a bruised face and abrasions on her arms, who is walking around holding her bleeding forehead.
4th - C. A man who is not breathing, whose chest has caved in under a steel beam, and who is surrounded by a pool of blood.

Moving Victims

- Moving an injured victim is likely to cause further injury
- In most cases wait for professionals who have training and equipment to transport the victim
- You may have to move a victim to protect from a danger at the scene or to move a victim onto a firm, flat surface to provide CPR

Learning Checkpoint 3

1. Check situations in which you should consider moving a victim:

<input type="checkbox"/> Fire is present	<input type="checkbox"/> Bleeding victim inside a car
<input type="checkbox"/> Cold environment	<input type="checkbox"/> Strong smell of natural gas in the room
<input type="checkbox"/> Small child with severe burns	<input type="checkbox"/> The hospital is only a short drive
<input type="checkbox"/> A victim going into shock	<input type="checkbox"/> A victim is lying on top of another
2. If you have to move an unresponsive injured victim by yourself, an effective method would be:
 - a. Sling the victim over your shoulder
 - b. Roll the victim over the ground like a log
 - c. Grab both the victim's wrists and pull him or her along
 - d. Use a blanket drag to support the victim's head

Answers to Learning Checkpoint 3

1. Consider moving a victim in these situations:
 - Fire is present.
 - There is a strong smell of natural gas in the room.
 - One victim is lying on top of another.
2. d. The blanket drag is an effective way to move a victim by yourself and provide some support for the victim's head.

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Because the man is not breathing, he needs CPR. Since you cannot provide chest compressions with him in that position under the equipment, you must move him to a clear space on the floor on his back. In this situation the shoulder drag is an appropriate emergency move because you can provide some support to his head and neck between your hands and against your chest. Quickly pull him away from the equipment and start CPR.

Scenario for Class Discussion

You are in the shopping mall when you hear an explosion inside a nearby store. Windows have been broken out and you hear a scream inside. When it seems safe to enter, you go inside to see if anyone needs help. Several people have minor injuries, but three victims obviously have more serious injuries. A man lies on the floor, apparently unresponsive, with a large puddle of blood beneath his torso. A woman is sitting on the floor clutching her bleeding leg, in which you see a large shard of glass. A 10-year-old child lies on the floor farther away, apparently unresponsive but with no visible injuries.

- a. What are the first two actions you should take?

When you quickly check the three victims, you find the man is not breathing and has lost a very large amount of blood from gaping wounds in his abdomen and chest; blood is pulsing from the woman's leg wound but she remains responsive; and the child is not breathing but has no visible wounds or bleeding.

- b. What do you do now?

Answers to Scenario

- a. First, shout for someone to call 9-1-1 to get help on the way right away. Then very quickly check the three victims.
- b. The highest priority in this situation is the child, since the woman's injury is less serious and the man likely cannot be saved. While you begin to help the child, ask a bystander (or the woman herself) to control her bleeding with direct pressure around the glass shard (do not remove it). Give basic life support to the child if you are trained in CPR: open his airway, give two rescue breaths, and proceed to chest compressions.

Note: Students often find it difficult to make decisions about multiple-victim situations because of the emotions involved: they often do not want to admit a victim cannot be helped. Respect their feelings but help them understand that not everyone can be saved when injuries are very serious—you can only do what you have been trained to do.

Lesson 26

Are You Prepared?

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

The funnel cloud is a tornado, and it could reach your house with severe winds very soon. Most important, gather anyone else in the house and move to the safest place away from windows that may shatter and produce flying glass. Usually the basement is the safest location. In a house without a basement, move to a room near the center of the house away from windows and the potential for falling or wind-blown debris. (Those who live in areas where tornados are common should have a planned location in mind.)

If possible, without causing any delay, take a cell phone with you in case you need to call for help. Ideally, you already have a radio in your safe place so that you can listen for additional storm warnings and other public safety notices. Wait for the all-clear signal or announcement before coming back out.

Note: Not all this information is described in Chapter 26, which is just an overview of possible disasters. If you live in an area where tornados are common or possible, direct students to Appendix F, which contains additional information about how to be prepared for a tornado and steps to take when one may be near.

Lesson 27

Moving Forward

Chapter-Opening Scenario

After completing this chapter, have students reread the scenario that opens the chapter and describe what actions to take in this case.

Students may remember this scenario from Chapter 1. This is probably a simple first aid situation, but first aiders are more likely to encounter such situations in their everyday lives than a life-threatening situation.

Although this seems a simple situation, remind students to always follow the key principles of first aid and emergency care:

- Stay calm: take a moment if necessary to gather your thoughts and energies.
- Call 9-1-1 for all serious emergencies and whenever in doubt.
- Remember your own safety: check the scene for any dangers, and remember to protect yourself from infectious disease (even in this scenario the first aider puts on gloves).
- Act quickly: remember that in many situations it is crucial not to delay before starting care for a life-threatening emergency.
- Check the victim: first check for any immediate threat to life and care for it.
- Do no harm: do only what you have learned to do.
- Ask others for help: to call 9-1-1, bring a first aid kit or AED, or assist with first aid.