

# Lesson 1

## Adult CPR AED Introduction

9 minutes

### Instructor Tips

- Be familiar with the learning objectives and the Heartsaver course content. It's critical that you know what you want to communicate, why it's important, and what you want to happen as a result.
- Think about how you want to manage breaks during the course. Making yourself available allows you to answer questions people might feel too embarrassed to ask in front of everyone. It also gives you time to establish rapport and get feedback.



### Discussion

- Introduce yourself and additional instructors, if present.
- Invite students to introduce themselves.
  - It is important to ask students at the beginning of the class to provide information about their occupations so you can tailor the class to best fit their needs.
- Explain that the course is interactive. Refer to the following points (see detailed information for each throughout the instructor manual) for discussion with students:
  - Your role
  - Video-based learning
    - Use of scenarios
    - Practice while watching
      - Refer to Part 2: Teaching the Course in the instructor manual for detailed information about practice while watching
  - Use of the student workbook
  - Exam (if required)
  - Skills test
- Ask that any student who anticipates difficulties with the skills test due to personal limitations, such as a medical concern or knee or back problems, speak with one of the instructors. Refer to Part 1: Preparing for the Course in the instructor manual for further explanation about students with special needs.
- Explain the layout of the building, including bathrooms and emergency exits.
- Remind students of where the nearest AED is located and what their emergency response number is.
- Describe the course agenda.
  - Inform students of breaks you have scheduled during the class.
  - Tell the students, "We are scheduled to end at \_\_\_\_."
- Remind students what they will learn during the course. At the end of Heartsaver Adult CPR AED, students will be able to
  - Describe how high-quality CPR improves survival
  - Explain the concepts of the Chain of Survival

- Recognize when someone needs CPR
- Perform high-quality CPR for an adult
- Describe how to perform CPR with help from other bystanders
- Give effective breaths by using mouth-to-mouth or a mask
- Demonstrate how to use an AED on an adult
- Describe when and how to help a choking adult or child
- For further detail on the video and scenarios to be shown during the course, refer to the Course Path Outlines section in Part 4: Additional Resources in the instructor manual.
- Remind students of the course completion requirements:
  - Students must pass the Adult CPR and AED Skills Test.
  - To pass the optional exam, students must score at least 84%.



## **Play Video**

The video will show and discuss

- Kurt's story
- CPR AED introduction



## Lesson 2

# Adult CPR

28 minutes

Part 1: Scene Safety and Assessment

Part 2: Chest Compressions

Part 3: Giving Breaths (Mouth-to-Mouth)

Part 4: Giving Breaths (With a Mask)

### Learning Objectives

Tell students that at the end of this lesson, they will be able to

- Describe how high-quality CPR improves survival
- Explain the concept of the Chain of Survival
- Recognize when someone needs CPR
- Describe how to perform CPR with help from other bystanders
- Give effective breaths by using mouth-to-mouth or a mask for all age groups
- Perform high-quality CPR for an adult

### Instructor Tips

- Practice while watching: Remind students that they will be practicing while watching a video segment, so that they will be prepared and know to get in place for the practice video segment.
- Feedback: When providing feedback to students who are practicing, remember to focus on what you do want rather than what you don't want. Remember to always state feedback in a positive tone.
- Tell students to have their student workbook accessible during the course.
- When concluding a practice-while-watching session, ask all students if they are ready to move forward to the next skill or if they would like to repeat practice while watching.
- Familiarize yourself with all equipment that will be used in the class and how to assemble it so that
  - You know how to help students with the equipment during the course
  - You are able to troubleshoot any problems with the equipment
- Make sure not to interrupt the video if you have any comments to add. Instead, write them down and discuss them at the end of the video. Students do not learn well when they are trying to listen to two things at once.



### Student Workbook

Students can turn to CPR and AED Use for Adults in the student workbook to follow along.



## Play Videos

The videos will show and discuss

- Cardiac arrest vs heart attack
- Scene safety and assessment



## Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Ask students to recall the steps of scene safety and assessment, and tell students they will now practice the scene safety and assessment sequence.



## Practice While Watching: Scene Safety and Assessment

- Students will follow along with the video to complete the following actions. These actions can be completed in a different order, but this sequence is followed during the practice-while-watching segment.
  - Make sure the scene is safe.
  - Tap and shout (check for responsiveness).
  - Shout for help.
  - Phone 9-1-1 and get an AED.
  - Check for normal breathing.
- Observe students and provide positive and corrective feedback on their performance.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



## Play Video

The video will show and discuss

- Chest compressions



## Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Tell students they will practice adult chest compressions and will complete 2 sets of 30 compressions. Students need to count out loud while providing compressions.



## Practice While Watching: Chest Compressions

- Students will follow along with the video to complete the following steps:
  - Position yourself at the ill or injured person's side.
  - Make sure the person is lying on their back on a firm, flat surface.
  - Quickly move bulky clothes out of the way. If a person's clothes are difficult to remove, you can still provide compressions over clothing.
    - If an AED becomes available, remove all clothes that cover the chest. AED pads must not be placed over any clothing.



- Put the heel of one hand on the center of the chest (over the lower half of the breastbone). Put your other hand on top of the first hand.
- Push straight down at least 2 inches.
- Push at a rate of 100 to 120 compressions per minute. Count the compressions out loud.
- Let the chest come back up to its normal position after each compression.
- Try not to interrupt compressions for more than 10 seconds, even when you give breaths.
- Observe students and provide positive and corrective feedback on their performance.
  - Emphasize core concepts: correct hand placement; push hard, push fast; allow complete chest recoil.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.

## Compressions for a Pregnant Woman

- Do not delay providing chest compressions for a pregnant woman in cardiac arrest. High-quality CPR can increase the mother's and the infant's chance of survival. If you do not perform CPR on a pregnant woman when needed, the lives of both the mother and the infant are at risk.
- Perform high-quality chest compressions for a pregnant woman in cardiac arrest as you would for anyone who has had a cardiac arrest. If the woman begins to move, speak, blink, or otherwise react, roll her onto her left side.



### Play Video

The video will show and discuss

- Giving breaths (mouth-to-mouth)
  - Head tilt–chin lift



### Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Tell students they will practice giving breaths and will complete 3 sets of 2 breaths.
  - Ask students to take off lipstick and remove gum.



### Practice While Watching: Giving Breaths (Mouth-to-Mouth)

- Students will follow along with the video to complete the following steps:
  - Put one hand on the forehead and the fingers of your other hand on the bony part of the chin.
  - Tilt the head back and lift the chin.
  - While holding the airway open, pinch the nose closed with your thumb and forefinger.
  - Take a normal breath. Cover the person's mouth with your mouth.
  - Give 2 breaths (blow for 1 second for each). Watch for the chest to begin to rise as you give each breath.
    - Try not to interrupt chest compressions for more than 10 seconds.

- Observe students and provide positive and corrective feedback on their performance.
  - Emphasize visible chest rise.
  - Have students reopen the airway if necessary.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



## Practice While Watching: Using a Pocket Mask to Give Breaths

- Students will follow along with the video to complete the following steps:
  - Put the mask over the person's mouth and nose.
    - If the mask has a narrow, pointed end, put that end on the bridge of the nose; position the wide end so it covers the mouth.
    - Tilt the head and lift the chin while pressing the mask against the person's face. It is important to make an airtight seal between the person's face and the mask while you lift the chin to keep the airway open.
  - Give 2 breaths (blow for 1 second for each). Watch for the chest to begin to rise as you give each breath.
    - Try not to interrupt chest compressions for more than 10 seconds, even when you give breaths.
- Observe students and provide positive and corrective feedback on their performance.
  - Tell students they need to hold the mask firmly against the face.
  - Emphasize visible chest rise.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session



## Play Video

The video will show and discuss

- Giving breaths (with a mask)



## Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Have students assemble their masks by popping the mask into shape and attaching the mask's 1-way valve.
- During the pause, ensure that students are able to use the proper hand technique for achieving a good seal of the mask on the face. Place the hand in a "C" position to achieve this.
- Tell students they will practice giving breaths and will complete 3 sets of 2 breaths.



## Lesson 3

### Use an AED (Adult)

8 minutes

Part 1: Using an AED

Part 2: Putting It All Together

#### Learning Objective

Tell students that at the end of this lesson, they will be able to

- Demonstrate how to use an AED on an adult

#### Instructor Tips

- When leading a discussion, ask your students open-ended questions that focus on their perspective to engage their minds and increase their participation.
- When answering a question, acknowledge the individual with eye contact, and then answer to the entire room, coming back to the questioner periodically.
- There may be multiple sets of pads (for an adult, child, or infant) supplied with the AED. The focus of this lesson is the use of an AED on an adult.



#### Student Workbook

Students can turn to the Use an AED section in CPR and AED Use for Adults in the student workbook to follow along.



#### Play Video

The video will show and discuss

- How to use an AED
- AED special considerations
  - What to do when the person
    - Has a hairy chest
    - Is immersed in water or has water covering the chest
    - Has an implanted defibrillator or pacemaker
    - Has a transdermal medication patch or other object on the surface of the skin where the AED pads are to be placed
    - Is wearing jewelry or a bra
    - Is pregnant



#### Video Pauses: AED Review

During the pause, show students the AED trainer and

- Explain how to use the AED trainer
- Emphasize following the AED prompts
- Remind students that the AED trainer in class will not give a real shock
- Direct students to have the AED trainers accessible
- Tell students they are now going to practice using the AED



## Students Practice: Using an AED

- Lead students by teaching the following steps on how to use an AED. First show the steps while using your AED trainer, and then have students practice.

### *Instructions for Students*

- Turn the AED on and follow the prompts.
  - Turn it on by pushing the On button or lifting the lid.
  - Follow the prompts, which will tell you everything you need to do.
- Attach the adult pads.
  - Use the adult pads for anyone 8 years of age and older.
  - Peel away the backing from the pads.
  - Following the pictures on the pads, attach them to the person's bare chest.
  - Plug the pads connector into the AED, if necessary
- Let the AED analyze.
  - Loudly state, "Clear," and make sure that no one is touching the person.
  - The AED will analyze the heart rhythm.
  - If the AED tells you a shock is not needed, resume CPR.
- Deliver a shock if needed.
  - Loudly state, "Clear," and make sure that no one is touching the person.
  - Push the Shock button.
  - Immediately resume CPR.



## Play Video

The video will show and discuss

- Putting it all together (adult CPR AED)



## Video Pauses

- Tell students they will practice putting it all together by practicing scene safety and assessment, providing chest compressions, giving breaths (with a mask or mouth-to-mouth), and using an AED. Students will complete 2 cycles of 30 compressions and 2 breaths.
  - On the Adult CPR and AED Skills Test, you have the option to test students on giving breaths mouth-to-mouth or giving breaths with a mask. Have students practice the skill for giving breaths that they will be tested on.
- Have students position themselves at the side of their manikins to begin practice. Students need to count out loud while providing compressions.



## Students Practice: Putting It All Together

- Lead students by teaching the steps of scene safety and assessment, adult compressions, giving breaths (with a mask or mouth-to-mouth), and using an AED. Refer to each skill in this lesson plan for detailed steps.
- Observe students and provide positive and corrective feedback on their performance.
  - Coach students on strengthening adult high-quality CPR.
- Repeat the practice segment as many times as needed for all students to complete the practice session.



## Lesson 4

### Adult CPR AED Conclusion

2 minutes



#### Student Workbook

Students can turn to Putting It All Together: Adult High-Quality CPR AED Summary in the student workbook for further review.



#### Play Video

The video will show and discuss

- Adult CPR AED summary



#### Discussion

To prepare students for the Adult CPR and AED Skills Test, review the following questions with the class.

Also encourage students to review their Adult CPR and AED Skills Testing Checklist.

- What are the steps for assessment?
  - Make sure the scene is safe.
  - Tap and shout (check for responsiveness).
  - Shout for help.
  - Check for breathing.
- What are the steps for phoning 9-1-1 and getting an AED?
  - Tell someone to phone 9-1-1 and get an AED.
  - If the person is not breathing normally or is only gasping, begin CPR and use the AED as soon as it is available.
  - If you are alone, put your cell phone on speaker mode, phone 9-1-1, get an AED, and continue sets of 30 compressions and 2 breaths.
- What are some characteristics of high-quality CPR?
  - Do not lean on the chest.
  - Push down at least 2 inches.
  - Push at a rate of 100 to 120 compressions per minute.
  - Let the chest come back up to its normal position after each compression.
  - Give breaths quickly and effectively without interrupting compressions for more than 10 seconds.

Allow students enough time for review and skills practice, if needed, before beginning the skills test.

## Lesson 5

# Adult CPR and AED Skills Test

20 minutes

### Instructor Tips

- For skills testing, it is important to be prepared and organized with student skills testing checklists. Review these before class, and have all materials ready to properly test students on every step.
- During skills testing, be efficient with the use of multiple instructors in the room, assigning each a different role, especially when there is a high volume of students in the classroom. This will ensure effective remediation, a smooth process, and efficiency for completing the class on time.
- Make sure students are provided a private setting for skills testing.



### Discussion

Before the Adult CPR and AED Skills Test, read the following testing script aloud to the student (may be read to all students at once):

"This test is like a realistic emergency situation: You should do whatever you think is necessary to save the person's life. You will have to determine for yourself what you need to do. For example, if you check the response on the manikin and there is no response, then you should do whatever you would do for a person who is not responding. I will read a short scenario to you, but I won't be able to answer any questions. You can treat me like another rescuer who has arrived with you and tell me to do something to help you. If you make a mistake or forget to do something important, you should not stop. Just do your best to correct the error. Continue doing what you would do in an actual emergency until I tell you to stop. Do you have any questions before we start?"



### Skills Test

- Refer to the Understanding the Adult CPR and AED Skills Testing Checklist section and the critical skills descriptors for specific direction on how to test students on adult CPR and AED skills. These are found in Part 4: Additional Resources in the instructor manual.
  - Check off each skill as the student demonstrates competency per the critical skills descriptors.
- After starting, if the student asks any questions about the skills or sequences, you should not give them the answer. Rather, tell the student, "Do what you think is best right now." If the student asks questions about what to do with the manikin, tell the student, "Check the manikin yourself and do what you think is needed to save a life." If the student seems unsure, do your best to explain that they will be assessing the manikin and doing whatever is necessary.

### Remediation

For students who need remediation, follow these steps and refer to the remediation lesson plan.

- Determine where the students are having trouble during their Adult CPR and AED Skills Test.
- If needed, replay sections of video or practice skills to ensure learning.
- Retest skills as necessary.
- Some students may need additional practice or may need to repeat the course to demonstrate skills competency and to achieve a course completion card.



## Lesson 6

# Drug Overdose: Opioid-Associated Life-Threatening Emergencies

3 minutes

### Learning Objective

Tell students that at the end of this lesson, they will be able to

- Describe how to help someone with drug overdose emergencies



### Student Workbook

Students can turn to How to Help an Adult With a Drug Overdose Emergency in the student workbook to follow along.



### Discussion

Before playing the Drug Overdose video, inform students of the following:

- Opioids are prescription drugs used for pain relief but are often abused. A cause of cardiac arrest is opioid overdose.
- There is a safe and effective way to help someone with an opioid overdose. Naloxone is a medication used to reverse the effects of opioids and help the person to survive.
- For the purposes of this course, this information is being provided for public awareness, and it is based on the prevalence of deaths caused by opioid overdose.



### Play Video

The video will show and discuss

- Drug overdose



### Discussion

Review the following questions with the class:

- What are some signs of drug overdose?
  - Has a prescription for medication used for pain relief
  - Is unresponsive
  - Has slow or shallow breathing
- What actions do you take in an adult opioid-associated life-threatening emergency?
  - Shout for help.
  - If someone is nearby, have that person phone 9-1-1 and get the naloxone and an AED. Use the naloxone as soon as it arrives—but don't stop providing help while you wait for the naloxone.
  - If no one is nearby, phone 9-1-1 and get the naloxone and AED.
  - Check for breathing.

- If the person is breathing normally, give naloxone if available, and stay with the person until advanced help arrives.
- If the person is not breathing normally or is only gasping, provide CPR and use the AED as soon as it is available. Give the naloxone as soon as you can, but do not delay CPR to give naloxone.
- Continue giving CPR and using the AED until
  - Someone else arrives who can take turns providing CPR with you
  - The person begins to move, speak, blink, or otherwise react
  - Someone with more advanced training arrives



## Additional Discussion (Optional)

This information can be shared with students if questions arise or if further discussion is needed about naloxone.

- What is naloxone? Naloxone is a synthetic drug that blocks the effects of opioids and reverses an overdose. Naloxone is safe and effective; emergency medical professionals have used it for decades. [www.drugs.com/pro/naloxone.html](http://www.drugs.com/pro/naloxone.html)
- How do I get naloxone? You can get naloxone from a primary care physician. In addition, substance abuse treatment facilities, Veterans Administration healthcare systems, primary care clinics, and pharmacies have started providing naloxone to laypersons. [www.cdc.gov/mmwr/preview/mmwrhtml/mm6423a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6423a2.htm)
- How do I become trained to use naloxone? A primary care physician or a facility that provides naloxone will be able to provide information on how to become trained to use naloxone.
- How do I administer naloxone? Bystanders can safely and legally spray naloxone into the nose or inject it into a muscle.
  - Into the nose (intranasal spray)
  - Into the muscle via an autoinjector (intramuscular injection)
- Can naloxone hurt me? No. Naloxone affects only people who have used opioids.
- Can I use naloxone for other drug overdoses? No. Naloxone is used only for opioid overdoses.



## Lesson 7

### Adult Choking

5 minutes

#### Learning Objective

Tell students that at the end of this lesson, they will be able to

- Describe when and how to help a choking adult or child



#### Student Workbook

Students can turn to Choking in an Adult, a Child, or an Infant in the student workbook to follow along.



#### Play Video

The video will show and discuss

- Adult choking
  - Relief of choking in a responsive adult
  - Relief of choking in an unresponsive adult



#### Discussion

Review adult choking with students by asking the following:

- What is the difference between mild and severe airway block?
  - Mild airway block: The person
    - Can talk or make sounds
    - Can cough loudly
  - Severe airway block: The person
    - Cannot breathe, talk, or make sounds or
    - Has a silent cough or
    - Makes the choking sign
- What is the universal sign for choking?
  - Holding the neck with one or both hands
- Where should you give thrusts for a severely choking adult?
  - Slightly above the navel for abdominal thrusts
  - For a large or pregnant person: On the lower half of the breastbone for chest thrusts
  - For a person in a wheelchair: The same way as for a large or pregnant person
- What if you can't remove the object blocking the airway?
  - The person will become unresponsive. Always give CPR to anyone who is unresponsive and is not breathing normally or is only gasping. Giving both compressions and breaths is very important for someone with a severe airway block who becomes unresponsive.

- Why is it important not to perform a blind finger sweep in a choking person?
  - The object could become lodged farther back in the airway.

If students would like to practice their hand placement for abdominal thrusts for the relief of choking in an adult, students can place hands on themselves with your review or (optional) you can allow the students to practice hand placement on you.



## Lesson 8

### Water Safety

4 minutes

#### Learning Objective

Tell students that at the end of this lesson, they will be able to

- Describe the techniques that help prevent drowning emergencies



#### Play Video

The video will show and discuss the importance of

- Learning to swim
- Knowing about local hazards and one's own limitations
- Wearing a life jacket
- Being able to recognize and respond to a swimmer in distress, shout for help, and perform a safe rescue and CPR

## Lesson 9 Conclusion

2 minutes

### Instructor Tips

- When summarizing what the course has covered, allow students to lead this discussion at times by asking 1 or 2 students (maximum, for class time efficiency) what they observed/learned during the course.
- During the summary and closing, provide students with clear direction on how they can further study and seek out additional resources provided by the AHA to help with postclassroom training.



### Play Video

The video will show and discuss

- Conclusion



### Discussion

To conclude the course:

- Thank students for their participation.
- Summarize what students learned during the course. Refer to the course path outlines found in Part 4: Additional Resources in the instructor manual.
- Make sure that students complete the evaluation form.