



Basic Life Support: CPR and First Aid

INSTRUCTOR GUIDE



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Basic Life Support: CPR and First Aid Provider Course

Overview

The Basic Life Support: CPR and First Aid course is designed to teach the knowledge and skills needed to provide basic life support (BLS) and cardiopulmonary resuscitation (CPR) to adult with life-threatening injuries, while also activating emergency medical services (EMS). The first-aid section teaches participants how to recognize medical emergencies and traumatic injuries and to provide care while waiting for EMS to arrive.

The individual skills are outlined for easy delivery based on the skill presentation outline from the CORE Instructor Manual. This includes skill objective, rationale and key points. Key points to be addressed during each skill are referenced in blue in the Talk Through Demonstration Skill Description and then itemized at the end of each skill to facilitate the debriefing after the skill practice.

Scenarios included in each skill are only suggestions and may be altered to more closely reflect the environment where the course is conducted and to meet the needs of course participants.

The time needed to teach the course varies and depends on many factors, including the number of students and their ability to process the educational components of the program. Instructors who want to include subjects or training beyond the course requirements may do so only before or after the course. Any additional training must not be required for completion of course requirements.

Standards and Procedures

This Instructor Guide is for instructors who are authorized to conduct the Basic Life Support: CPR and First Aid course. It is to be used in conjunction with the General Standards and Procedures section of the Instructor Manual.

This course is intended for anyone who might come in contact with divers or diving-related injuries. It is written to meet the 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.

Standards Summary

Course prerequisites: None

Age: No minimum age requirement

Note: Some countries, states and local municipalities may have minimum age stipulations.

Student-to-instructor ratio: 12:1 during skill-development sessions

Recommended classroom hours: Four to six (4-6) hours

- Review Question Discussion = 1.5-2 hours
- Skill Development (practice) = 3-4 hours

Required student materials:

- *Basic Life Support: CPR and First Aid Student Handbook*
- Oronasal resuscitation mask with oxygen inlet (one for each student)

Required instructor materials:

- *Core Instructor Manual*
- *Basic Life Support: CPR and First Aid Instructor Guide*
- *BLS: CPR and First Aid Student Handbook*
- *BLS: CPR and First Aid slate*

Required audiovisual materials:

- *Basic Life Support: CPR and First Aid Online Module*
 - To be completed by students before attending class session

Required equipment and supplies:

- Adult CPR manikin
- Nonlatex medical gloves
- Oronasal resuscitation mask or other face shield intended for ventilations
- AED trainer
- Dive accident management slate or note-taking supplies
- First-aid supplies, including dressing and bandaging materials and splints (commercial or improvised)
- Commercial tourniquet or items to improvise one (i.e., at least two triangular bandages and a couple of pencils or large, solid stick)

Final assessment:

- A minimum score of 80 percent (28 correct) on the final written assessment is required to pass.

The instructor must review with each participant any missed questions on the final assessment or any information that is unclear to ensure 100 percent understanding of the material.

Retraining required: Every 24 months

Curriculum Subject Areas and Objectives

Students participating in this course will be able to answer the following questions at the end of the knowledge-development section:

1. Basic Life Support

- What is the goal of CPR?
- Why is asking permission necessary before rendering care?
- What are the five links in the chain of survival in their proper sequence?
- What is the first step for a single rescuer once unresponsiveness has been established?
- What is the first step for a rescuer if the injured person is a child or the victim of a drowning incident?
- What can a rescuer do to deal with emotional stress?

2. Respiration and Circulation

- What is hypoxia?
- Why is oxygen necessary for life?
- Where does gas exchange occur in the body?
- What body structures comprise the respiratory system?
- What body structures are included in the cardiovascular system?

3. Scene Safety Assessment

- What is S-A-F-E?
- What are some hazards that need to be assessed before providing first aid?
- Why is exposure protection critical for rescuers?
- What are some examples of personal exposure-protection equipment?

4. Initial Assessment

- What are the three steps to the assessment sequence?
- What technique assists the rescuer in placing an unresponsive person on his back?
- What is agonal breathing?
- When should the recovery position be used?
- When should the recovery position not be used?

5. Cardiopulmonary Resuscitation

- What is the recommended rate for compressions during CPR?
- What is the recommended depth for CPR compressions on an adult?
- What is the compression/ventilation ratio?
- When is full CPR always recommended?
- What CPR protocol is to be followed for drowning victims?
- What barrier devices (exposure protection) are recommended when doing ventilations?
- How long should ventilations last?

6. Use of AEDs During CPR

- Why are AEDs recommended when they are available?
- What is the reduction in survival rate when AED use is delayed?
- What specific condition does an AED help resolve?

7. Foreign-Body Airway Obstruction

- What is the most common cause of choking in adults?
- How can a partial airway obstruction be identified?
- How should a rescuer respond to a partial airway obstruction?
- How can a complete airway obstruction be identified?
- How should a rescuer respond to a complete airway obstruction?
- What action should be taken if a choking victim becomes unconscious?
- When can a finger sweep be used?

8. Shock Management

- What is shock?
- What are some causes of shock?
- What are the signs and symptoms of shock?
- What is the first-aid treatment for shock?

9. First-Aid Assessments

- How is first aid distinguished from basic life support?
- How is level of consciousness assessed?
- What is S-A-M-P-L-E?
- What is a secondary assessment?

10. Control of External Bleeding

- What is the primary function of blood?
- What is the body's response to bleeding?
- How can the rescuer help control bleeding?
- When and how should a tourniquet be placed?

11. Bandaging and Wound Management

- What is the key role of first aid when a wound is bleeding?
- When should a bandage be applied?
- What is the purpose of a pressure bandage?
- When should impaled objects be removed?
- What is the purpose of a splint?

12. Medical Emergencies

- What is asthma?
- What are the signs and symptoms of a heart attack?
- What is hypoglycemia versus hyperglycemia?
- What is F-A-S-T?
- What is the primary first-aid response for seizures?
- What is the rescuer's primary first-aid action for poisoning victims?
- What is the preferred first aid for exertional dehydration?
- What restrictions should be observed by someone who may have suffered a concussion?
- What action provides the best chance for survival of an avulsed tooth?

13. Burns

- How are burns categorized?
- What is a superficial burn?
- What is a second-degree burn?
- What is a third-degree burn?
- What is the general first-aid treatment for burns?
- How should chemical burns be treated?

14. Temperature-Related Injuries

- What is hypothermia?
- What is the first-aid response to hypothermia?
- What special consideration must be taken into account for hypothermia?
- What is hyperthermia?
- What are four methods of heat conduction, and how can they benefit the hyperthermic individual?
- What are the signs and symptoms of heat exhaustion and heat stroke?
- What is the first-aid response to hyperthermia?

15. Lifting and Moving

- What are the general considerations for a rescuer when attempting to move an injured or ill person?
- When should an injured or ill person be moved?

16. Home Emergency Plan

- Why should you have a home emergency plan?
- Where should a home emergency plan be kept?
- What information should be included in a home emergency plan?

Provider Skill Objectives

Students who have participated in the skill-development portion of this course will be able to perform the following skills:

1. Scene Safety Assessment
 - List the steps in performing a scene safety assessment.
 - Perform a scene safety assessment in a scenario.
 - Use appropriate first-aid barrier devices in a scenario.
2. Donning and Doffing Gloves
 - Demonstrate donning gloves without tearing or compromising glove integrity.
 - Demonstrate removal of gloves without contaminating exposed skin.
3. Initial Assessment
 - Demonstrate the technique for establishing unresponsiveness.
4. Recovery Position
 - Demonstrate rolling a simulated injured or ill person from his back into the recovery position, keeping the spine aligned.
5. Chest Compressions
 - Demonstrate proper hand positioning for chest compressions.
 - Utilize proper body mechanics to accomplish chest compressions consistently to a depth of 2-2.5 inches (5-6 cm) on an adult CPR manikin at a rate of 100-120 compressions per minute.
6. Ventilations
 - Demonstrate proper ventilation technique on an adult CPR manikin.
7. Full Cardiopulmonary Resuscitation (CPR)
 - Perform two minutes of full CPR on an adult CPR manikin, completing at least five cycles of 30:2 compressions/ventilations.
8. Automated External Defibrillator (AED)
 - Follow the prompts of an automatic external defibrillator (AED) training unit to simulate care for a nonbreathing person on an adult CPR manikin.
 - Utilize an AED training unit as part of CPR on an adult CPR manikin.

9. Foreign-Body Airway Obstruction
 - Demonstrate the proper abdominal thrust technique for management of an obstructed airway in an adult
10. Shock Management
 - Demonstrate the proper technique for managing shock by placing the victim on his back or in a position of comfort and taking steps to maintain normal body temperature in a scenario.
11. Control of External Bleeding
 - Demonstrate applying direct pressure to control bleeding on a simulated injured person.
 - Demonstrate bandaging to secure a dressing in place once bleeding has stopped on a simulated injured person.
12. Applying a Tourniquet
 - Demonstrate applying a tourniquet to control bleeding on a simulated injured person.
13. F-A-S-T
 - Conduct a F-A-S-T assessment on a simulated ill person suspected of having a neurological impairment.
14. Secondary Assessment
 - Demonstrate the technique for head to foot secondary assessment using a gentle touch and caring manner.
15. Splinting
 - Apply a splint to a simulated injured limb, immobilizing the joints on either side of the injury. Use of either a professional splint or an improvised splint is acceptable.
16. History
 - Interview a person in a simulated scenario utilizing the S-A-M-P-L-E mnemonic to identify any previous medical history and determine where he might have problems or feel discomfort. Record findings in a usable format.
 - Observe on a simulated ill person if breathing is normal or if the person appears to be struggling to breathe.
17. Severe Allergic Reaction or Opioid Overdose
 - Demonstrate the proper technique for assisting with an epinephrine and/or a naloxone auto-injector in a scenario.

Skill: Scene Safety Assessment

Required Equipment:

1. Nonlatex medical gloves
2. Oronasal resuscitation mask

Objectives:

1. List the steps in performing a scene safety assessment.
2. Perform a scene safety assessment in a scenario.
3. Use appropriate first-aid barrier devices in a scenario.

Rationale:

Protecting yourself is always your first responsibility. You can't help anyone else if you are injured. You should decide if the scene is safe for you to enter and determine if there are any threats that may cause an injury/illness to you, bystanders or the individual while preparing yourself to lend assistance.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

The rescuer should go through the following steps, observing the environment and assessing the safety of the situation.

Use the mnemonic S-A-F-E to address each concern.

S – Stop.

- Stop.
- Think.
- Act.

A – Assess scene.

- Is the scene safe?
- Is it safe to approach the injured person?
- Are any other hazards present?

F – Find oxygen unit, first-aid kit and AED unit, and take them to the injured person.

- First-aid kits contain critical supplies such as barriers.

E – Ensure exposure protection.

- Use barriers such as gloves and mouth-to-mask barrier devices.

Remember S-A-F-E
S Stop <ul style="list-style-type: none">• Stop• Think• Act
A Assess the scene <ul style="list-style-type: none">• Scene safe?• Safe to approach?• Any hazards?• Additional risks?
F Find and locate the 1st aid kit (and oxygen and AED unit) <ul style="list-style-type: none">• First aid kits contain critical supplies such as barriers
E Exposure protection <ul style="list-style-type: none">• Use barriers such as gloves and mouth-to-mask barrier devices• Don gloves and inspect them for damage

Set up practice groups, and provide scenario.

You are out to sea on a fishing boat. An older male passenger complains of indigestion. He goes to lie down in his cabin. A friend goes to check on him and yells for help. You respond.

Instructor: What is the first thing you should do?

Students: Perform a scene safety assessment

Debrief skill.

Scene Safety Assessment Key Points:

1. Stop, think and then act for your personal safety as well as for the safety of others in the area.
2. Use the mnemonic S-A-F-E to remember all the steps.
 - S**top.
 - A**ssess scene.
 - F**ind oxygen unit, first-aid kit and AED unit.
 - E**nsure exposure protection.

Skill: Donning and Doffing Gloves

Required Equipment:

1. Nonlatex gloves

Objectives:

1. Demonstrate donning of gloves without tearing or compromising the glove integrity.
2. Demonstrate removal of gloves without contaminating exposed skin.

Rationale:

Protecting oneself while providing care is essential to the provider's long-term health. Provider safety does not end once care has been rendered. Exposure to bloodborne pathogens is still possible until all the cleanup and disposal has occurred.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Before donning gloves, **remove rings or other jewelry** that may puncture gloves during use.
- To doff gloves, grasp the first glove at the outside of the wrist, and pull the glove toward the fingers of that hand while pulling the first gloved hand out of the glove.
 - **Avoid touching the outside of the gloves with your unprotected hand** as you remove it, whether you can see contaminants or not.
 - **Avoid snapping off the glove.** The dual action should facilitate smooth removal.
- Turn the glove inside out.
- Use your protected hand to crumple the glove into a ball (making a fist with the gloved hand).
- When the removed glove is in the palm of the still-protected hand (fist), place an "unprotected" finger inside the second glove (between wrist and glove), and pull the glove toward the fingers as before.
- This glove will also turn inside out, and the first glove will be inside the second. **Ball the gloves together for disposal.**
- **Place the gloves in a hazardous waste bag** to avoid others having contact with the gloves. This bag can also be used for the disposal of all other infected materials after use.

Set up practice groups, and provide scenario.

You have just finished assisting an injured person with a scrape that was bleeding. You were wearing protective gloves to avoid personal contact with the blood. The bleeding has now been stopped and a bandage placed on the injury. You have finished cleaning up and are ready to remove your gloves.

Instructor: How should you remove your gloves?

Students: Remove the gloves without contaminating exposed skin.

Teaching Tip:

Place a small amount of canned shaving or whipped cream in each student's gloved hands. Ask them to spread it over their gloved hands. After they have removed their gloves, ask them to check their hands and fingertips for contamination.

Debrief skill.

Donning and Doffing Gloves Key Points:

1. Remove any jewelry that may puncture gloves, and place the items in a secure place for retrieval later.
2. Do not touch the outside of the gloves whether or not you can see contaminants.
3. Avoid snapping off the gloves. Use a smooth, dual-action motion to remove the gloves.
4. Ball up the gloves together once removed, and place them in a hazardous waste bag for disposal.

Skill: Initial Assessment

Required Equipment:

1. Nonlatex gloves

Objective:

1. Demonstrate the technique for establishing unresponsiveness.

Rationale:

Determining an individual's level of responsiveness and the presence of a pulse dictates subsequent care.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- **Remember S-A-F-E.**
 - Assess responsiveness.
 - State your name, training and desire to help.
 - **Ask permission** to help.
 - **Tap** the person on the collarbone, and **speak or shout, "Are you all right?"**
- If the person responds:
 - Have him remain where he is unless urgent evacuation is necessary to avoid further danger.
 - Try to find out what is wrong, and **activate EMS** if indicated.
 - Reassess frequently until the circumstance resolves or EMS arrives.
- If the person does not respond:
 - Shout for help; **activate EMS.**
 - Turn the individual on his back, if he's not already supine.
 - Visually **check for normal breathing.**
 - If the person is not breathing normally, send someone for help. If you are alone, leave him and alert EMS, then return and start CPR, beginning with chest compressions.

Set up practice groups, and provide scenario.

SCENARIO

When you have ensured that the scene is safe, you enter the cabin of the diver from the first scenario. What action should you take to assess the individual?

Instructor: What should you do if he does not respond?

Students: Assess for normal breathing, and have someone notify the captain.

Debrief skill.

Initial Assessment Key Points:

1. Always ask permission to assist.
2. Tap and shout to establish unresponsiveness.
3. Activate EMS.
4. Visually assess for normal breathing.

Skill: Recovery Position

Required Equipment:

1. Nonlatex gloves

Objective:

1. Demonstrate rolling a simulated injured or ill person from his back into the recovery position, keeping the spine aligned.

Rationale:

Placing an unconscious, breathing person in the recovery position maintains an open airway and prevents vomit or other body fluids from obstructing the airway. Gravity will make sure fluids leave the mouth and are not inhaled.

Do not use the recovery position if you suspect a neck, spine or pelvic injury.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- **Activate EMS** if not already done.
- Kneel beside the person, and **make sure that both of his legs are straight.**
- Place the arm nearest to you at right angles to the body, elbow bent and palm facing upward.
- **Bring the far arm across the chest, and hold the back of his hand against his cheek nearest to you.**
- Place your other hand under **the far leg just above the knee and pull the knee up**, or grab the pant leg of the person's clothing, keeping the foot on the ground.
- Holding the person's hand pressed against his cheek with your hand, **gently pull the far leg at the knee to roll him toward you** and onto his side.
- Adjust the top leg so 90-degree angles are formed at both the hip and knee.
- Tilt the head back to ensure the airway remains open.
- Adjust the hand under the cheek, if necessary, to keep the head tilted.



- Check breathing regularly, and **continuously monitor the person for any changes.**

Set up practice groups, and provide scenario.

SCENARIO

The older passenger in the previous scenario is breathing but does not respond.

Instructor: What steps should you take?

Students: Place the individual in the recovery position.

Teaching Tip:

Pairing larger students with smaller ones emphasizes the ease of this technique.

Debrief skill.

Recovery Position Key Points:

1. Straightening the limbs facilitates the necessary actions for the skill.
2. Adjust the injured person's arm and leg farthest from the rescuer into position to facilitate the body roll.
3. The rescuer should keep his hand on the injured person's hand that is on the person's cheek.
4. Gentle pressure on the knee is typically all that is required to roll the injured person into the recovery position.
5. Do not use the recovery position if you suspect neck, spine or pelvic injuries.
6. While waiting for EMS, continuously monitor the person for changes.

Skill: Chest Compressions

Required Equipment:

1. Adult CPR manikin
2. Nonlatex gloves

Objectives:

1. Demonstrate proper hand positioning for chest compressions.
2. Utilize proper body mechanics to accomplish chest compressions consistently to a depth of 2-2.5 inches (5-6 cm) on an adult CPR manikin at a rate of 100-120 compressions per minute.

Rationale:

Hand placement and depth are critical to the effectiveness of CPR. While CPR will not restart a heart, effective compressions can sustain life until advanced care is available.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Kneel by the person's side.
- Place the **heel of one hand in the center of the chest between the nipples.**
- Place the **heel of your other hand on top of the first hand.**
- Interlock the fingers of your hands, raising the fingers off the chest wall.
- Do not apply pressure over the upper abdomen or the bottom end of the sternum (breastbone).
- **Position yourself vertically above the chest**, with your arms straight and shoulders directly above the elbows.
- Using your hips as a pivot point and **using your whole body, forcefully but smoothly press down on the lower half of the sternum 2-2.5 inches (5-6 cm).**
- After each compression, release all the pressure on the chest without losing contact between your hands and the chest wall. **Repeat at a rate of 100-120 compressions per minute.**
- **Allow full chest recoil between compressions.**
 - **Do not lean on the person's chest during chest recoil.**

- Compression and release should take equal amounts of time.
- **Do not interrupt compressions for more than 10 seconds.**

Set up practice groups, and provide scenario.

SCENARIO

The older passenger in the first scenario does not respond, and he is not breathing.

Instructor: What steps should you take?

Students: Begin chest compressions.

Debrief skill.

Chest Compressions Key Points:

1. Stack your hands on top of each other in the center of the person's chest along the nipple line.
2. Use vertical pressure and your body weight to compress the chest.
3. Compressions should be 2-2.5 inches (5-6 cm) deep.
4. The rate should be 100-120 compressions per minute.
5. Allow the chest to fully recoil between compressions.
 - Do not lean on the person's chest during recoil.
6. Do not interrupt chest compressions for more than 10 seconds.

Skill: Ventilations

Required Equipment:

1. Adult CPR manikin
2. Nonlatex gloves
3. Oronasal resuscitation mask or other face shield intended for ventilations

Objective:

1. Demonstrate proper ventilation technique on an adult CPR manikin.

Rationale:

The proper ventilation technique is an integral part of full CPR.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Remain at the person's side.
- Place the face shield or resuscitation mask on the person's face using the bridge of the nose as a guide for correct positioning.
 - **If using a face shield, be sure to pinch the person's nose closed** before performing ventilations.
- **Form a tight seal with the mask** by placing your index finger and thumb of the hand closest to the top of the person's head along the upper border of the mask.
 - Use the thumb and first finger of the other hand to pinch the lower border of the mask to the chin. (Other techniques are acceptable; **avoid pressing on the soft tissue of the throat** under the chin.)
 - Keep your fingers **on the bony areas of the jaw**.
- **Tip the person's head back** so the chin is lifted into the mask and pointing up.
- Seal your lips around the **one-way valve, and blow through it**.
 - Each ventilation should last about **one second**.
 - Watch for the chest to **gently rise**.
- Take your mouth away from the mask, and **watch for the chest to fall** as the breath is exhaled (about one second).
- Deliver a second ventilation as before (about one second).

- If ventilations do not make the chest rise:
 - **Reposition the person's head** using the head-tilt, chin-lift technique, making sure the head is adequately extended to open the airway, and attempt to ventilate again.
 - **Check the person's mouth**, and remove any visible obstruction.
 - **Do not attempt more than two ventilations each time** before returning to chest compressions.

NOTE:

When in doubt, do not keep trying to ventilate. Compressions should not be interrupted for more than 10 seconds.

Set up practice groups, and provide scenario.

SCENARIO

You have completed 30 chest compressions.

Instructor: What is your next step?

Students: Deliver two ventilations.

Debrief skill.

Ventilations Key Points:

1. Secure a tight mask seal on the person's face.
 - Avoid contact with the soft tissue under the chin.
 - Keep your fingers and hands on the bony features of the person's face.
2. Open the airway by tipping back the person's head using the head-tilt, chin-lift technique.
3. Blow through the face shield or mask just enough to make the chest rise, about one second for each ventilation.
4. Allow the chest to fall between ventilations (approximately one second).
5. If ventilations do not make the chest rise:
 - Reposition the individual's head to open the airway.
 - Do not attempt more than two ventilations each time before returning to chest compressions.
6. If performing mouth-to-mouth or mouth-to-barrier-shield ventilations, pinch the person's nose closed during ventilations.

Skill: Full Cardiopulmonary Resuscitation (CPR)

Required Equipment:

1. Adult CPR manikin
2. Nonlatex gloves
3. Oronasal resuscitation mask or other face shield intended for ventilations

Objective:

1. Perform two minutes of full CPR on an adult CPR manikin, completing at least five cycles of 30:2 compressions/ventilations

Rationale:

Good-quality full CPR, along with defibrillation, provides the best chance of survival for individuals who have suffered sudden cardiac arrest.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Using the compression and ventilation techniques from the previous skills, deliver chest compressions at a rate of 100-120 per minute to a consistent depth of 2-2.5 inches (5-6 cm) followed by effective ventilations using a ratio of 30:2 for a **minimum of five cycles/two minutes**.
- **Maintain the quality** of compressions and ventilations as developed in previous skills.
- After completing the two-minute cycle, **reassess the individual** for breathing and signs of circulation. Resume CPR if indicated.

Set up practice groups, and provide scenario.

SCENARIO

You have completed two ventilations.

Instructor: What is your next step?

Students: Perform full CPR continuously using 30 compressions followed by two ventilations until you return to shore and EMS has arrived or you are relieved by another rescuer.

Teaching Tips:

- *Demonstrate two full minutes of CPR to illustrate initial care and reassessment.*
- *Since full CPR is strongly recommended for incidents involving scuba diving injuries or immersion (drowning), allow your students to practice CPR using the A-B-C protocols for immersion incidents.*

Debrief skill.**Full Cardiopulmonary Resuscitation Key Points:**

1. Perform full CPR continuously for two minutes, and then reassess the individual.
2. Maintain the quality of compressions and ventilations as performed independently.

Skill: Automated External Defibrillator (AED)

Required Equipment:

1. Adult CPR manikin
2. Nonlatex gloves
3. Oronasal resuscitation mask or other face shield intended for ventilations
4. AED trainer (Select the initial scenario to be used from the AED trainer program before beginning this skill.)

Objectives:

1. Follow the prompts of an automatic external defibrillator (AED) training unit to simulate care for a nonbreathing person on an adult CPR manikin.
2. Utilize an AED training unit as part of CPR on an adult CPR manikin.

Rationale:

Early use of defibrillators with CPR greatly increases a individual's chances of survival if the heart is in fibrillation. AEDs are the only available method to reset a fibrillating heart. Every minute that defibrillation is delayed decreases the likelihood of survival from sudden cardiac arrest 7 to 10 percent.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Remember S-A-F-E.
- If the person is unresponsive:
 - **Shout for help, or call EMS.**
- If the person is not breathing normally:
 - Send someone for an AED, or get one yourself.
 - **Do not delay CPR to wait for an AED.**
 - Perform CPR 30:2 until AED is attached.
 - **Turn on the AED, and follow the prompts.**
 - Attach the defibrillator pads to the individual's bare chest as illustrated on the pads, and plug the cord into the AED, following the prompts of the specific unit in use.
 - **Chest hair or water on the skin may need to be removed** to facilitate good pad contact.



- Place the pads on the upper right chest wall below the shoulder and on the lower left chest, extending onto the lateral surface. **Place pads according to the diagrams** with the AED unit.
 - **If switched, the pads will still work.**
- Allow the AED to analyze the heart rhythm. Do not touch the person during this analysis.
- If shock is required, follow the AED unit’s prompts.
 - Visually and physically clear the individual.
 - State: **“I’m clear, you’re clear, all clear.”**
 - **Administer shock.**
 - **Immediately resume CPR 30:2** beginning with compressions. Continue CPR for two minutes.
- **If no shock is required, resume CPR 30:2** until the person starts to breathe normally or EMS arrives.

Set up practice groups, and provide scenario.

SCENARIO

The diver you are assisting in the cabin is unresponsive, and there are no signs of breathing.

Instructor: What should you do?

Students: Perform CPR until an AED is available, and then turn on the AED and follow the prompts.

Instructor: An AED shock has been delivered to the person. What is your next step?

Students: Resume CPR after the shock, beginning with compressions for two minutes or until the AED prompts to reassess the individual.

Teaching Tips:

1. Choose a scenario from your AED trainer in advance for your role-model demonstration. Perform CPR while waiting for the AED to arrive. Demonstrate the proper use of an AED by following the unit’s prompts. Continue the demonstration for two minutes after the shock, allowing for the full cycle of care. At this time, the AED trainer should prompt a reassessment. Follow the AED scenario prompts.

- 2. Vary scenarios among the students so they are exposed to a variety of circumstances. Understanding that not all situations are identical will be helpful should the students be presented with the need to respond.*

Debrief skill.

Automated External Defibrillator Key Points:

1. Activate EMS.
2. Do not delay or interrupt CPR while waiting for an AED unit to arrive at the scene or for another rescuer to set it up.
3. Turn on the unit, and follow that unit's specific prompts.
4. Chest hair or water on the skin may need to be removed to facilitate good pad contact.
5. Pads are marked for placement. If switched, the pads will still work.
6. After the shock is delivered, resume CPR immediately, beginning with compressions.

Notes:

Skill: Foreign-Body Airway Obstruction

Required Equipment:

1. Nonlatex gloves

Objective:

1. Demonstrate proper abdominal thrust technique for management of an obstructed airway in a conscious adult.

Rationale:

A blocked airway can cause a person to lose consciousness in just a few minutes. It can also cause cardiac arrest from hypoxia as the body tissues become starved of oxygen.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- In the case of a mild airway obstruction, **encourage the choking victim to cough, but do nothing else.**
 - If the person shows signs of a severe airway obstruction and is conscious, ask permission to assist. Perform abdominal thrusts if permission is granted.
- Stand behind the person, and put both arms around the upper part of the abdomen.
 - With one hand, locate the person's navel
 - Clench your other hand into a fist, and place it just above your first hand **between the navel and bottom tip of the sternum**, with the thumb end of your fist against the choking victim's abdomen.
 - Grasp your fist with your other hand, and **pull forcefully inward and upward repeatedly.**
 - **Keep your hands off the person's rib cage.**
 - Repeat until the object is expelled or the individual loses consciousness.



- If you cannot reach around the person’s abdomen, **do a chest thrust instead.**
- If the person becomes unconscious:
 - **Lower the individual** carefully to the ground.
 - **Activate EMS.**
 - Begin CPR (chest compressions followed by ventilations).
 - Look in the mouth for the obstruction prior to giving ventilations.
 - Remove the object with a finger sweep only if it’s visible.
- Always encourage the person who was choking to **seek medical evaluation afterwards.**

Set up practice groups, and provide scenario.

SCENARIO

A co-worker has just finished his lunch. He stands up to return to his desk and tosses one more carrot into his mouth as he walks away. After taking three steps, he stops and grabs his throat and is quickly in obvious distress.

Instructor: What is your first action?

Students: Ask if he is OK, and determine if he can speak?

Instructor: If he can’t breathe, what should you do?

Students: Ask permission to help, and, if granted, perform abdominal thrusts.

Instructor: What should you do if your co-worker becomes unconscious?

Students: Assist him to the floor gently, and begin CPR.

Teaching Tips:

1. *Demonstrate abdominal thrusts on an assistant or student. DO NOT use full force but simulate force during the demonstration.*
2. *Have students practice self-rescue by using a chair to remove an airway obstruction. Have them lean over a chair from behind, placing the area between their navel and rib cage on the chair back. They should then grasp either the chair arms or seat and pull themselves into the chair back with simulated force.*

Debrief skill.

Foreign-Body Airway Obstruction Key Points:

1. Do not interfere with a person's attempts to clear his airway if he can cough, but stay ready to assist if needed.
2. Keep your hands/fist off the person's rib cage. Perform thrusts into the soft abdominal area above the navel.
3. Pull forcefully upward and backward repeatedly to assist with releasing the obstruction.
4. If you cannot reach around the person's abdomen, perform chest thrusts.
5. Assist the individual to the ground as gently as possible if he becomes unconscious, begin CPR (chest compressions), and activate EMS.
6. Encourage follow-up with a medical professional.

Notes:

Skill: Shock Management

Required Equipment:

1. Nonlatex gloves
2. Blanket or other aids to assist with controlling body temperature

Objective:

1. Demonstrate proper technique for managing shock by placing the victim on his back or in a position of comfort and taking steps to maintain normal body temperature in a scenario.

Rationale:

Shock is a life-threatening condition that may result in death unless steps are taken to reverse its effects. Maintaining an open airway, ensuring adequate breathing and circulation, and controlling bleeding are the most effective methods of preventing shock.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- Assess scene safety.
- **Activate EMS.**
- Control external bleeding if present.
- Provide comfort and reassurance.
- Place the individual in a **position of comfort or on his back.**
 - **Do not force a person to lie down** (especially with a heart condition or breathing problem).
 - Consider elevating legs 6-12 inches if no neck, spine or pelvic injuries are suspected.
- **Maintain normal body temperature** by adjusting body coverings.
- **Do not give anything by mouth.**
- Monitor the **level of responsiveness.**

Set up practice groups, and provide scenario.

SCENARIO

While you were hiking with a friend, he fell and cut his arm. The bleeding has stopped, but he now looks pale, and his skin is cool and clammy.

Instructor: What is the next step for providing first aid?

Students: Monitor the individual for shock. Take preventive steps.

Instructor: Should you provide any food or drinks?

Students: No.

Debrief skill.

Shock Management Key Points:

1. Activate EMS.
2. Place the person on his back or in a position of comfort.
 - Do not force a person (especially with a heart or breathing problem) to lie down.
3. Monitor the individual for thermal control, and adjust body coverings as indicated.
4. Do not give anything by mouth.
5. Continuously monitor the level of consciousness.

Skill: Control of External Bleeding

Required Equipment:

1. Nonlatex gloves
2. Gauze dressings or pads, bandages, tape

Objectives:

1. Demonstrate applying direct pressure to control bleeding on a simulated injured person.
2. Demonstrate bandaging to secure a dressing in place once bleeding has stopped on a simulated injured person.

Rationale:

Direct pressure successfully controls most external bleeding. Uncontrolled external bleeding reduces the amount of blood circulating throughout the body and could result in shock, which is caused by a lack of oxygen to the body's vital organs due to inadequate blood volume. The ability to control external bleeding may reduce the risk of shock and is potentially a life-saving skill. Once bleeding has stopped, bandage the dressings in place to avoid disruption of the clotting mechanism.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

To control bleeding:

- **Cover the wound completely** with a sterile or clean dressing, and **apply direct pressure** with your gloved hand until the bleeding stops.
 - **Use additional layers of dressing material** if the dressing becomes soaked.
 - **Do not remove any layers of dressing materials** because it may disrupt the clotting mechanism of the body.
- Once bleeding has stopped, use conforming bandage, roller gauze or tape to **secure the dressing**, and make sure there aren't any loose edges. **Bandage extremities by wrapping toward the heart.**
- **Remove all jewelry or constricting clothing** on the injured appendage.



- Be careful not to interfere with circulation.
 - **Check capillary refill on appendage nail beds** to ensure adequate circulation.
 - Ask the individual if any tingling or numbness is present.
 - **Adjust bandage if necessary to ensure circulation.**
- Monitor the person's pulse and motor function distal to the bandage before and after bandage application.
- Bandage small wounds several inches on either side to ensure coverage and even pressure distribution.
- To bandage across a joint, apply the bandage in a comfortable position.
- Keep the joint immobilized after bandage application. Splint the injury only if EMS will be delayed (see later skill).

Set up practice groups, and provide scenario.

SCENARIO

While you and a buddy were hiking, he tripped over a root and fell. He has scraped his leg badly, and his arm is bleeding profusely.

Instructor: How should you manage the wounds?

Students: Apply a dressing, and bandage it in place.

Teaching Tip:

Unrolling a bandage with the roll on top instead of underneath will help keep the roll under control and minimizes the risk of dropping it.

Debrief skill.

Control of External Bleeding Key Points:

1. Dressings should completely cover bleeding wounds.
2. Use direct pressure to stop bleeding.
3. Apply additional layers of dressing material (gauze) if the dressing becomes soaked. Do not remove soaked dressing.
4. Bandage dressings in place once bleeding has stopped.
5. Wrap extremity bandages toward the heart.
6. Remove jewelry or constricting clothing.
7. Check capillary refill to ensure bandaging is not too tight. Adjust bandage if necessary.

Skill: Applying a Tourniquet

Required Equipment:

1. Commercial tourniquet (preferred) or materials for an improvised one

Objective:

1. Demonstrate applying a tourniquet to control bleeding on a simulated injured person.

Rationale:

Severe, life-threatening bleeding from extremities may require bleeding-control measures beyond direct pressure and cold therapy. For these kinds of injuries, application of a tourniquet may save a life. Major arterial bleeding from an extremity may require quick and immediate tourniquet application.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- **Activate EMS.**
- Inspect the wound to **ensure direct pressure was being applied directly to the site of the bleeding**. If not, attempt direct pressure once more.
- Place the tourniquet **1-2 inches (2.5-5 cm) proximal to the wound** with the windlass over the bleeding artery.
- Secure the tourniquet.
- Turn the windlass device to stop bleeding.

CRITICAL NOTE:

When applying a tourniquet as part of skill practice for course requirements, the tourniquet should not be tightened to the point the distal pulse disappears. Advise students that tourniquets are painful when placed appropriately, but it will be released promptly. It may also cause temporary bruising.

For safety and to prevent localized injury, do not tighten a tourniquet during practice beyond the point your practice partner starts to feel changes in sensation.

In an actual emergency, tighten the windlass until bleeding stops and/or the distal pulse disappears.

- **Verify absence of pulse in the distal portion** of the extremity.
- **Secure the windlass.**
- **Note on the injured person's forehead a T or TK** (to indicate the use of a tourniquet) and **time of placement.**
- **Monitor bleeding**, and **tighten the tourniquet if necessary** as blood vessels relax.
- **Leave a tourniquet used in an actual injury in place** until the injured person is under medical care.
- **Tell the individual that the tourniquet will be painful**, but it is being used as a life-saving measure.
 - **Provide verbal support.**

Set up practice groups, and provide scenario.

SCENARIO

(Continued from the previous scenario)

The bleeding on your friend's arm is not responding to direct pressure, and you have verified you are using pressure directly over the wound.

Instructor: What is the next step?

Students: Apply a tourniquet, and immediately seek medical assistance.

Teaching Tip:

Use of dressings impregnated with hemostatic agents may be required in some cases.

Applying an improvised tourniquet:

- Fold a triangular bandage so it is 2 inches wide.
- Wrap the folded bandage around the limb, and tie an overhand knot.
- Place a stick (pencil, dowel, or similar object) over the knot, and tie a second overhand knot on top of the stick.
- Turn the stick to tighten the tourniquet.
- Secure it with a second bandage so it does not come loose.

Debrief skill.

Applying a Tourniquet Key Points:

1. Activate EMS.
2. Verify direct pressure was being applied over the wound.
3. If so, then apply tourniquet 1-2 inches (2.5-5 cm) above the wound.
4. Verify absence of distal pulse and/or stoppage of bleeding.
5. After tightening the windlass, secure it so it will not come loose.
6. Note on the injured person's forehead a T or TK and the time the tourniquet was applied.
7. Monitor the injury site, and tighten the tourniquet if needed as blood vessels relax.
8. Leave a tourniquet in place until the injured person is under advanced medical care.
9. Provide verbal support to the injured person.

Notes:

Skill: F-A-S-T Assessment

Required Equipment:

1. Chair for the simulated ill person

Objective:

1. Conduct a F-A-S-T assessment on a simulated ill person suspected of having a neurological impairment.

Rationale:

Strokes happen suddenly and without warning. Recognizing a stroke and immediately getting the ill person into emergency care decreases the chances of long-term injury.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

Have the person remain seated during the assessment.

- F** Ask the individual to smile, and observe his face for **asymmetry**. Is one side drooping? Is the smile equal on both sides?
- A** Ask the person to extend and raise both arms straight out in front. Can the individual **raise both arms**? If so, do both arms remain up, or does one drift down?
- S** Ask the person to repeat a simple phrase. **Are all the words clear**? Is there any slurring? Is the speech garbled?
- T** If any abnormal signs are present, **call 911 or your local EMS** number immediately. **Time is of the essence.**

F	Facial droop
A	Arm weakness
S	Speech difficulty, Sudden Severe headache
T	Time (note the time and call EMS immediately)

Set up practice groups, and provide scenario.

SCENARIO

You and a family member are setting the table for a large family dinner. You hear tableware drop, and you look up to see a confused, vacant look on your relative's face. When you ask what happened and if he is OK, he cannot answer.

Instructor: What should you do?

Students: Conduct a F-A-S-T assessment.

Debrief skill.

F-A-S-T Assessment Key Points:

Face: Look for symmetry

Arms: Can the person hold up both arms equally?

Speech: Is speech clear or impaired?

Time: Call 911 immediately if signs of impairment are present.

Skill: Secondary Assessment

Required Equipment:

1. Pencil and paper or accident management slate

Objectives:

1. Demonstrate the technique for head to foot secondary assessment using a gentle touch and caring manner.

Rationale:

When an individual has been injured or is ill, they may not be able to readily identify where problems may be located. By talking to the individual and doing area specific exams, potential problems can be identified and appropriate treatment sought.

Conduct Real Time Demonstration.

Teaching Tip:

Since an additional person is required for this skill, discuss with them in advance how this skill is to be presented and establish some guidelines for the simulation.

Talk Through Demonstration Skill Description:

- Remember to be **S-A-F-E**. Activate EMS if indicated.
- **Ask permission** to conduct an assessment.
- Perform a secondary assessment **only on an injured person who is conscious and can respond**.
- Use your eyes and hands to find any abnormalities or possible problems. **Be systematic** in the assessment to avoid missing any areas.
- **Use a gentle touch** because injuries can be quite painful.
 - **If the individual experiences pain, stop the assessment, and call EMS.**
- Start at the person's head, and look for signs of injury or blood. Note any areas that cause pain or are uncomfortable to the individual. Gently palpate (touch) the entire scalp and face.
 - Watch for any fluids or blood.
- Visually inspect the person's nose and ears for blood or fluid.



- Palpate the person's neck. The mechanism of injury will give you a good idea about whether a head or neck injury is likely.
- Shade the person's eyes from the sun or lights, then remove your hands while observing the pupils for reaction to the changing light exposure. Do this one eye at a time to see if the eyes dilate in response to the shade.
- If the injury is related to scuba diving, gently palpate the front of the neck for air bubbles and a crackling sound coming from underneath the skin. This would indicate subcutaneous emphysema, which is caused by air bubbles escaping from the lungs and chest cavity.



This can be an indication of a lung-overexpansion injury.



- Inspect the person's collarbone for injuries or discoloration. Gently slide the fingertips of your index and middle fingers along each collarbone individually to check for movement or reaction to your examination.
- Examine the chest by placing both hands on either side of the rib cage, and ask the individual to take a deep breath. Note any open wounds. If you see bubbling, apply direct pressure to the wound to stop air from moving in and out.
- Divide the abdomen into four quadrants using the navel as the center point. Gently press on each quadrant in turn, and note any areas that are sensitive, stiffened, hard or painful.
- Place a hand on either side of the individual's pelvis, and gently push straight down and then in from both sides. Note any instability or painful responses.



- Secure wrist/ankle on each limb then palpate the arms and legs individually, gently squeezing to feel if bones beneath the skin and muscle are displaced. Ask the person to wiggle his fingers and toes.
- **Record findings in a usable manner.**



Set up practice groups, and provide scenario.

SCENARIO

Your hiking companion tripped on a tree root and fell down an embankment. She is conscious but doesn't feel well and hurts all over.

Instructor: What action should be taken?

Students: Do a secondary assessment.

Debrief skill.

Secondary Assessment Key Points:

1. Perform a secondary assessment only on individuals who can respond with feedback to your touch and/or inquiries.
2. Be systematic in your assessment to avoid missing any areas.
3. Use a gentle touch when applying pressure because injuries can be quite painful.
4. If the person experiences pain, stop the assessment.
5. Record your findings in an organized manner so they can be referred to later if necessary.

Notes:

Skill: Splinting

Required Equipment:

1. Nonlatex gloves
2. Dressing and bandaging materials
3. Various splints (commercial or improvised)
4. Elastic bandages

Objective:

1. Apply a splint to a simulated injured limb, immobilizing the joints on either side of the injury. Use of either a professional splint or improvised splint is acceptable.

Rationale:

In some settings where EMS is more than 10 minutes away, you may find it helpful to splint a limb to prevent further injury while waiting for the injured person to be moved to emergency medical care.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- **Preform the splint to adapt it to the injured area.** Shaping it during placement may be painful to the injured person.
- Apply a splint, keeping the injured limb in the position it was found. Do not attempt to straighten it.
- Place splinting material either along or on each side of the injured limb.
- Place the splint so the **joints both above and below the site of the injury are immobilized.**
- **Use padding** (gauze, towels, clothing, etc.) **to fill in voids under the splint** and provide additional support to the injured limb.
- **Check for adequate circulation** by pressing the nail beds with enough gentle pressure to cause them to blanch, then observe capillary refill. Adjust bandaging if necessary to ensure adequate circulation.



- Remove jewelry or constricting clothing on the injured appendage.
- Continually reassess the injured person and monitor for signs of shock.
- Activate EMS if not already done.

Set up practice groups, and provide scenario.

SCENARIO

Your assessment following your hiking buddy's tumble has revealed pain and distortion in her lower leg. It is swelling, and she can't move it. You are quite a distance from the exit point back to civilization and EMS assistance.

Instructor: How should you handle the injury?

Students: Apply splint and padding to the injured site for comfort and to aid with restricting movement.

Debrief skill.

Splinting Key Points:

1. Adjust and form splint material to fit the injured site before applying it.
2. Be sure joints above and below the injury are immobilized.
3. Pad the injured site for comfort and to minimize movement.
4. Monitor circulation of any involved extremities, and monitor the injured person for shock.

Skill: History

Required Equipment:

1. Pencil and paper or accident management slate

Objective:

1. Interview a person in a simulated scenario utilizing the S-A-M-P-L-E mnemonic to identify any previous medical history and determine where he might have problems or feel discomfort. Record findings in a usable format.
2. Observe on a simulated ill person if breathing is normal or if the individual appears to be struggling to breathe.

Rationale:

Once emergency care has been administered, understanding an ill or injured person's history can be useful in identifying any preexisting conditions that may confuse findings. Getting baseline information may assist in determining the extent of the injury or illness and if changes are occurring while awaiting for advanced care.

Conduct Real Time Demonstration.

Teaching Tip:

Since an additional person is required for this skill, discuss with them in advance how this skill is to be presented and establish some guidelines for the simulation.

Talk Through Demonstration Skill Description:

- Interview an ill or injured person by **using the S-A-M-P-L-E mnemonic** and **open-ended questions** to gather the following information:

- **S**igns/symptoms

- **A**llergies

- **M**edications

- **P**ertinent medical history

- **L**ast oral intake

- **E**vents leading up to the current situation

- While talking to the individual, **observe his skin color for flushing or paleness. Note the effort he is making to breathe.** Is it relaxed and easy, or is he struggling?

- **Record his answers and your observations** in a usable manner for use by EMS or other health-care providers.

Set up practice groups, and provide scenario.

SCENARIO

A family member at a gathering suddenly is not feeling well. There is no indication of injury or illness. His complaints are not specific, so you are not sure how to respond.

Instructor: What can you do to determine if assistance should be called?

Students: Interview the person utilizing S-A-M-P-L-E, and take vital signs.

Teaching Tip:

If using an assistant, discuss with him in advance how this skill demonstration will be conducted, and develop the scenario details.

Debrief skill.

History Key Points:

1. The mnemonic S-A-M-P-L-E aids in remembering what information to gather.
 - Ask open-ended questions to avoid leading the person to give answers that may not reflect his actual condition.
2. Observe the individual's coloring and efforts to breathe. Note anything that appears abnormal.
3. Record your findings in an organized manner so they can be referred to later, possibly by health-care providers.

Skill: Severe Allergic Reaction or Opioid Overdose

Required Equipment:

1. Epinephrine or naloxone auto-injector trainer

Objective:

1. Demonstrate the proper technique for assisting with an epinephrine and/or a naloxone auto-injector in a scenario.

Rationale:

Some individuals experience extreme reactions to specific exposures, such as to bee stings or certain foods. The speed of the reaction may inhibit the individual's ability to respond on his own. Assistance from another individual may be necessary. Opioid overdoses also lead to impairment and often require assistance from another person.

Conduct Real Time Demonstration.

Talk Through Demonstration Skill Description:

- **Activate EMS.**
- Ensure airway and breathing.
- **Assist the individual only if he is unable to administer the medication himself.**
 - Epinephrine should be administered only if it is prescribed for the individual having the reaction.
 - A prescription is not necessary to administer naloxone in most states.
- Take the auto-injector from its case, and remove the protective cap. Follow the prompts provided by the unit.
- Grasp the epinephrine auto-injector in the palm of your hand, and **keep your fingers and thumb from covering either end.**
- With either auto-injector, use a firm grasp, and jab the indicated end against the mid-thigh of the individual experiencing the reaction.
- **Hold the injector in place for at least 10 seconds.**
- Massage the area where the injection was administered to assist with dispersion of medication.
- **Note the time** the medicine was administered.
- Return the auto-injector to its case, and **give it to EMS personnel when they arrive.**

- Monitor the individual's response; administer a second dose if indicated and available.

Set up practice groups, and provide scenario.

SCENARIO

Your dive group is out for dinner one evening after a full day of diving. One of the diners suddenly starts itching and complaining of irritated eyes and fullness in his throat. He has shared earlier that he is allergic to shellfish. The dish he ordered has a clam sauce, which he overlooked on the menu.

Instructor: What is your immediate response?

Students: Ask if he carries anything to take for allergic reactions. If so, secure it, and assist in administering it if necessary.

Debrief skill.

Severe Allergic Reaction or Opioid Overdose Key Points:

1. Activate EMS.
2. Assist the individual only if he is unable to administer the medication himself.
3. Avoid covering either end of the epinephrine auto-injector with your fingers or thumb.
4. Hold the injector in place for at least 10 seconds to ensure full administration of the medication.
5. Note the time of administration.
6. Give the used auto-injector to medical personnel when advanced care arrives.

Skill: Combined Scenarios

(Complete at least one scenario.)

Required Equipment (will vary with the scenario implemented):

1. Nonlatex gloves
2. Oronasal resuscitation mask
3. First-aid supplies, including splint material

Objective:

1. Provide care to a person with life-threatening injuries using several BLS skills learned during this BLS: CPR and First Aid course.

Rationale:

An injured person could go into shock and even stop breathing. In this case, the rescuer will need to use a combination of the first-aid techniques learned during the previous skills sections.

Set up practice groups, and provide a scenario.

During dinner with friends at a restaurant, one friend grabs his neck and is unable to cough effectively. There is a phone next to the cash register, and a first-aid kit is in the kitchen.

Instructor: What action should you take?

Student: Provide care for severe airway obstruction (abdominal thrusts).

Instructor: After giving abdominal thrusts, your friend loses consciousness.

Student: Assist him to the floor, place him on his back, and give chest compressions.

Instructor: A piece of food comes out of his mouth, but your friend is not responding. Normal breathing is present, however.

Student: Place my friend in the recovery position.

Instructor's post-scenario review:

- Ask the students when and how EMS was called.
- Did someone ask for a first-aid kit?
- Were barriers asked for or used?
- What if the person stopped breathing?

SCENARIO

You and two friends are in your garden. Your neighbor is cleaning his window from a ladder when he suddenly slips and falls forward against the window, breaking it. The glass cuts the neighbor under his arm. Blood is spurting out of the wound. You have a cellular phone, and you have a first-aid kit in your kitchen.

Instructor: What do you do first?

Student: Perform a scene safety assessment. Watch out for the glass, and ask a friend to call EMS and to bring the first-aid kit.

Instructor: The first-aid kit arrives.

Student: Don gloves, and provide care for external bleeding.

Instructor: When bandaging the wound, you notice that blood soaks through the dressing.

Student: Add another dressing, and continue using direct pressure. Bandage the dressings in place when bleeding has stopped.

Instructor: Your neighbor's skin is pale, cold and clammy, and he is breathing shallow and rapidly. He seems restless.

Student: Treat for shock.

Instructor: Your neighbor asks for some water.

Student: Do not give him any fluids.

Instructor: Your neighbor loses consciousness. He is unresponsive but still breathing.

Student: Place him in the recovery position. Continue to monitor until EMS arrives.

Instructor's post-scenario review:

- Discuss the position in which you should place the injured person.
- Ask the students what they would say to the EMS personnel.

SCENARIO

During your holiday, you are with your family at the hotel's swimming pool when a 50-year-old male exits the pool and starts complaining about pain in his chest. He is sweating heavily. When he tries to sit down, he suddenly drops on the ground. The hotel has a first-aid kit and AED in the reception area, and the closest phone is in the restaurant of the hotel.

Instructor: What do you do first?

Student: Perform a scene safety assessment, and check the collapsed person's responsiveness.

Instructor: He is not responsive and does not appear to be breathing.

Student: Ask a bystander to call EMS and to bring you the AED. Start CPR.

Instructor's post-scenario review:

- What was done during the scene safety assessment?
- Were barriers utilized?
- Is the rescuer trained in the use of an AED?
- Discuss with students the importance of the AED.
- Is it possible to use an AED in a wet environment?
- Which phone did you use? Could a cellular phone have been present?

Home Emergency Plan

When you recognize that an emergency exists, dial:

_____ (Write your area's EMS number above.)

The EMS dispatcher will ask you: “What is the emergency?”

Stay on the line, keep calm, and follow instructions.

Your street address:

Your phone number:

If possible, send someone outside to meet emergency personnel.

Additional Information

National Poison Control Center

Contact: _____

Family doctor

Name: _____

Contact: _____

Neighbor

Name: _____

Contact: _____

Family member

Name: _____

Contact: _____

Notes:

Final Assessment

The following questions have only one correct answer unless otherwise indicated.

1. What is the first link in the chain of survival?
 - a. rapid initiation of CPR
 - b. rapid activation of EMS
 - c. post-cardiac-arrest care
 - d. advanced life support
2. The mnemonic S-A-F-E is used to
 - a. protect the rescuer from injury or impairment
 - b. assist with assessing circumstances surrounding the injured person
 - c. remind the rescuer of important equipment and supplies
 - d. all of the above
3. Personal safety is your number one priority when providing care. What are possible concerns?
 - a. traffic at the scene of a collision
 - b. animals
 - c. toxic gas, such as carbon monoxide
 - d. all of the above
4. Personal protective equipment, which can help prevent infection while providing care, includes
 - a. gloves
 - b. mask or face shield for CPR
 - c. resuscitation mask
 - d. all of the above
5. The goal of CPR is to maintain adequate circulation of oxygenated blood to vital organs.
 - a. True
 - b. False
6. Chest compressions temporarily take over the function of the heart.
 - a. True
 - b. False
7. What is the most effective way to open the airway for ventilations?
 - a. Keep the head still and open the mouth.
 - b. Tilt back the head while lifting the chin.
 - c. Tilt back the head while flexing the neck with your hand.
 - d. They all work just fine.

8. Ventilations should be given for about _____ second(s) using a _____ breath to make the chest rise.
 - a. 2, deep
 - b. 1, normal
 - c. 1, deep
 - d. 2, normal
9. Compression-to-ventilation ratio in single-rescuer CPR is 30:2. What is the rate per minute for chest compressions?
 - a. as fast as you can push
 - b. 100-120
 - c. 70-80
 - d. 180-200
10. Chest compressions should be delivered to a depth of
 - a. 1-1.5 inches (3 cm)
 - b. 2-2.5 inches (5-6 cm)
 - c. 3-4.5 inches (7.5-11 cm)
 - d. Depth is not important as long as compressions are being done.
11. The chance of survival in cardiac arrest can decrease by _____ for each minute defibrillation is not available.
 - a. 40-50%
 - b. 30-35%
 - c. 7-10%
 - d. 15-20%
12. In a situation in which CPR is ongoing and an AED becomes available after four minutes of care, when should you use the AED?
 - a. Immediately apply the pads and follow the AED prompts.
 - b. Continue with CPR until the two-minute cycle is complete, then use the AED.
 - c. Wait a little while to see if CPR alone is sufficient.
 - d. There is no point. It has been too long.
13. You must use an AED, and it advises to deliver a shock. Which is the most appropriate next step after pressing the shock button?
 - a. Turn off the AED so it will not interfere with CPR.
 - b. Check for breathing.
 - c. Resume CPR, beginning with compressions.
 - d. Place the individual in the recovery position.
14. Place an injured, unresponsive but breathing person in what position?
 - a. supine (on his back)
 - b. sitting up (on the floor or in a chair)
 - c. recovery position (on his side)
 - d. prone (on his stomach)

15. With drowning victims, what should you do if you are alone?
 - a. Perform CPR using the A-B-C protocol for two minutes, then call EMS.
 - b. Call EMS, then wait for their arrival.
 - c. Use the same protocols as with any unresponsive person.
 - d. Perform CPR for one minute, then reassess the person.
16. If a choking victim loses consciousness you should
 - a. begin CPR
 - b. activate EMS if not already done
 - c. try to remove objects you cannot see from the individual's throat
 - d. a and b only
17. What are some differences between a mild and severe airway obstruction in choking?
 - a. Mild obstruction means the person can effectively cough and should be encouraged to do so.
 - b. Severe obstruction means the person cannot effectively cough or speak, and first-aid intervention must be provided.
 - c. It does not matter if the choking is mild or severe.
 - d. a and b only
18. Most external bleeding can be controlled by using what technique?
 - a. direct pressure
 - b. pressure points
 - c. tourniquet application
 - d. raising the affected area above the injured person's head
19. Which statement best describes shock?
 - a. life-threatening condition
 - b. inadequate circulation/oxygenation to the tissues
 - c. an emergency requiring immediate first aid
 - d. all of the above
20. Which is not a common sign/symptom of shock?
 - a. cool, sweaty skin
 - b. rapid and weak pulse
 - c. weakness or feeling faint
 - d. hyperactivity
21. What is not part of a secondary assessment?
 - a. S-A-M-P-L-E
 - b. head to toe physical exam
 - c. ongoing assessment, including any changes to initial assessment
 - d. moving the person to a more comfortable location

22. When splinting a possible fracture or dislocation, you should
 - a. manipulate the injury site to a normal position
 - b. apply a very tight-fitting splint so no movement is possible
 - c. apply the splint in the position the limb was found and only if medical care is not readily available
 - d. apply heat packs, and then splint on top of them
23. What is the best way to handle impaled objects?
 - a. Cut off object, remove, and apply stitches.
 - b. Secure them in place to prevent further harm.
 - c. Remove the object to prevent internal bleeding.
 - d. Remove the object, and immediately apply direct pressure to control bleeding.
24. Splints should be applied so they
 - a. restrict movement of the joints above and below the injury
 - b. restrict the circulation of blood to the affected limb
 - c. amputate the injured limb
 - d. do not need padding for comfort around the site of the injury
25. An individual who has suffered a simple asthma attack that was well controlled by the person's own rescue inhaler should always be seen by EMS.
 - a. True
 - b. False
26. It is important to place something in the mouth of a person having a seizure so he does not bite his tongue and cause bleeding.
 - a. True
 - b. False
27. If a person known to have diabetes begins behaving abnormally and slurs his speech, what should you do first?
 - a. Give him a shot of insulin.
 - b. Initiate immediate CPR.
 - c. Have him check his blood sugar with a glucometer.
 - d. Force him to drink a large amount of diet cola.
28. A person who is having a seizure should be restrained so he will not hurt himself.
 - a. True
 - b. False
29. In the case of suspected poisoning, the rescuer should
 - a. induce vomiting
 - b. attempt to find out what was taken and how much
 - c. call EMS, and seek prompt medical evaluation
 - d. b and c

30. Treatment for burns includes
 - a. removing the source of the burn
 - b. flushing the area with cool water
 - c. applying ointment or antiseptics
 - d. a and b
31. Heat stroke requires
 - a. cool drinks and rest
 - b. aggressive intervention and cooling
 - c. lots of water with salt mixed in
 - d. moving the person to an air-conditioned room and see how he does
32. An individual who has become severely hypothermic is at risk for cardiac arrest if not handled gently.
 - a. True
 - b. False
33. Injured persons should not be moved unless there is a threat of further harm to themselves or the rescuers.
 - a. True
 - b. False
34. A home emergency plan
 - a. can be a vital resource in an emergency
 - b. should provide critical emergency phone numbers
 - c. should be in a readily accessible place
 - d. all of the above
35. CPR and first-aid training should be refreshed regularly to ensure your ability to respond in an emergency.
 - a. True
 - b. False

Notes:

Basic Life Support: CPR and First Aid Answer Sheet

The final assessment may be administered in written or oral form. The instructor must review every question with each student to ensure 100 percent comprehension of the materials. Questions have only one correct answer.

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25	T	<input type="checkbox"/>	F	<input type="checkbox"/>	32	T	<input type="checkbox"/>	F	<input type="checkbox"/>
5	T	<input type="checkbox"/>	F	<input type="checkbox"/>	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26	T	<input type="checkbox"/>	F	<input type="checkbox"/>	33	T	<input type="checkbox"/>	F	<input type="checkbox"/>
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I have reviewed this assessment with the course instructor, and I understand the correct response as indicated by my initials. Any questions regarding this assessment and the contents of this course have been answered to my satisfaction.

Student Signature

Date

Practical Evaluation Record

Basic Life Support: CPR and First Aid

(The instructor will retain the answer sheet and Practical Evaluation Record for seven years.)

Student Name _____

Provider Skills Development	Instructor Initials	Student Initials
• Scene Safety Assessment	_____	_____
• Donning and Doffing Gloves	_____	_____
• Initial Assessment	_____	_____
• Recovery Position	_____	_____
• Chest Compressions	_____	_____
• Ventilations	_____	_____
• Full CPR	_____	_____
• Automated External Defibrillator	_____	_____
• Foreign-Body Airway Obstruction	_____	_____
• Shock Management	_____	_____
• Control of External Bleeding	_____	_____
• Applying a Tourniquet	_____	_____
• F-A-S-T Assessment	_____	_____
• Secondary Assessment	_____	_____
• Splinting	_____	_____
• History	_____	_____
• Allergic Reaction or Opioid Overdose	_____	_____

I am comfortable with my skills performance as a Basic Life Support: CPR and First Aid provider.

I have reviewed these skills with the course instructor. Any questions regarding the execution of these skills and the contents of this course have been answered to my satisfaction as indicated by my initials.

Student Signature _____ Date _____

Basic Life Support: CPR and First Aid Answer Key

The final assessment may be administered in written or oral form. The instructor must review every question with each student to ensure 100 percent comprehension of the materials. Questions have only one correct answer.

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Quick Reference Chart

1. Student completion of *Basic Life Support: CPR and First Aid* online module before attending class.
2. Introductions and Registration (if not completed previously)
 - a. Course registration forms
 - b. Statement of Understanding
3. Review Question Discussion
4. Skills Development Session
 - a. Scene Safety Assessment
 - b. Donning and Doffing Gloves
 - c. Initial Assessment
 - d. Recovery Position
 - e. Chest Compressions
 - f. Ventilations
 - g. Full Cardiopulmonary Resuscitation
 - h. Automated External Defibrillator
 - i. Foreign-Body Airway Obstruction
 - j. Shock Management
 - k. Control of External Bleeding
 - l. Applying a Tourniquet
 - m. F-A-S-T Assessment
 - n. Secondary Assessment
 - o. Splinting
 - p. History
 - q. Severe Allergic Reaction or Opioid Overdose
 - r. Home Emergency Plan
5. Final Assessment and Review
7. Approve successful course participants via the eLearning platform under *My Students*.
8. Remind students to download their completion card through their eLearning account when they receive their email notification and to complete the online feedback survey (link included in email).

8. Provide additional time for knowledge and skill remediation for individuals who require additional practice.

