



**MEDIC**  
**First Aid**

**AMERICAN SAFETY &**  
**HEALTH INSTITUTE**



**SAMPLE INTERNAL USE ONLY**

# **PEDIATRIC FIRST AID | CPR AED**

instructor guide  
Ver. 9.0, 2022

# TABLE OF CONTENTS

<b>About This Instructor Manual</b> .....	<b>3</b>	Blended Learning with In-Person, Instructor-Led Skills Session .....	21
Keywords and Definitions .....	4	Remote Skills Verification (RSV) .....	21
<b>Universal Concepts</b> .....	<b>7</b>	Before Teaching a Class .....	22
New Procedures for Pediatric First Aid   CPR AED .....	8	Quality Assurance .....	22
Prevention .....	9	Preparing for Class .....	22
Infection Control .....	9	Using the Class Presentations .....	22
High-Quality Cardiopulmonary Resuscitation .....	10	Student Hands-On Practice Methods .....	23
First Aid, CPR, and AED Continuum .....	10	Evaluation .....	25
Constructive Feedback .....	11	Remediation .....	36
Contextual Learning .....	11	After the Class .....	37
Deliberate Practice and Mastery Learning .....	11	Documentation and Record Keeping .....	37
Distributive or Spaced Practice .....	12	At-a-Glance Class and Certification Types Tables .....	38
Manikins and Feedback Devices for CPR Training .....	12	Initial Training, Traditional Classroom .....	38
<b>Program Description</b> .....	<b>13</b>	Initial Training, Blended Learning .....	44
Program Goal .....	14	Challenge .....	46
Class Goal .....	14	<b>Lesson Plans</b> .....	<b>49</b>
Class Audience .....	14	About the Lesson Plans and Class Types .....	50
Class Instructor .....	14	About the Procedure Graphics .....	50
Terminal Learning Objectives .....	14	<b>Initial Training, Traditional Classroom</b> .....	<b>51</b>
Student-to-Instructor Ratio (SIR) .....	15	Learning Environment .....	51
Student-to-Manikin Ratio (SMR) .....	15	Classroom Space and SIR .....	51
Program Design .....	15	Classroom Health and Safety .....	52
Class Format .....	15	Class Preparation .....	54
Program Flexibility .....	15	Class Equipment and Materials Checklist for All Class Types .....	55
Instructional Strategy .....	16	Required Class Equipment and Materials .....	56
Instructor Proficiency .....	17	Optional Class Equipment and Materials .....	57
Instructional Elements .....	17	Introductory Lessons .....	58
Enabling Lesson Objectives .....	17	Child CPR AED Lessons .....	68
Methods .....	17	Infant CPR AED Lessons .....	86
Evaluation .....	17	Adult CPR AED Lessons .....	104
Required Training Content .....	17	Pediatric First Aid Lessons .....	122
Supplemental Training Content .....	17	Conclusion Lesson .....	186
Third-Party Training Content .....	17	<b>Initial Training, Blended Learning</b> .....	<b>187</b>
<b>Teaching Pediatric First Aid   CPR AED</b> .....	<b>19</b>	The Online Portion of Blended Learning .....	187
Training Program Structure .....	20	The Face-To-Face Portion of Blended Learning .....	187
Main Lesson Segments .....	20	Class Preparation .....	188
Using Lesson Plans .....	20	Class Equipment and Materials Checklist for All Class Types, Blended Learning .....	190
Using the Procedure Graphics .....	20	Required Class Equipment and Materials, Blended Learning .....	191
Class Format and Delivery Method .....	21		
Traditional Classroom .....	21		

Optional Class Equipment and Materials, Blended Learning.....	191
Introductory Lessons .....	192
Child CPR AED Lessons .....	196
Infant CPR AED Lessons .....	206
Adult CPR AED Lessons .....	216
Pediatric First Aid Lessons .....	228
Conclusion Lesson .....	236
<b>Renewal Training .....</b>	<b>237</b>
Renewal Instructional Strategy .....	237
Renewal with Spaced Practice .....	239
Pediatric First Aid   Child, Infant, and Adult CPR AED Renewal Training (Foundational Class).....	239
Child, Infant, and Adult CPR AED Renewal Training .....	239
Pediatric First Aid Only Renewal Training .....	239
<b>Challenge .....</b>	<b>241</b>
Delivery Method.....	241
Challenge Preparation .....	241
Class Equipment and Materials Checklist for All Class Types, Challenge .....	242
Required Class Equipment and Materials, Challenge .....	243
Optional Class Equipment and Materials, Challenge .....	243
Introduction .....	244
Required Skill Evaluations .....	245
Conclusion .....	246
<b>Appendix .....</b>	<b>247</b>
Pediatric First Aid   CPR AED Class Roster.....	248
Spaced Practice Attendance Sheet.....	249
Sample Class Floor Plan.....	251

# ABOUT THIS INSTRUCTOR MANUAL

HSI is in the process of transitioning all our individual health and safety training brands into a single unified one – HSI. This Instructor Guide consolidates the American Safety and Health Institute (ASHI), EMS Safety (EMSS), and MEDIC First Aid pediatric first aid and CPR AED training programs into a single, completely revised training program incorporating the most current guidelines and treatment recommendations. To address the risk of confusion in the market and among regulators and others during our brand transition, HSI’s certification cards will continue to carry the ASHI, EMS Safety, and MEDIC First Aid logos for a prolonged period until they are slowly phased out.

We have integrated and expanded on the best aspects of each training program while streamlining and harmonizing them. We have defined key terms to provide clarity. We have added important information to amplify core instructional design and resuscitation concepts.

**This Instructor Guide provides authorized HSI Instructors with flexibility to offer five different class types and certifications, depending on what employers or students require or desire.**

- 1 PEDIATRIC FIRST AID
- 2 CHILD AND INFANT CPR AED
- 3 CHILD, INFANT, AND ADULT CPR AED
- 4 PEDIATRIC FIRST AID | CHILD AND INFANT CPR AED
- 5 PEDIATRIC FIRST AID | CHILD, INFANT, AND ADULT CPR AED

However, the foundation of this training program is the Pediatric First Aid | Child, Infant, and Adult CPR AED class. As such, the primary “route” through this Instructor Guide is the Pediatric First Aid | Child, Infant, and Adult CPR AED class type. For details, please refer to Part Three: Teaching Pediatric First Aid | CPR AED.



## Program Goal

The goal of this training program is to assist our approved Training Centers and authorized Instructors to positively impact the lives of others by helping students acquire and improve their knowledge and skills to protect and preserve life, alleviate suffering, and promote recovery.



## Class Audience

Individuals who are not healthcare providers or professional rescuers who desire, or are occupationally required, to be trained and certified in pediatric first aid and/or CPR AED for the child, infant, and adult.



## Class Goal

The goal of a pediatric first aid and/or CPR AED training class is for participants to gain or improve knowledge and skill proficiency in pediatric first aid and/or CPR AED for the adult, child, and infant.



## Class Instructor

This class may only be taught by an HSI Instructor currently authorized to teach pediatric first aid and CPR AED.



## Terminal Learning Objectives

These objectives identify what participants will know and be able to do upon successful completion of the pediatric first aid and/or CPR AED class. These objectives will vary based on which class type and age range is taught.

- Terminal Cognitive Objectives (Required Knowledge)
- Terminal Psychomotor Objectives (Required Skills)

### CPR AED Objectives

- Recognize the main elements to the procedure for pediatric CPR AED.
- Recognize the elements of high-quality CPR and their importance on survival from cardiac arrest.
- Identify the links in the pediatric chain of survival.
- Recognize when high-quality CPR is required.
- Describe how to perform high-quality child, infant, and adult CPR.
- Describe how to provide treatment for a choking child, infant, and adult.
- Correctly demonstrate the removal of contaminated personal protective equipment.
- Correctly demonstrate the pediatric and adult CPR AED procedure.
- Correctly demonstrate how to provide effective rescue breaths using a CPR mask.
- Correctly perform high-quality child, infant and adult CPR.
- Correctly demonstrate how to use an AED on a child and adult.
- Correctly demonstrate how to provide treatment for a choking infant.

### Pediatric First Aid Objectives

- Summarize the basic legal concepts that apply to providing pediatric first aid, CPR AED.
- Recognize the pediatric first aid provider's role, responsibilities, and priorities.
- Recognize the main elements to the procedure for pediatric first aid.
- Explain the Pediatric First Aid Procedure.
- Describe how to recognize and provide pediatric first aid treatment for injury, medical, and environmental emergencies.
- Recognize the benefits of a safety-oriented home and workplace culture.
- Correctly demonstrate the removal of contaminated personal protective equipment.
- Correctly demonstrate the Pediatric First Aid Procedure.
- Correctly demonstrate how to control severe external bleeding.
- Correctly demonstrate how to use an epinephrine autoinjector.

performance evaluation one  
**CHILD – ONE-PROVIDER CPR AED**



Student Name \_\_\_\_\_ Class Date \_\_\_\_\_

You are a trained CPR AED provider responding to an emergency alert for a child passed out on the playground. As you approach the scene, you see an untrained coworker kneeling next to a motionless child lying on the ground. The bystander says, “He was just kicking the soccer ball around and collapsed. He’s only seven!” You have appropriate PPE. There is an AED nearby. You have a CPR mask with a one-way valve with your first aid kit. Demonstrate what actions you would take next.

Procedure	Provider Action (Performance Criteria)	Instructor Prompt	Check Off
<b>Performs Assessment</b>	<ul style="list-style-type: none"> <li>▸ Assesses scene safety.</li> <li>▸ Takes Standard Precautions.</li> <li>▸ Assesses responsiveness.</li> <li>▸ Activates EMS and/or EAP.</li> <li>▸ After activating, and unless they are readily available, sends someone to get the first aid kit and an AED.</li> </ul>	<p><i>“Scene is safe.”</i></p> <p><i>“Child is unresponsive.”</i></p> <p><i>“EMS has been activated.”</i></p> <p><i>“The coworker will get the AED.”</i></p>	
<b>Assesses Breathing</b>	<ul style="list-style-type: none"> <li>▸ Assesses breathing for no more than 10 seconds.</li> </ul>	<p><i>“The child is not breathing.”</i></p>	
<b>Starts High-Quality CPR</b>	<ul style="list-style-type: none"> <li>▸ Immediately starts CPR, beginning with chest compressions.</li> <li>▸ Performs 30 high-quality chest compressions.</li> <li>▸ Places 1 or 2 hands on the center of the chest.</li> <li>▸ Compresses at least 2 inches (5 cm).</li> <li>▸ Compresses at a rate of 100–120 times per minute (30 compressions in no less than 15 and no more than 18 seconds).</li> <li>▸ Allows chest to fully recoil at the top of compressions.</li> </ul>		
<b>Gives Rescue Breaths</b>	<ul style="list-style-type: none"> <li>▸ Seals the CPR mask against the child’s face.</li> <li>▸ Opens the airway using the head tilt–chin lift maneuver.</li> <li>▸ Gives two rescue breaths. Ensures each breath is 1 second in length. Creates visible rise of chest, but no more.</li> <li>▸ Immediately resumes chest high-quality chest compressions in less than 10 seconds.</li> </ul>		
<b>Continues High-Quality CPR</b>	<ul style="list-style-type: none"> <li>▸ Repeats a second CPR cycle of 30:2 compressions-to-breaths.</li> </ul>	<p><i>[Student needs to complete this cycle before coworker arrives with AED.]</i></p>	
<b>Operates the AED</b>	<ul style="list-style-type: none"> <li>▸ Powers on the AED. Bares the chest.</li> <li>▸ Switches AED to child use (if required by AED).</li> <li>▸ Correctly applies pediatric AED pads.</li> <li>▸ Follows AED prompts.</li> </ul>	<p><i>[Instructor in the role of coworker]</i></p> <p><i>“Here is the AED.”</i></p>	

Continued on Next Page >



Procedure	Provider Action (Performance Criteria)	Instructor Prompt	Check Off
<b>Clears for Analysis</b>	<ul style="list-style-type: none"> <li>▸ Makes sure no one is touching the child.</li> </ul>	<i>[AED] “Analyzing.”</i>	
<b>Safely Delivers Shock</b>	<ul style="list-style-type: none"> <li>▸ Makes sure no one is touching the child.</li> <li>▸ Presses shock button.</li> </ul>	<i>[AED] “Shock advised.”</i> <i>[Instructor] “Child’s muscles contract suddenly.”</i>	
<b>Continues High-Quality CPR</b>	<ul style="list-style-type: none"> <li>▸ Immediately resumes high-quality chest compressions in less than 10 seconds.</li> <li>▸ Completes a third cycle of 30:2 compressions-to-breaths.</li> </ul>		
<b>Removes PPE</b>	<ul style="list-style-type: none"> <li>▸ Correctly removes and disposes of gloves.</li> <li>▸ Verbalizes washing hands immediately after removing gloves</li> </ul>	<i>[Instructor] “EMS arrives and takes over. Please demonstrate how to remove your PPE and what actions you would take next.”</i>	

**END PERFORMANCE EVALUATION**

Successfully Completed.      Not Successfully Completed. Remediation Required.

Signature of HSI Authorized Instructor \_\_\_\_\_ HSI Instructor Registry Number: \_\_\_\_\_

# CLASS PREPARATION

## About a Month or Two Before Class

- ✓ Secure a classroom with an adequate space and learning environment.
- ✓ Confirm the date, location, and number of students.
- ✓ Reserve training equipment for the class type and age ranges to be taught.
- ✓ Schedule and confirm additional HSI Authorized Instructors as required/preferred.
- ✓ Order from HSI the appropriate certification cards, skill guides, and other training materials as necessary.

## About Three Weeks Before Class

- ✓ Send a pre-class letter or email to each student that:
  - › Confirms the class location, agenda, and time.
  - › Encourages them to check with their employer or accrediting, credentialing, or licensing agency to ensure the class will meet their requirements before attending training.
  - › Informs them that the class will involve close contact with other students, resuscitation manikins, and other equipment.
  - › Reviews any pertinent recommendations from local, state, or federal health authorities that affects what participants should expect in the classroom setting.
  - › Requests that they reschedule their training if they may have been exposed to an infectious disease; are experiencing fever, coughing, shortness of breath, diarrhea, fatigue, or muscle aches; or if they have open wounds or sores on their hands or mouth.
  - › Describes the steps you take to protect students and help ensure a safe and healthy learning environment (hand hygiene, cleaning and disinfecting of surfaces and equipment, physical distancing, etc.).
    - › Reminds them to wear loose, comfortable clothing suitable for skill practice.
    - › Advises them to let you know if they have a disability and what reasonable accommodations may be necessary (see *Americans with Disabilities Act* in the TCAM for more).
  - › Provides your contact information.

## A Few Days Before Class

- ✓ If you may have been exposed to an infectious disease; are experiencing fever, coughing, shortness of breath, diarrhea, fatigue, or muscle aches; or have open wounds or sores on your hands or mouth, find another Instructor to teach the class or reschedule it.
- ✓ Make sure you have adequate copies of essential class paperwork (or access to electronic versions).
- ✓ Briefly review the Traditional Classroom, Initial Training Lesson Plans for the class type and age ranges to be taught.
- ✓ Confirm your internet connection will be available to log in to Otis if you plan to stream the Class Presentation(s) or download it to the HSI Instructor Desktop Video Player or Mobile App and verify the media plays as expected.

## Day of Class

- ✓ Arrive early. Give yourself plenty of time to get set up and organized.
  - › Greet students as they arrive, introducing yourself to each one.
  - › Be friendly, considerate, respectful, and professional.
  - › Have students sign in on a sign-in sheet or the Class Roster.
- ✓ Have students complete a name tag or tent card and select a seat.
- ✓ Begin class. Start on time.
- ✓ Consider using a short, appropriate icebreaker as a warm-up exercise.
  - › Great ideas for these activities can be found on the internet by searching with the key word “icebreakers.”
- ✓ Establish a connection with the students.
- ✓ Ask about previous training. Connect the students’ experiences and knowledge to this class.
- ✓ Briefly cover class goal, agenda, breaks, certification requirements, and facility and classroom safety.
  - › Know and share the locations of the following: bathrooms, fire/emergency exits, fire alarm pull stations, best emergency evacuation route, first aid kits, emergency oxygen, and closest AED.
- ✓ Distribute the HSI Pediatric First Aid | CPR AED Skill Guide.

# CLASS EQUIPMENT AND MATERIALS CHECKLIST FOR ALL CLASS TYPES

The table below lists equipment and materials required for all five class types.

Required Class Materials	Additional Recommended Tools
<ul style="list-style-type: none"><li><input type="checkbox"/> Pediatric First Aid   CPR AED Lesson Plans, Instructor Guide, 1 per Instructor</li><li><input type="checkbox"/> Class Roster, 1 copy</li><li><input type="checkbox"/> Pediatric First Aid   CPR AED Initial Class Presentation for the class type you are teaching (select in Otis)</li><li><input type="checkbox"/> Pediatric First Aid   CPR AED Skill Guide, minimum 1 for each 3 students</li><li><input type="checkbox"/> Certification Card(s) purchased from HSI for the class type you are teaching (print or digital, 1 per student)</li></ul>	<p>In-person traditional classroom format:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Pens or pencils, 1 for each student</li><li><input type="checkbox"/> Blankets, kneeling pads, or mats, 1 for each 3 students</li><li><input type="checkbox"/> Name tags or tent cards, 1 for each student</li><li><input type="checkbox"/> Spare projector bulb (as needed)</li><li><input type="checkbox"/> Extension cord(s)</li><li><input type="checkbox"/> Multi-strip power surge protector</li><li><input type="checkbox"/> Whiteboard with dry erase pens and eraser</li><li><input type="checkbox"/> Large black markers for student name tags or tent cards</li><li><input type="checkbox"/> Large envelope for class paperwork</li></ul>
Required Class Equipment	
<ul style="list-style-type: none"><li><input type="checkbox"/> Desktop or laptop computer (Windows or Mac), or smartphone or tablet, 1 per Instructor</li><li><input type="checkbox"/> Internet connection (for streaming), HSI Instructor Desktop Video Player or HSI Instructor Mobile App with downloaded Class Presentation media</li><li><input type="checkbox"/> Video monitor or computer projector and screen large enough for all students in class to see</li><li><input type="checkbox"/> Disposable gloves (nonlatex), minimum 2 pair for each student</li></ul>	

# REQUIRED CLASS EQUIPMENT AND MATERIALS

The table below lists required equipment and materials for all class types by main lesson segment.

Equipment/Materials	Child CPR AED	Infant CPR AED	Adult CPR AED	Pediatric First Aid
CPR manikins, minimum 1 for each 3 students (1:1 recommended)	• Adult/Child	• Infant	• Adult	
CPR manikin cleaning and disinfecting wipes	•	•	•	
AED Trainer with pads, minimum 1 for each 3 students	• Adult or pediatric pads		• Adult pads	
CPR mask and one-way disposable mouthpiece with valve for CPR mask, 1 for each student	• Adult/Child	• Infant	• Adult	
Stopwatch for CPR AED Performance Evaluation, minimum 1 per Instructor (online, smartphone app, or handheld digital)	•	•	•	
Performance Evaluation 1: Child – One-Provider CPR AED, 1 per student	•			
Performance Evaluation 2: Infant – One-Provider CPR, 1 per student		•		
Performance Evaluation 3: Adult – One-Provider CPR AED, 1 per student			•	
Performance Evaluation 4: Pediatric First Aid – Severe Life-Threatening External Bleeding, 1 per student				•
Performance Evaluation 5: Pediatric First Aid – Severe Allergic Reaction, 1 per student				•
10-pack of clean 4" x 4" gauze sponges, minimum 1 for each 3 students				•
Clean elastic or self-adhesive roller bandage, minimum 1 for each 3 students				•
Epinephrine autoinjector trainer, minimum 1 for each 3 students				•

## lesson fourteen

**INFANT – ASSESSMENT & CHEST COMPRESSIONS****PREPARE****Duration**  
**7 minutes****Class Format: Initial Training**  
**Delivery Method: Traditional Classroom****PRESENT****Begin the Lesson****What Students Should Learn**

After completing this lesson, the student should be able to:

- Identify the infant assessment steps.
- Correctly demonstrate high-quality chest compressions on an infant [CPR training manikin].

**Why This Topic Matters**

Assessment of the scene and the infant is a critical skill that applies in any emergency. The initial steps of assessment are crucial. If an unresponsive infant is not breathing normally or only gasping, immediately start CPR, beginning with chest compressions. High-quality chest compressions are the foundation of high-quality CPR.

**Play the Video****Instructional Notes**

1. The purpose of this lesson is for students to perform the steps of infant assessment with a focus on an infant who is unresponsive and not breathing normally or only gasping – and then to take immediate action beginning with chest compressions.
  - a. Refer to the *Procedure for Pediatric CPR AED*.
2. Students practice performing 30 high-quality chest compressions on an infant CPR training manikin. Make sure they count out loud.
3. HSI strongly recommends the use of an instrumented directive feedback device that transmits evaluative or corrective information on compression rate, depth, recoil, and hand position during CPR training. The feedback device can be integrated into a manikin or be used as an accessory with it.
4. Remind students to routinely decontaminate their hands with an alcohol-based hand sanitizer and to clean and disinfect the manikin after each student practices.

## PRACTICE & ASSESS



### Conduct a Hands-On Student Practice

- ▶ Explain the hands-on practice method you are using.
- ▶ Run a **Video-Guided Practice** or practice with **Skill Sheet 8: Infant – Assessment & Chest Compressions** or **Scenario Sheet 8**.



### Assess Students

- Look for correct skill performance by students.
- Use positive coaching and gentle correction to improve student skills.
- Ensure adequate practice time for students to gain skill proficiency.

## WRAP UP



### Encourage Constructive Feedback as Needed

Instructors and students provide specific and constructive feedback to each other and to their peers.



### Reinforce Key Points as Needed

1. Weak, irregular gasping, snorting, snoring, or gurgling is not normal breathing.
2. High-quality chest compressions are the foundation of high-quality CPR.
3. For infant compressions, use one of three hand-position techniques: 2-Finger, 2-Thumb Encircling-Hands, or the Heel of One Hand.
  - a. Whichever technique you use, push hard, straight down, to compress the chest approximately 1½ inches (4 cm). This depth should be at least one-third of the diameter of the infant's chest.
  - b. At the end of each compression, allow complete chest recoil.
  - c. Compress the chest at a rate of 100-120 compressions per minute. Minimize interruptions.
4. If you are alone without a mobile device or are unable to activate EMS and/or your EAP right away, give two minutes of CPR before carrying an uninjured infant with you to get an AED and activate EMS and/or your EAP.



### Ask a Review Question as Needed

You are a trained CPR provider responding to [\_a shout for help\_] from the [\_customer entry\_]. A panicked adult hands you a limp, unresponsive infant. The scene is safe. You have disposable gloves and a CPR mask. You tap the infant and ask loudly, “Are you okay?” There is no response. Your EAP has activated EMS. Another provider is bringing an AED. The infant is not breathing. What would you do?

- a. Give 2 rescue breaths that make the chest rise.
- b. Immediately assess for life-threatening conditions.
- c. **Immediately start CPR, beginning with chest compressions.**
- d. Check for a pulse in the infant's upper arm for no more than 30 seconds.



### Ask For & Answer Questions Before Moving to the Next Lesson

# ADULT CPR AED

lesson twenty-one

## ADULT - SUDDEN CARDIAC ARREST (SCA)

### PREPARE



**Duration**  
**6 minutes**



**Class Format: Initial Training**  
**Delivery Method: Traditional Classroom**

### PRESENT



**Begin the Lesson**

**Skip this segment if you are not teaching Adult CPR AED.**



**What Students Should Learn**

After completing this lesson, the student should be able to:

- Describe sudden cardiac arrest (SCA) and its treatment.
- Explain the adult chain of survival concept.



**Why This Topic Matters**

Cardiac arrest is among the leading causes of death in the United States and worldwide. Sudden cardiac arrest (SCA) can happen with little or no warning.



**Play the Video**

## WRAP UP

**Reinforce Key Points as Needed**

1. Sudden cardiac arrest occurs when the normal electrical impulses in the heart cause it to beat too quickly, inefficiently, or in an unsynchronized manner.
2. Immediate, high-quality CPR and early defibrillation with an AED can more than double the likelihood of survival.
3. The adult “chain of survival” is a series of six interdependent links that describe the best approach to cardiac arrest care.

**Ask a Review Question as Needed**

The most effective way to end pulseless ventricular tachycardia and ventricular fibrillation is \_\_\_\_\_.

- a. **Defibrillation**
- b. Medication
- c. High-quality CPR
- d. Advanced life support

**Ask For & Answer Questions Before Moving to the Next Lesson****Share a Brief Safety & Health Tip**

Following a heart-healthy lifestyle can help you lower your risk for heart disease, SCA, and other heart problems. A heart-healthy lifestyle includes eating a heart-healthy diet; aiming for a healthy weight; managing stress; engaging in physical activity; and quitting smoking.<sup>51</sup>

51 The National Heart, Lung, and Blood Institute. Sudden Cardiac Arrest. Available: [www.nhlbi.nih.gov/health-topics/sudden-cardiac-arrest](http://www.nhlbi.nih.gov/health-topics/sudden-cardiac-arrest) [Retrieved 8/13/21]

## lesson twenty-two

**ADULT – ASSESSMENT & CHEST COMPRESSIONS****PREPARE****Duration**  
**7 minutes****Class Format: Initial Training**  
**Delivery Method: Traditional Classroom****PRESENT****Begin the Lesson****What Students Should Learn**

After completing this lesson, the student should be able to:

- Identify the adult assessment steps.
- Correctly demonstrate high-quality chest compressions on an adult [CPR training manikin].
- Correctly demonstrate compression-only CPR on an adult CPR training manikin. (Optional)

**Why This Topic Matters**

Assessment of the scene and the person is a critical skill that applies in any emergency. The steps of assessment are crucial in determining the provider's next actions. If an unresponsive person is not breathing normally or only gasping, immediately start CPR, beginning with chest compressions. High-quality chest compressions are the foundation of high-quality CPR.

**Play the Video****Instructional Notes**

1. The purpose of this lesson is for students to repeat the steps of assessment with a focus on an adult who is unresponsive and not breathing normally or only gasping, and then to take immediate action beginning with chest compressions.
  - a. Refer to the *Procedure for Adult CPR AED*.
2. Students practice performing 30 high-quality chest compressions on an adult CPR training manikin. Make sure they count out loud.
  - a. An optional compression-only student practice is included in the Class Presentation for this lesson. Students may practice performing one minute of uninterrupted chest compressions at 100-120 compressions per minute on an adult CPR training manikin.
3. HSI strongly recommends the use of an instrumented directive feedback device that transmits evaluative or corrective information on compression rate, depth, chest recoil, and hand position during CPR training. The feedback device can be integrated into a manikin or be used as an accessory with it.
4. Remind students to routinely decontaminate their hands with an alcohol-based hand sanitizer and to clean and disinfect the manikin after each student practices.

**PRACTICE & ASSESS****Conduct a Hands-On Student Practice**

- ▶ Explain the hands-on practice method you are using.

- ▶ Run a **Video-Guided Practice** or practice with **Skill Sheet 12: Adult – Assessment & Chest Compressions** or **Scenario Sheet 12**.
- ▶ Run a **Video-Guided Practice** or practice with **Skill Sheet 18: Adult – Compression-Only CPR (Optional)** or **Scenario Sheet 20**.



### Assess Students

- Look for correct skill performance by students.
- Use positive coaching and gentle correction to improve student skills.
- Ensure adequate practice time for students to gain skill proficiency.

## WRAP UP



### Encourage Constructive Feedback as Needed

Instructors and students provide specific and constructive feedback to each other and to their peers.



### Reinforce Key Points as Needed

1. The steps of assessment are crucial in all but the most minor circumstances.
  - a. Assess scene safety.
  - b. Take Standard Precautions.
  - c. Assess responsiveness.
  - d. Activate EMS and/or your emergency action plan (EAP).
  - e. Send someone to get the first aid kit and an AED.
  - f. Assess breathing for no more than 10 seconds.
2. Weak, irregular gasping, snorting, snoring, or gurgling sounds are known as agonal breaths. This is not normal breathing. It is a sign of cardiac arrest.
3. If an unresponsive person is not breathing or only gasping, immediately start CPR.
  - a. If willing and able, trained CPR providers should perform conventional CPR at a ratio of 30 compressions to 2 rescue breaths.
  - b. For adults and teens in cardiac arrest, untrained bystanders and trained CPR providers should at a minimum provide compression-only CPR, with or without dispatcher assistance.
4. High-quality chest compressions are the foundation of high-quality CPR.
  - a. Push hard and deep, straight down, using your upper body weight to compress the chest at least 2 inches (5 cm). Chest compressions are most often performed too shallowly.
  - b. At the end of each compression, lift all your weight off the person's chest, allowing it to completely recoil, or rebound, to its normal position, but do not lose contact with the chest.
  - c. Push fast. Compress the chest at a rate of 100-120 compressions per minute.
  - d. Perform 30 high-quality chest compressions. Count out loud.
  - e. Minimize interruption in chest compressions. Fewer and shorter interruptions in chest compressions are associated with better outcomes.



### Ask a Review Question as Needed

You are a trained CPR provider responding to [a request for help on the overhead paging system] for [a teacher] who passed out. You see a motionless adult lying face up on the [classroom floor]. The scene is safe. You have disposable gloves and a CPR mask. You tap the person and ask loudly, "Are you okay?" There is no response. Your EAP has activated EMS. Another provider is bringing an AED. The person is making snoring sounds and gasping. What would you do?

- a. Give 2 rescue breaths that make the chest rise.
- b. Immediately assess for life-threatening conditions.
- c. Check the pulse in the neck for no more than 10 seconds.
- d. **Immediately start CPR, beginning with chest compressions.**



### Ask For & Answer Questions Before Moving to the Next Lesson

# MSI

SAMPLE - INTERNAL USE ONLY

**Health & Safety Institute**  
1450 Westec Drive  
Eugene, OR 97402 USA  
800-447-3177

[hsi.com/brands](http://hsi.com/brands)

isbn: 978-1-945991-41-7

**MEDIC**  
First Aid

**AMERICAN SAFETY & HEALTH INSTITUTE**

**EMS**  
SAFETY

**hsi** Health & Safety  
Institute™