CPR/AED for Professional Rescuers

INSTRUCTOR'S MANUAL

American Red Cross

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CPR/AED for Professional Rescuers

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This Instructor's Manual is part of the American Red Cross CPR/AED for Professional Rescuers program. The emergency care procedures outlined in the program materials reflect the standard of knowledge and accepted emergency practices in the United States at the time this manual was published. It is the reader's responsibility to stay informed of changes in emergency care procedures.

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Acknowledgments

This manual is dedicated to the thousands of employees and volunteers of the American Red Cross who contribute their time and talent to supporting and teaching lifesaving skills worldwide and to the thousands of course participants who have decided to be prepared to take action when an emergency strikes.

The care steps outlined within this product are consistent with the Guidelines 2015 for First Aid and the 2015 Consensus on Science for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. These treatment recommendations and related training guidelines have been reviewed by the American Red Cross Scientific Advisory Council, a panel of nationally recognized experts in fields that include emergency medicine, occupational health, sports medicine, school and public health, emergency medical services (EMS), aquatics, emergency preparedness and disaster mobilization.

Many individuals shared in the development and revision process in various supportive, technical and creative ways. The *American Red Cross CPR/AED for Professional Rescuers Instructor's Manual* was developed through the dedication of employees and volunteers both. Their commitment to excellence made this manual possible.

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CHAPTER 1

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PROGRAM OVERVIEW

PROGRAM PURPOSE

The primary purpose of the American Red Cross CPR/AED for Professional Rescuers course is to teach those with a duty to act (professional rescuers) the knowledge and skills needed to respond appropriately to breathing and cardiac emergencies. This includes the use of an automated external defibrillator (AED) to care for a victim experiencing cardiac arrest.

The care steps outlined within this manual are consistent with the 2015 International Liaison Committee on Resuscitation (ILCOR) Consensus on Science and Treatment Recommendations for CPR and Emergency Cardiovascular Care (ECC) and the 2015 American Heart Association and American Red Cross Guidelines for First Aid.

PROGRAM OBJECTIVES

It is your responsibility as an instructor to see that participants meet the learning objectives listed at the beginning of each lesson in this instructor's manual and achieve the American Red Cross CPR/AED for Professional Rescuers program benchmarks. The following are program objectives:

- Meet the age requirement.
- Describe the characteristics and responsibilities of a professional rescuer.
- Explain how to fulfill the responsibilities of a professional rescuer.
- Define certain legal considerations and apply them to situations that a professional rescuer might encounter.
- Describe what standard precautions to take to prevent disease transmission when providing care.
- Demonstrate how to put on gloves.
- Describe what standard precautions to take to prevent disease transmission when providing care.
- Demonstrate proper removal of disposable gloves.
- Identify items of concern when performing a scene size-up and forming an initial impression.
- Demonstrate how to perform a primary assessment for adults, children and infants and place a victim in a recovery position.
- Identify victim conditions that indicate the need to summon emergency medical services (EMS) personnel.

- Understand how to safely and effectively move a victim on land.
- Demonstrate how to use a resuscitation mask.
- Recognize and care for a breathing emergency.
- Demonstrate how to safely and effectively give ventilations. Demonstrate how to safely and effectively use a bag-valve-mask (BVM) resuscitator with two rescuers.
- Demonstrate how to safely and effectively care for an obstructed airway for a conscious and an unconscious victim.
- Demonstrate the ability to work as a team to perform emergency care.
- Identify the five links in the Adult and Pediatric Cardiac Chain of Survival and identify the importance of each.
- Recognize the signs of a heart attack.
- Identify the steps for caring for a victim of a heart attack.
- Identify signs and symptoms of cardiac arrest.
- Demonstrate how to safely and effectively perform one-rescuer CPR and two-rescuer CPR.
- Demonstrate how to use an automated external defibrillator (AED).
- Identify precautions for using an AED.

PROGRAM PARTICIPANTS

Participants in this course may represent a broad range of backgrounds and differ in levels of education and experience. Participants may include members of an emergency response team, such as Lifeguards, public safety personnel, medical personnel and other employees with a duty to respond. Participants may be taking this training outside the traditional academic environment of a high school, college or university. Successful instructors understand participants' background and motivation and may modify their teaching style (not the course) accordingly.

- Participants could represent a broad range of backgrounds.
- They may differ in age or levels of maturity.
- They may differ in levels of education or experience.
- They are likely taking these courses to fulfill employment requirements.
- They may be taking these courses to provide for the safety and well-being of their friends, family and community or for personal satisfaction.

PROGRAM PREREQUISITES

Current certification in CPR/AED for Professional Rescuers, or certification expired by no more than 2 years, is a requirement for participation in the CPR/AED for Professional Rescuers review course.

PROGRAM COURSES AND MODULES

The CPR/AED for Professional Rescuers course includes professional-level training to care for adults, children and infants suffering from breathing or cardiac emergencies. The following optional modules can be taught separately or added to any course and do not require participants to gain a CPR/AED for Professional Rescuers certification:

- Asthma Inhaler Training
- Epinephrine Auto-Injector Training
- Bloodborne Pathogens Training
- Administering Emergency Oxygen

PROGRAM DELIVERY METHODS

There are two delivery methods available for the CPR/AED for Professional Rescuers course—classroom and blended learning. The blended learning option combines online learning with in-person skill sessions conducted by a Red Cross-certified instructor. Participants in blended learning courses acquire the same knowledge and skills as those in traditional classroom training courses.

PROGRAM INSTRUCTIONAL DESIGN

Classroom Course Design

The lesson plans employ a variety of methods to meet participants' needs for consistent, high-quality instruction and accurate information. To help participants acquire new information, build correct psychomotor skills and develop decision-making and problem-solving skills, a variety of interactive activities are integrated into the lessons along with videos and skill demonstrations, skill sessions, traditional lectures and guided discussions.

The lecture points included in the lesson plans represent the fundamental concepts and specific content that instructors must communicate for participants to meet the associated learning objectives and successfully complete the skill sessions. The lecture points are written so they can be read aloud. The instructor can also rephrase the lecture points to fit his or her natural speaking style. The course presentation (similar to a PowerPoint presentation) includes the lecture points and visual aids to support participants' acquisition of the material.

Guided discussions and activities are designed to correspond with the lesson objectives and reinforce essential information that participants need to know. Guided discussions and activities allow the instructor the opportunity to assess participants' understanding of the material. The activities are to be conducted as designed and may not be changed or omitted. However, modifications can be made to accommodate participants with disabilities. For more information, see the *Americans with Disabilities Act (ADA) Resource Guide for Conducting and Administering Health and Safety Courses* available at the American Red Cross Learning Center.

Video segments enliven the program by conveying key concepts and providing uniformly consistent explanations and demonstrations of skills. During the skill sessions, participants may use skill sheets (available on Instructor's Corner and in the participant's handbook) as a guide. Skill charts and skill assessment tools for the instructor's use during the skill sessions are located in the instructor's manual at the end of all lessons that include skill sessions.

Skills can be quickly forgotten. The more participants have the opportunity to practice, the better their skill performance and retention will be.

Instructor's Note: *For reasons of educational quality and participant safety, the following skills taught in many American Red Cross courses are practiced only on a manikin and never on a real person: ventilations, chest compressions and AED pad placement.*

Participants demonstrate competency throughout the courses in the CPR/AED for Professional Rescuers program by actively participating in activities, guided discussions, skill sessions, skill drills and Putting It All Together scenarios that conclude most lessons in the program. A written exam is required for CPR/AED for Professional Rescuers participants.

Blended Learning Course Design

In the blended learning courses, the online component has been designed to instruct participants in the knowledge-based aspects of the CPR/AED for Professional Rescuers course, along with introducing them to the skills they will practice and master during the instructor-led portion of the training. Instructors should conduct brief, guided discussions on key online learning topics to ensure participants' questions are answered.

PROGRAM MATERIALS

Participant Resources

All participant resources are available for purchase on the Red Cross Store and on Instructor's Corner. In addition, all participant resources are available as downloadable digital versions from redcross.org.

American Red Cross CPR/AED for Professional Rescuers Participant's Handbook

The *CPR/AED for Professional Rescuers Participant's Handbook* has been designed to simplify learning and understanding of the material. The handbook reinforces key points from the lecture portions of the course and contains skill sheets. It serves as the required in-class text and is used as a reference tool after the course is complete. Participants should have access to their own handbook throughout the course in either digital or print format. When using a digital version, a tablet or laptop should be used to ensure proper viewing (the handbook should not be displayed on a cell phone).

Online Content for CPR/AED for Professional Rescuers Blended Course

In the blended learning courses, the online component has been designed to instruct participants in the knowledge-based aspects of the CPR/AED for Professional Rescuers program, along with introducing them to the skills they will practice and master during the instructor-led portion of the training. Instructors should conduct brief, guided discussions on key online learning topics to ensure participants' questions are answered.

See Instructor's Corner for additional details on the Blended Learning program, including the blended learning *CPR/AED for Professional Rescuers Instructor's Manual*.

Instructor Resources

American Red Cross CPR/AED for Professional Rescuers Instructor's Manual

The *CPR/AED for Professional Rescuers Instructor's Manual* is required to conduct the CPR/AED for Professional Rescuers course. The manual is available to purchase or as a digital download on Instructor's Corner.The manual is divided into three sections:

- **Section A: Administration** contains information needed to conduct the courses in the CPR/AED for Professional Rescuers program, including a program overview, instructor requirements and responsibilities, information about setting up and running the courses, requirements for successful course completion and teaching strategies.
- **Section B: The Courses** contains the course outlines and lesson plans. The lesson plans provide the primary points to be covered in each lesson, as well as guidelines for activities and skill sessions.
  - Skill charts and skill assessment tools must be used by the instructor to provide guidance and highlight important actions during skill practice and response scenarios, as well as for assessment during the final practical skills assessment. Skill charts identify the competencies for each skill, the critical actions that must be completed.
  - When using these skill charts and assessment tools for assessment, participants must meet the criteria listed at the proficient level on the skill assessment tool to be checked off as passing. A "Proficient" rating indicates that the participant met the criteria for the skill. A "Not Proficient" rating indicates that the participant did not meet the criteria for the skill.
- **Section C: Appendices** includes supplemental materials to support conducting the courses in the CPR/AED for Professional Rescuers program. Many of these materials can also be accessed on Instructor's Corner.

The American Red Cross Learning Center

The American Red Cross Learning Center (LMS) provides functionality for managing and executing training and learning programming for American Red Cross Health and Safety Services programs. The Learning Center manages and tracks all Red Cross training for participants and instructors and maintains certification data.

Red Cross Instructors are required to access the Learning Center to ensure that their instructor profile information is current and up-to-date. Instructors are strongly encouraged to enter their course record information directly into the Learning Center. For information on how to access and use the Learning Center, please visit Instructor's Corner.

American Red Cross Instructor's Corner

Instructor's Corner is an instructor's resource containing program information, policies, resources and teaching tools. Instructor's Corner also contains information related to other American Red Cross programs, as well as the latest news about the Red Cross. The CPR/AED for Professional Rescuers program materials on Instructor's Corner include:

- Instructor Bulletins
- Course fact sheets
- Recertification information
- Information about reporting teaching activity
- Occupational Safety and Health Administration (OSHA) information
- Equipment information
- Documents supporting course delivery and classroom activities
- Written exams and answer sheets
- Digital versions of instructor and participant course materials
- Course presentations
- Streaming video segments to support course delivery
- Administrative policies and procedures
- How-To Guides and resources to support administrative processes
- Information about other Red Cross training and education programs
    - Frequently Asked Questions about the CPR/AED for Professional Rescuers program
- About the Science sections, including expert answers to technical questions, reviews and advisories from the American Red Cross Scientific Advisory Council

Course Presentations

The following course presentations to support the CPR/AED for Professional Rescuers program are available:

- CPR/AED for Professional Rescuers Instructor-Led course presentation
- CPR/AED for Professional Rescuers Blended Learning course presentation

Similar to a PowerPoint presentation, each course presentation is an in-class visual aid that is projected onto a screen or viewing area. Instructors click through the presentation slides as they progress through the lessons.

The course presentations include lecture points, imagery and the required course video segments. Slide references are included in the lesson plan to assist in teaching along with the course presentation. The course presentation:

- Provides visual reinforcement of key points made during lectures and guided discussions.
- Provides visual aids that support activities and scenarios.
- Provides an alternate method of showing the video segments that support the course.
- Helps you deliver information in a more dynamic way by reducing dependence on the instructor's manual and allowing you the freedom to stand up and move around during the lesson.

Before conducting the course, become familiar with the presentation software and test the display of the system to be used. It is recommended that you have back-up copies of the presentation in case technical difficulties occur.

The course presentations are available to download from Instructor's Corner. The presentation is saved in PDF format. To view the presentation, save the file to your computer and double click on the PDF icon to open it. Additional directions for using the course presentation are available on Instructor's Corner. For online viewing (i.e., streaming from Instructor's Corner) a high-speed internet connection and one of the following HTML5 based browsers are required:

- Internet Explorer 9 or higher
- Chrome 35 or higher
- Firefox 37 or higher
- Safari 7 or higher

The course presentations that support the CPR/AED for Professional Rescuers program are also available on the CPR/AED for Professional Rescuers Program DVD, which is available for purchase on the Red Cross Store.

Video Segments

The video segments are an integral part of the course. Instructors are required to use the video segments because they contain important information about key concepts and skills to help ensure the course objectives are met. The courses in the CPR/AED for Professional Rescuers program cannot be conducted if the video segments are not available. They are included on the CPR/AED for Professional Rescuers program DVD, which is available for purchase on the Red Cross Store. The video segments are also available for streaming from Instructor's Corner and embedded in the course presentations.

BEING AN AMERICAN RED CROSS INSTRUCTOR

INSTRUCTOR REQUIREMENTS

Eligibility to Teach the Courses in the CPR/AED for Professional Rescuers Program

CPR/AED for Professional Rescuers instructors are eligible to teach the following Red Cross courses and modules:

- CPR/AED for Professional Rescuers
- Asthma Inhaler Training
- Epinephrine Auto-Injector Training
- Bloodborne Pathogens Training
- Administering Emergency Oxygen (requires basic-level certification)

Maintaining Your Instructor Certification

Your certification as an instructor is valid for 2 years. To maintain certification as an instructor, you must:

- Teach or co-teach at least one CPR/AED for Professional Rescuers course of record during your 2-year certification period.
- If you are a Lifeguarding Instructor, successfully complete the Lifeguarding Instructor/Instructor Trainer Review course prior to your instructor certification expiration date.
- If you are a CPR/AED for Professional Rescuers Instructor only (not a Lifeguarding Instructor), you must maintain a basic-level CPR/AED for Professional Rescuers certification or equivalent.
- Complete all applicable course updates prior to the update deadline.

Instructor's Note: *As an instructor, you have a responsibility to monitor and maintain your American Red Cross Learning Center profile. You must periodically verify that your contact information is accurate in the American Red Cross Learning Center, including a current email address, phone number and mailing address. The American Red Cross Learning Center will automatically track the expiration date of your instructor certification. Monitoring your profile and certifications within the system allows you to take appropriate actions to stay current in your certification.*

Eligibility to Teach Other American Red Cross Programs

American Red Cross CPR/AED for Professional Rescuers instructors may qualify to teach additional Red Cross basic-level courses after successful completion of an instructor bridge course.

Available instructor bridge course options (depending on program):

1. Online bridge course
2. In-person or blended learning bridge course

Additional basic-level certifications may be necessary in addition to completing an instructor bridge course. The Instructor Bulletin for the specific program area lists the bridging options available as well as qualification requirements. Please check the specific program area of Instructor's Corner for more information on any requirements needed to complete an instructor bridge.

INSTRUCTOR RESPONSIBILITIES

Your responsibilities as a certified Red Cross instructor include:

- Providing for the health and safety of participants by always ensuring:
  - Manikins have been properly cleaned according to "Recommendations on Manikin Decontamination," which is available on The American Red Cross Learning Center.
  - Course equipment is clean and in good working order.
  - Participants are aware of health precautions and guidelines concerning the transmission of infectious diseases.
  - All participants have the physical ability to perform the skills and know to consult you if they have concerns about their physical ability to do so.
  - The classroom practice areas are free of hazards.
- Being familiar with and knowing how to effectively use program materials and training equipment.
- Informing participants about knowledge and skills evaluation procedures and course completion requirements.
- Creating a non-threatening environment that is conducive to achieving the learning objectives
- Preparing participants to meet the course objectives.
- Providing participants an opportunity to evaluate the course.
- Adapting your teaching approach to match the experience and abilities of the participants, identifying participants who are having difficulty and developing effective strategies to help them meet course objectives.
- Supervising participants while they are practicing course skills and providing timely, positive and corrective feedback as they learn.
- Evaluating participants as they perform skills, focusing on critical performance steps as described in the skill charts.
- Being prepared to answer participants' questions or knowing where to find the answers.
- Administering and scoring the final written exam.
- Conducting courses in a manner consistent with course design.
- Teaching courses as designed—following all course outlines, policies and procedures as noted in the instructor documents for the course.
- Maintaining a current personal profile in the American Red Cross Learning Center.
- Submitting completed course records and reports to the American Red Cross Learning Center within 10 working days of course completion.
- Being familiar with and informing participants of other Red Cross courses and programs.

- Representing the Red Cross in a positive manner and providing a positive example by being neat in appearance and not practicing unhealthy behaviors while conducting American Red Cross courses.
- Abiding by the obligations in the Instructor's Manual, Instructor Agreement and Code of Conduct and, if applicable, the *Authorized Provider* or *Licensed Training Provider Agreement*.
- Promoting volunteer opportunities available through the Red Cross.

MAINTAINING CONSISTENT TRAINING STANDARDS

Quality, consistency and standardized delivery of courses are priorities of the American Red Cross. Red Cross courses are designed with standardized instructor outlines and lesson plans based on well-defined objectives to provide an optimal learning experience for the variety of participants who participate in the programs. To meet the objectives of the course and ensure standardized course delivery, the course outline and lesson plans must be followed.

Facility availability or constraints, specific instructor-to-participant ratios, equipment-to-participant ratios or participant needs may require adapting the outline while still maintaining the educational progression of the course. Adapting the training does not mean that you can add, delete or change the content. The course is laid out in a progressive way to allow the participants to learn in a predictable order as well as have sufficient time to practice. The course outline in **Section B** should be used when teaching the course.

SETTING UP AND RUNNING COURSES

COURSE LENGTHS AND SCHEDULES

Classroom

The CPR/AED for Professional Rescuers course is designed to be taught in approximately 6 hours. The times allotted in the lesson outlines include the minimum time required for covering the content and class activities and do not include breaks.

The course length is based on:

- A ratio of 6-10 participants to 1 instructor
- A minimum of 1 manikin and 1 AED training device for every 2 participants

Increasing one or more of these ratios may increase the pace of the skills practice sections of the course but will not reduce overall course time significantly. Therefore, courses are to be scheduled and expected to run for the designated course length, at a minimum.

The lesson plans in this manual must be followed as closely as possible, but facility constraints, specific instructor-to-participant ratios, equipment-to-participant ratios and participant needs (e.g., breaks) may increase course length. Other factors that may influence lesson planning include the following:

- Classroom availability and layout
- Equipment availability
- Number of participants
- Skill level of participants
- Number of instructors

CLASS SIZE AND INSTRUCTOR-TO-PARTICIPANT RATIOS

The CPR/AED for Professional Rescuers course is designed for a ratio of 6-10 participants to one instructor. If your class is larger, you may not be able to properly supervise the course activities and skill sessions in the allotted time. Likewise, if there are fewer than the minimum number of participants, you may not be able to conduct course activities and skill sessions properly to meet course objectives.

If there are fewer than 4 participants, additional people certified in CPR/AED for Professional Rescuers must be added throughout the course to achieve the course objectives through practicing skills, scenarios, testing and other course activities. The instructor cannot act in the role of the other rescuer or victim in the skill practices and scenarios. At no time should a single instructor teach a course with fewer than 4 participants.

If the course has more than 10 participants, another instructor should co-teach and the course may need to be extended. At no time should a single instructor attempt to manage a course with more than 10 participants.

CLASSROOM SPACE

The CPR/AED for Professional Rescuers course requires a classroom space suitable for lecture, small group activities, role-playing activities, video presentations and skill sessions. The classroom should provide a safe, comfortable and appropriate learning environment. The room should be well lit, well ventilated and have a comfortable temperature.

Instructor's Note: *If the area where skill sessions will be conducted is not carpeted, provide knee protection (such as folded blankets or mats) for use by participants or request that they bring their own padding materials.*

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

The specific materials, equipment and supplies needed for each lesson are included at the beginning of the lesson. Instructors should have the specific equipment needed for the lesson ready prior to the start of the lesson. Supplies that instructors should have available include the following:

Equipment:

- CPR Manikins
  - Adult and infant manikin (one for every two participants)
  - Child manikin (optional, one for every two participants)
- Resuscitation Masks
  - Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)
- Bag-valve-mask (BVM) rescuscitators
  - Adult BVM (one for each adult manikin)
  - Infant BVM (one for each infant manikin)
  - Child BVM (optional; one for each child manikin)
- AED Training Devices with adult and pediatric AED pads (one for each set of adult and infant manikins)
- Timing device such as a stop watch or smartphone with a stop watch feature (one per instructor)

Supplies:

- Latex-free nitrile gloves
- Manikin decontamination supplies (decontaminating solution, 4'' × 4'' gauze pads, soap and water, brush, basins or buckets, latex-free nitrile gloves and any accessories that may be recommended by the manufacturer of the manikin)
- Blankets and/or mats (optional)
- Name tags (optional, one for each participant)
- Pens, pencils (one for each participant)

Technology:

- Desktop/laptop computer or tablet with power source and speakers, projector and projection screen/area or large monitor, **OR**
- Television with a DVD player (optional)
- Extension cord and grounded plug adapter, if needed

Course Materials:

- *CPR/AED for Professional Rescuers Instructor's Manual*
- *CPR/AED for Professional Rescuers DVD* or CPR/AED for Professional Rescuers Course Presentation
- *CPR/AED for Professional Rescuers Participant's Handbook (one for each participant, print or digital format. See guidance on pg. X for digital requirements)*
- American Red Cross Instructor Identification
- Participant Skill Sheets (one for each participant; see Participant's Handbook)
- Instructor Skill Charts and Skill Assessment Tools (one for each participant; see Participant's Handbook)
- Final Written Exams A and B (one for each participant; available on Instructor's Corner)
- Final Written Exam Answer Sheets (two for each participant; see Appendix H)
- Final Written Exam Answer Keys (Exams A and B; see Appendix H)
- Extra copies of Final Written Exam (Exams A and B) and Answer Sheets

Instructor's Note: *Equipment used during the course, including American Red Cross training materials and a wide range of Red Cross retail products are available on the Red Cross Store (redcrossstore.org).*

CLASS SAFETY AND SUPERVISION

As a Red Cross instructor, it is important for you to make the teaching environment as safe as possible and to protect participants from health risks. The materials and procedures for teaching American Red Cross courses are designed to:

- Limit the risk of disease transmission.
- Limit the risk of one participant injuring another when practicing skills with a partner.
- Limit the risk that the activity involved in skill practice could cause injury or illness.

Participants who feel they are at risk for injury or illness may become distracted. These same feelings may also affect your ability to teach. It is important to talk with participants who feel they are at risk and inform them of the precautions that are taken to limit and reduce the risk for injury or illness. There are several steps you can take to help increase class safety:

- **Prepare.** Consider possible hazards and manage safety concerns before a course starts. Often, you can foresee hazards and take steps to eliminate or control them long before participants arrive.
- **Arrange for assisting instructors, co-instructors or both.** Assisting instructors and co-instructors can help decrease risks by giving more supervision and reducing the instructor-to-participant ratio. They also increase participation and learning by providing more one-on-one attention to participants. When using assisting instructors or co-instructors, clearly define their roles and responsibilities. Doing so will help eliminate confusion and lapses in supervision. Remember that you are ultimately responsible for your participants' safety. To determine your staffing needs, consider the different ages and the individual abilities of participants. If your course has a large number of participants, you will need additional help.

Health Precautions for Course Participants and Considerations for Participants with Disabilities

Provide participants and, if necessary, their parents or guardians information about health requirements and safety before the course begins.

People with physical disabilities or certain health conditions may hesitate to take part in skill sessions. You should suggest that these participants (or, if the participant is a minor, the participant's parent or guardian) discuss their participation with a healthcare provider. Ask participants to tell you in advance if they are concerned about their ability to perform a specific skill.

Inform participants who cannot demonstrate the skills taught in the course that they cannot receive a Red Cross course completion certificate. Encourage them to participate to the extent possible. The Red Cross advocates that instructors adjust activity levels to facilitate learning and to help meet course objectives when possible.

As a Red Cross instructor, you must attempt to protect participants against health risks, and you must do your best to safeguard participants against any risk of injury while they are engaged in skill practice. Guidance for course modification for a participant with a disability is provided in the *Americans with Disabilities Act (ADA) Accommodation Resource Guide*, located on Instructor's Corner.

Additional Adult Supervision—Teaching Youth

The safety of all Red Cross course participants is paramount. For courses with participants younger than 18 years, ensuring participant safety includes providing adequate adult supervision. (Some states may define an adult as a person older or younger than 18 years. Follow local regulations.)

It is recommended that whenever a Red Cross course, activity or event is conducted involving youth participants, two adults should always be present at the facility to ensure participant safety. For Red Cross courses, the first adult would be the course instructor. The second adult might be a co-instructor, another participant or, in the event that the course audience is entirely comprised of youth, an instructor teaching another course in the facility or other responsible facility staff. Facilities should consider safety plans for youth participants that include the time before and after class.

CHAPTER 4

TEACHING SO THAT EVERY PARTICIPANT CAN LEARN

PREPARING TO TEACH

Before you teach a lesson, you should read the lesson plan; review appropriate reference materials (such as skill sheets, skill assessment tools and the participant's handbook); and gather necessary materials, equipment and supplies. The lesson plan contains the following:

- Lesson Name
- Lesson Length (the estimated amount of time needed to conduct the lesson)
- Guidance for the Instructor (objectives the instructor must meet in order to complete the lesson and meet the course requirements)
- Lesson Objectives (statements describing what participants will know or be able to do after successfully completing the lesson)
- Materials, Equipment and Supplies (a list of the materials, equipment and supplies needed to teach the lesson)
- Session Preparation (tips on how to prepare for the lesson)
- Teaching Tips (teaching tips to remember)
- Topics (the major concepts to be covered in the lesson)
- Instructor's Notes (instructions and information related to conducting the lesson effectively)
- About the Science Notes (more in-depth information about the scientific basis for the information and skills taught in the lesson)
- Lesson Wrap-Up (Assignments and end of chapter questions to provide participants with the opportunity to review what they have learned)

WORKING WITH YOUR AUDIENCE

Understanding your audience will help you engage your participants. If you can relate to your audience, you will be better able to provide a positive learning environment and maintain participants' self-esteem. In addition, understanding your audience allows you to help participants associate classroom information with personal experiences, which in turn can make guided discussions and activities more meaningful. Being aware that participants may come to the class with different levels of understanding and skill can help you better meet each participant's needs.

USING FACILITATION TECHNIQUES

As an instructor, you will use facilitation techniques to help participants acquire necessary information. Facilitation is based on the concept of pushing, pulling and balancing the flow of information. *Push skills* have to do with information flowing mostly from instructor to participants. *Pull skills* are used when the instructor engages participants using approaches that actively involve the participants in their own learning, such as by asking questions or facilitating interactive activities and guided discussions. *Balance skills* involve managing the push and pull of information to keep the learning process moving and to maximize learning.

When using facilitation techniques, keep in mind the following points:

- Maximize class interaction.
- Use pull skills to engage participants in classroom discussions and to keep discussions on topic or to provide necessary information. Pull skills are also useful for soliciting responses from different participants to prevent one participant from dominating the discussion.
- Promote an open exchange of information and ideas by asking open-ended questions (i.e., questions that begin with "who," "what," "when," "where," "why" or "how"), waiting for responses, listening, managing silence and referring participants' questions back to the group for discussion and resolution.
- Ensure effective discussion sessions by giving and receiving feedback, maintaining an open perspective, creating a positive environment conducive to learning, staying on topic and managing time effectively.

Facilitation techniques allow you to evaluate participants' knowledge and understanding throughout the course. In addition, facilitation:

- Gives you the opportunity to evaluate participants' needs and focus the activities on those needs.
- Allows you to build on participants' previous knowledge and skills.
- Allows participants to associate previous knowledge and skills with new information.
- Allows participants to learn from one another.
- Keeps participants engaged and interested throughout the course.

TEACHING PARTICIPANTS WITH DISABILITIES

You may have participants in your course who have disabilities or other health conditions. You must be prepared to provide participants with disabilities every opportunity to succeed, including making appropriate modifications to the way the course is conducted, if necessary. For example, you may need to increase the amount of time that you spend with the participant or allow frequent rest periods. When a participant with a disability can successfully meet course objectives, a course completion certificate should be issued. If a participant cannot meet the course objectives because of a disability, this should be communicated to the participant as early as possible.

Physical Disabilities

When helping a participant with physical disabilities to acquire the skills necessary for successful course completion, focus on the critical components of the skill that are needed to successfully meet the objective. Always teach to the standards set forth, but be aware that participants may modify how a skill is accomplished and still meet the objective, which allows them to successfully complete the course. See the *Americans with Disabilities Act (ADA) Accommodation Resource Guide for Conducting and Administering Health and Safety Services Courses* on Instructor's Corner for more information.

Learning Disabilities

People with a learning disability may tell you that they have not done well in educational settings or testing situations in the past. If you believe that a participant has a learning disability, discuss this with the participant privately without attracting the attention of the rest of the class.

Many learning disabilities affect a person's ability to acquire information through reading. Participants with limited English proficiency may also struggle with reading. You may also observe behaviors that suggest that a participant has difficulty with reading. For example, you may notice that a participant is not able to follow along with written material. The participant may offer an excuse, such as saying that they forgot their glasses. Modifications (such as reading material to participants, rather than having participants read the material to themselves) will allow the participant to participate fully in class. When administering the written examination you may administer an oral exam instead. Please see Instructor's Corner for guidance on giving oral exams.

STRATEGIES FOR HELPING PARTICIPANTS TO ACQUIRE INFORMATION

Delivering Information Through Lecture

Instructor presentation, or lecture, is sometimes the most effective way to deliver information. However, because lecturing is a passive way for participants to learn, it should be used sparingly. Too much lecturing causes participants to become disengaged, resulting in less effective learning.

In this instructor's manual, content that is to be delivered through lecture is designated with the lecture icon. Lecture points contain information that must be communicated to participants and are written so that they can be read aloud from the instructor's manual. You may rephrase lecture points to fit your own natural speaking style; however, if you choose to rephrase lecture points in your own words, it is important that you fully understand the course content so that you can rephrase without changing the meaning of the lecture point.

Participants who are visual learners often benefit from seeing the lecture points in written form. If you are using the course presentation, the main points for the lecture are included on the accompanying slide. If you are not using the course presentation, it is often helpful to write bullet points on a whiteboard or easel pad before the class to facilitate the learning process.

When delivering a lecture, it is important to be dynamic and engaging. One way to accomplish this is to prepare for interactive lectures. An interactive lecture will have opportunities for two-way communication between participants and the instructor as well as among the participants themselves. To prepare an interactive lecture, keep the following suggestions in mind:

- Ensure that you understand the purpose of the lecture and plan accordingly.
- Feel free to rephrase the lecture points to fit your natural speaking style.
- Prepare lecture notes so that you can avoid reading from the instructor's manual while lecturing.
- Maintain a learner-centered focus.
- Use analogies to help create a bridge between lecture material and participants' experiences.
- Strive for interaction with participants during lectures.
- Encourage participants to add to the lecture.
- Keep the lecture moving; avoid long stories of personal experiences.

Using Guided Discussion

Guided discussions are another way of conveying and reinforcing course content. In this instructor's manual, content that is to be delivered through guided discussion is designated with the guided discussion icon. Guided discussions serve to:

- Monitor and evaluate participants' level of understanding.
- Increase comprehension (i.e., when one or more participants do not understand something, the discussion may offer an alternative explanation that clarifies the information).
- Allow participants to use existing knowledge and experience as a springboard for acquiring new information.
- Focus participants' attention on the topic.
- Ensure that all required content for the topic is covered.

The ability to introduce questions that prompt discussion is an important aspect of facilitating good discussions. As you lead question-and-answer sessions during the lesson, ask for volunteers to provide answers. Waiting up to 10 seconds for an answer can help encourage hesitant participants to answer. Call on participants by name if you are having a hard time finding volunteers. However, do not insist that all participants provide answers. Participants can still benefit from this approach to learning, even if they appear reluctant to answer questions themselves.

Ideal responses are provided for each question. Answers labeled "Responses could include" are examples of one or more possible correct answers. For these questions, an example of a correct answer is provided in case participants are unable to come up with the correct answer(s) on their own. Answers labeled "Responses should include" are the correct answer(s) that must be covered. In this case, the instructor must provide any or all of the answers if participants are unable to come up with the correct answer(s) on their own.

Using Video Segments

Video presentations, designated with the icon in this instructor's manual, are used to demonstrate skills, convey key concepts or support activities.

Conducting Activities

Activities are included throughout the course to give participants the opportunity to apply knowledge and solve problems. Many activities allow participants to associate course concepts with their own personal experience. In this instructor's manual, activities are designated with the activity icon.

Activities done as a group promote interaction among participants. *Small-group activities* require two to four participants to work together to solve a problem or complete an activity. Small-group activities allow participants to use one another's knowledge to solve problems and learn from others' experiences. *Large-group activities* involve a larger group or the entire class. Large-group activities provide the opportunity to exchange ideas, discuss problems and think about the many ways to solve a problem.

When conducting group activities, you should specify both the size and makeup of the groups. Form groups using the fewest number of participants necessary to conduct the activity. Form new groups for each activity. Changing group members for each activity promotes class cohesion, avoids situations in which one or more participant feels left out and keeps friendships from taking precedence over learning. Using an arbitrary selection criterion each time you form groups will help you vary group makeup and give participants the chance to interact with many different classmates. For example, you could form groups by asking participants to:

- Find the person whose birthday is closest to their own and form a pair.
- Find the person who lives the farthest from them and form a pair.
- Find the other people in class whose birthdays are in the same season (winter, spring, summer or fall) as their own and form a group.

Conducting Scenarios

Many activities in American Red Cross courses are scenario-based. Scenario-based activities focus on developing critical thinking, problem solving and communication skills and give participants an opportunity to apply recently acquired knowledge and skills. The scenario typically begins with a description of the situation and scene, and prompting is used to facilitate participants' progression through the scenario. Once the scenario is complete, a debriefing or review session may be held to reinforce key points, evaluate performance or both.

To conduct scenario-based activities, have participants form groups, distribute any supporting materials to each group and then communicate the set-up for the scenario used. Participants will then take on various roles (e.g., rescuer, victim, additional responder) and work together to complete the scenario. (Ensure that participants switch roles between scenarios so that every participant has the opportunity to play each role at least once.) The groups complete the scenario at the same time. During the scenarios, your focus should be on helping participants apply the knowledge and skills covered in the course to the simulated emergency situation. Step in and provide guidance only if absolutely necessary.

Although participants are expected to act on the basis of their training, they should be encouraged to work together and use reference materials (such as skill sheets or the participant's handbook) as needed. Because the purpose of the scenario is to simulate responding to a real emergency situation, the instructor should give prompts according to the scenario. These prompts provide only the information necessary for the rescuer and/or assisting responder(s) to make decisions and provide care. If the rescuer and/or assisting responder(s) have difficulty determining the correct next step, the instructor should provide corrective feedback. Because the skills may still be relatively new, it is okay if participants hesitate, start and stop, self-correct or otherwise momentarily interrupt the skill during scenarios.

To achieve certification, participants must successfully participate in all "*Putting It All Together*" scenarios. Successful participation means that a participant went through each scenario (as the rescuerand assisting responder) with minimal guidance from the instructor.

CONDUCTING EFFECTIVE SKILL SESSIONS

INSTRUCTOR RESPONSIBILITIES DURING SKILL SESSIONS

Skill sessions are a critical component of most American Red Cross courses. During the skill sessions, participants are learning and perfecting skills. For maximum efficiency and the best learning outcomes, skill sessions should be well organized and well managed. For a successful skill session, instructors must provide direction and instruction, ample practice time, encouragement and positive reinforcement, and corrective feedback.

During skill sessions, instructors are responsible for:

- Demonstrating the skill or skill components, guiding participants through the skill, or both.
- Keeping the session running smoothly.
- Providing sufficient time for all participants to practice the skill.
- Ensuring that participants can see the video monitor when appropriate.
- Helping participants form pairs, if necessary, and making sure that participants have the necessary equipment for skill practice.
- Closely supervising participants as they practice.
- Identifying errors promptly and providing appropriate feedback to help participants improve.
- Checking each participant for skill competency.
- Maintaining a safe, positive learning environment.
- Encouraging participants to improve and maintain their skills.
- Provide global and individual feedback to course participants.

During every skill session, circulate to monitor participants' progress and provide assistance and corrective global and individual feedback as necessary.

HOW PARTICIPANTS LEARN SKILLS

When teaching skills, keep the following points in mind:

- Course skills are complex. Participants often have some difficulties when they first begin.
- The skills taught will likely be new to most participants; therefore, participants may require frequent one-on-one attention.
- Skills are learned by hands-on practice. Immediate success in demonstrating the skill is unlikely. Refinements in technique take time and practice. Allow participants multiple opportunities to practice skills.
- Skills require a defined sequence of movements. Participants should consistently follow this sequence when learning skills.
- Learning times for each skill differ, because some skills are easier than others.
- Participants have different learning rates. Take individual differences into account.
- Skills, especially the individual components, are quickly forgotten. Frequent practice improves skill retention.

Instructor's Note: *Allow participants sufficient time to practice the skill until they are able to meet performance criteria. The length of the skill session will vary based on the complexity of the skill, the instructor: participant ratio and whether or not participants need to take turns using equipment (e.g., manikins).*

HOW PARTICIPANTS LEARN SKILLS

When teaching skills, keep the following points in mind:

- Course skills are complex. Participants often have some difficulties when they first begin.
- The skills taught will likely be new to most participants; therefore, participants may require frequent one-on-one attention.
- Skills are learned by hands-on practice. Immediate success in demonstrating the skill is unlikely. Refinements in technique take time and practice. Allow participants multiple opportunities to practice skills.
- Skills require a defined sequence of movements. Participants should consistently follow this sequence when learning skills.
- Learning times for each skill differ, because some skills are easier than others.
- Participants have different learning rates. Take individual differences into account.
- Skills, especially the individual components, are quickly forgotten. Frequent practice improves skill retention.

APPROACHES TO PRACTICING SKILLS

Orienting participants to the skill session will help them get started quickly and practice more efficiently.

Instructor-Led Practice

In the instructor-led practice approach, the instructor guides participants through each step of the skill while checking on participants to ensure that all in the group complete the steps properly as the instructor calls them out. Instructor-led practice can be used to focus on a skill or part of a skill. This approach is particularly useful for introducing new skills that build on previously learned skills, or when participant safety is a concern.

When you lead the practice, position yourself so that you can see everyone. It may help to have participants' heads pointing in the same direction and their partners in the same relative position next to them. Being able to see everyone allows you to monitor skill performance as well as ensure participant safety.

Partner-Based Practice

A partner-based practice approach is useful for providing participants with experience in giving care to a real person. One participant acts as the injured or ill person while the other gives care. When using a partner-based practice approach:

- Allow participants to choose their partners. Some participants may be reluctant to practice with participants of the opposite gender. Instructors should accommodate participants' preferences.
- Ensure that participants exchange roles so that each participant has a chance to practice the skill.
- Do not allow participants to engage in horseplay, which can lead to injury.

Instructor's Note: *For reasons of educational quality and participant safety, the following skills taught in many American Red Cross courses are practiced only on a manikin and never on a real person: ventilations, chest compressions and automated external defibrillator (AED) pad placement.*

Reciprocal Practice

In a reciprocal practice approach, participants working in pairs or groups observe each other's performance and provide guidance and feedback. Participants should demonstrate the skill correctly without assistance from their partners. For this approach to be effective, the instructor must clearly identify the performance criteria. During reciprocal practice, move among participants and observe to ensure that they are practicing the skills correctly and are receiving appropriate feedback from their partners. Provide feedback as appropriate and assistance as needed.

Instructor's Note: *When using the reciprocal practice approach to skill practice, if you observe that a participant correctly demonstrates the skill from start to finish without assistance and at the level of proficiency indicated on the skill assessment tool, you may check off that person's skill on the Participant Progress Log and let the participant know that no further demonstration of that skill is required.*

Video-Based Practice

In American Red Cross courses, video may be used in different ways to support the skill sessions.

Watch-Then-Practice

In the watch-then-practice approach to skill practice, participants watch a video segment demonstrating the skill, and then they practice the skill. After showing the video, guide participants through the steps of the skill (referring participants to the skill sheet as needed) and then encourage them to practice independently without assistance. Intervene and provide positive and corrective feedback as needed.

Practice-While-You-Watch

In the practice-while-you-watch approach to skill practice, participants practice the skill along with a video, which provides audiovisual cues. The practice-while-you-watch approach has the following benefits:

- It provides a consistent model demonstration of the skill using a methodical instructional approach.
- It allows the instructor to focus on evaluating skill performance as the participant learns, which in turn allows the instructor to identify and correct errors in technique earlier in the learning process.
- It maximizes the effectiveness of training and increases the time allotted for skill practice.

Skill Drills

Skill drills are used to help reinforce the skills learned up to that point in the lesson and require participants to perform multiple skills in succession. Skill drills provide an immediate opportunity to put the "total picture" into practice.

Putting It All Together Scenarios

Once new skills are learned, additional class activities provide the opportunity to practice newly learned skills as well as use decision-making abilities in various situations. The scenarios help to reinforce learning by drawing on participants' skills and decision-making abilities in various situations. They are also included as a review during which participants can recall and apply the information learned in the course such as: Multiple-rescuer response activities (Putting It All Together Drills).

SETTING UP SKILL PRACTICE SESSIONS

Skill Practice

When arranging the classroom for skill practice, ensure that there is an adequate amount of equipment and supplies for the number of participants in the class. Arrange the skill practice area so that each participant has ample room to view the demonstration (video or instructor), move about, practice the skill, ask questions and receive feedback on his or her performance. Also ensure that you and your fellow instructors can see the participants, move from person to person, and provide feedback and oversight at all times. When using skill sheets, distribute copies of each sheet to each participant to use as a guide or refer participants to the appropriate skill sheet in their participant's handbook. When participants are working in pairs, encourage communication amongst the group and peer-to-peer learning using the skill sheet.

When the participants are practicing on manikins, the manikins' heads should be pointing in the same direction, and all the participants should be in the same position next to the manikins. If the participants are practicing on partners, being able to see everyone allows you to judge skill competency as well as ensure participant safety.

RUNNING SKILL PRACTICE SESSIONS

The instructions in the skill practice sessions are condensed for ease of use. However, during every skill practice session, circulate among groups to monitor progress and provide assistance when necessary. For the benefit of all course participants, provide global feedback (feedback to the entire class) during skill practice to correct common mistakes or commend correct skill practice. Participants should practice the skills until they are able to meet performance criteria. Observe each participant's performance of the skill and provide corrective individual feedback using the skill charts and skill assessment tools.

Helping Participants to Practice Correctly

Practicing a skill aids learning only when the skill is performed correctly. One of your most difficult challenges as an instructor is to ensure that participants practice correctly. Continually monitor all participants, watching for errors participants make while practicing. (A summary of common errors that participants make when practicing the skills in the program can be found in Section C of this instructor's manual and on Instructor's Corner.) Correct any problems you notice as soon as possible using global or individual feedback to prevent participants from continuing to practice incorrectly. While you are working closely with one participant, check others with an occasional glance. Encourage participants to ask questions if they are unsure how to perform any part of a skill.

A positive learning environment is important. Participants perform best when you keep them informed of their progress. When participants are practicing correctly, provide positive feedback that identifies what they are doing correctly. If participants are practicing incorrectly, provide specific corrective individual feedback and have them practice again. Before saying what they are doing wrong, tell them what they are doing correctly. Then, tactfully help them improve their performance.

When giving feedback, keep the following strategies in mind:

- Be specific when providing feedback.
- If the error is simple, explain directly and positively how to correct the skill performance. For example, if the participant is having trouble finding the proper hand placement for CPR, you might say, "The steps leading up to beginning CPR are good; now try finding the center of the chest for compressions. That will be the spot you want to aim for."
- Show the participant what they should be doing. For example, in addition to telling the participant that the hands should be placed in the center of the chest for compressions, demonstrate the proper hand placement.
- Explaining why the skill should be performed in a certain way may help participants remember how to perform the skill correctly. For example, if a participant continually forgets to check the scene for safety as part of the scene size-up, you might remind the participant that failing to check for safety before going to another's aid can put the rescuer at risk for injury or illness as well.
- If a participant has an ongoing problem with a skill, carefully observe what they are doing. Give specific instructions for performing the skill the correct way and lead the participant through the skill. It may help to have the participant state the steps back to you for reinforcement.
- Emphasize the critical performance steps, focusing on those steps that make a difference in the successful completion of a skill.
- Have the participant practice again after the corrective feedback.
- During skill sessions, resist telling participants anecdotes, which can distract or confuse them.
- Remind participants what they are doing right and what they need to improve. Use phrases such as, "Your arms are lined up well, but try to keep them as straight as possible while giving compressions to help ensure that they are effective." Help participants focus on the *critical* components of each skill.

Coaching Versus Prompting Participants

The desired outcome of each skill session is for participants to demonstrate a skill correctly from beginning to end without receiving any assistance from you or a partner or referring to the skill sheet. Because participants learn at different rates, bring different levels of knowledge to the course and learn in different ways, you will most likely need to coach or guide participants as they first learn skill elements. Coaching occurs in the initial phases of skill practice and allows you to give participants information that they need to establish the sequence, timing, duration and technique for a particular skill. When coaching, also known as guided practice, provide information such as the sequence of steps in a skill. Statements such as "Size up the scene" or "Check the person for responsiveness" are examples of coaching.

Once guided practice ends and independent demonstration of a skill begins, you should change tactics and shift to prompting. Prompting allows you to assess the participant's ability to make the right decision at the right time and give the appropriate care. Because participants are expected to demonstrate the skill without any assistance, when you prompt someone, provide only the information necessary for the participant to make a decision and give care. In other words, you should give information only about the conditions found. For example say, "The person is unresponsive" instead of "Call 9-1-1."

Coaching Versus Prompting Participants

Skill Charts and Skill Assessment Tools are provided in the instructor's manual to assist you in evaluating participants' mastery of the skill. Before conducting a course, become familiar with the Skill Charts and Skill Assessment Tools, found at the end of the lesson in which the skill is practiced. Skill Charts provide step-by-step descriptions of the skills participants must master to pass the course. The Skill Assessment Tools summarize the objectives that must be met for correct performance of the skill, along with descriptions of actions that constitute proficiency and non-proficiency. The Skill Assessment Tools include specific depths, ranges, rates, intervals, times and other quantifiable elements by which to assess skill performance. In addition to performing the steps listed in the Skill Chart in the correct order, participants must meet the objectives listed at the proficient level on the Skill Assessment Tool before they can be checked off for a skill. Objectives that are general for the category of skills, as well as specific to the skill, must be met. It is your responsibility as the instructor to observe participants' skill performance to determine whether they are performing the skill correctly with respect to sequence, timing and duration, and whether they are meeting the established skill proficiency criteria.

Instructors must focus on the successful completion of an objective as opposed to perfecting every individual skill. For example, a participant who has arthritis in their hands can still perform effective chest compressions by grasping the wrist of the hand positioned on the chest with their other hand, instead of placing one hand on top of the other and interlacing the fingers. In this example, the participant may continue the course and still receive certification, since the skills needed to prevent injury or save a life may need modification, but the result is the same. Additional information on adjustments to training can be found in the *Americans with Disabilities Act (ADA) Accommodation Resource Guide* found on Instructor's Corner.

Many American Red Cross courses provide Participant Progress Logs to track performance requirements. During skill sessions, check off skills on the log as participants demonstrate proficiency. In order to receive a completion certificate, participants must be able to complete the required skills proficiently without any coaching or assistance.

COURSE COMPLETION

CRITERIA FOR COURSE COMPLETION AND CERTIFICATION

Many agencies, organizations and individuals look to the American Red Cross for formal training that results in certification. *Red Cross certification* means that on a particular date an instructor verified that a course participant could demonstrate proficiency in all required skills taught in the course. *Proficiency* is defined as being able to perform each skill to meet the objective without guidance and apply those skills in a simulated emergency. Achieving certification does not imply any future demonstration of the knowledge or skill at the level achieved on the particular date of course completion.

On successful completion of the CPR/AED for Professional Rescuers course, participants receive an *American Red Cross CPR/AED for Professional Rescuers* certification. Participants can access and print their digital certifications by logging into their account on redcross.org.

To successfully complete a CPR/AED for Professional Rescuers course in the, the participant must:

- Attend the entire course and participate in all class sessions.
- Actively participate in all course activities, including assuming various roles during scenarios
- Demonstrate competency in all required skills.
- Pass the final skills scenarios.
- Successfully pass the final written exam with a minimum grade of 80 percent. If a participant fails to reach the minimum 80 percent on the final written exam, a retest is allowed using the other version of the exam, provided that the learner has passed the practical assessment.

Participants must be told of the requirements when they enroll for the course and again during the course introduction. Remember to provide ongoing individual feedback to participants about their performance throughout the course. Feedback should be ongoing so there are no surprises if a participant's performance is evaluated as unacceptable.

SKILL COMPETENCY

To complete the course requirements and receive a completion certificate, a participant must be able to complete all required skills proficiently without any coaching or assistance. A participant's performance is proficient or not proficient based on the performance of the critical components of a skill that are necessary to meet the objective.

FINAL WRITTEN EXAMS

There are two versions of the written exam and thus, participants have two opportunities to take the written exam. It is acceptable for an instructor/proctor to read the exam to a participant as long as the participant determines the appropriate response.

Participants are required to pass the final written exam in order to receive certification in American Red Cross CPR/AED for Professional Rescuers. The final written exam supports the modules in the CPR/AED for Professional Rescuers course and is available on Instructor's Corner.

Administering Exams

When administering a written exam, you must use the exam provided and may not substitute exam questions. Either exam A or exam B can be used.

To pass the written exam, participants must score 80 percent or better. If a participant does not achieve a score of 80 percent, they have the opportunity to take the alternative exam. Instructors may allow participants who passed the exam to review questions they missed; however, graded answer sheets and written exams must be returned to the instructor.

Instructor's Note: *It is acceptable for an instructor/proctor to read the exam to a participant as long as the participant determines the appropriate response.*

Maintaining Exam Security

Exam security is the instructor's responsibility. It is not recommended that participants be allowed to see the written exam before it is distributed. Instruct participants to put away all course materials and mobile devices. As participants hand in their answer sheets, you may quickly grade the exam (using the answer keys located in Appendix C of this instructor's manual) and return it to the participant. This way, the participant can review any incorrect answers. Be sure to collect all answer sheets and exams before participants leave the class. Exams may be updated periodically and it is the responsibility of the instructor to ensure that they are using the most current exam.

FINAL SKILLS SCENARIOS

Participant skills are evaluated and feedback given throughout the course. The purpose of the final skills scenarios is to ensure that participants have achieved a level of competency and retention of the skills learned in the course.

During the final skill scenario, participants will be evaluated on:

- Individual performance and their ability to achieve skill competencies for the individual skills that they are responsible for.
- Overall team response performance, demonstrating the ability to work effectively as part of a team to prioritize care, take action without following an assigned role and communication with fellow responders.

CRITERIA FOR GRADING PARTICIPANTS

Course participants are assigned one of the following grades:

- **Successful** is entered for a participant who has successfully attended and participated in all class sessions, including activities and skill sessions, and demonstrated proficient competency in all required skills.
- **Unsuccessful** is entered for a participant who has not met course objectives and/or has not successfully attended and participated in all class sessions, including activities and skill sessions, or demonstrated proficient competency in all required skills.
- **Not Evaluated** is entered as the final grade for a participant who is not attending the course with the intention of receiving a completion certificate. This grade should not be substituted for Unsuccessful for a participant who attempts certification but is unable to pass the completion requirements. A participant who chooses to audit must make his or her intent known to the instructor at the beginning of the class.

HANDLING UNSUCCESSFUL COURSE COMPLETION

If a participant does not meet the criteria for course completion and certification, provide the participant with information about course topics and skills where remediation is needed. Advise the participant that they can repeat the course if they choose.

REPORTING PROCEDURES

You must submit a completed electronic Course Record or a Course Record and Course Record Addendum to the American Red Cross Learning Center within the specified time frame (10 days). Instructions for using and submitting course records are available on Instructor's Corner.

ACKNOWLEDGING COURSE COMPLETION

Awarding Certification

On successful completion of the course and after the data has been entered into the American Red Cross Learning Center, each participant will receive a course completion certificate from the American Red Cross Learning Center that indicates the details of course completion and certification. The course completion certificate can be downloaded, printed or shared, as needed. Each American Red Cross certification contains a QR Code that can be used by participants, instructors, employers, or the American Red Cross to validate certificate authenticity.

Continuing Education Units for Professionals

Many course takers are professionals who need continuing education units to maintain a license, certification or both. The American Red Cross is an accredited provider of the International Association of Continuing Education and Training (IACET). IACET's Criteria for Quality Continuing Education and Training Programs are the standards by which hundreds of organizations measure their educational offerings. For additional information, please see The American Red Cross Learning Center or redcross.org.

OBTAINING PARTICIPANT FEEDBACK

Gaining feedback from participants is an important step in any evaluation process. Participants should have an opportunity to tell you what they thought about the course. A copy of the Participant Course Evaluation Form is available on Instructor's Corner. Have participants complete evaluations each time you teach the course. This information will provide you with feedback concerning the course and its instruction and help the Red Cross maintain the high quality of the course.

ADDITIONAL TRAINING OPPORTUNITIES

A wide range of additional training opportunities in safety and preparedness are offered through the American Red Cross. Examples include:

- Swimming and Water Safety
- Lifeguarding and Lifeguarding Instructor
- Water Safety Instructor
- Basic Swim Instructor
- First Aid for High School Coaches
- Anaphylaxis and Epinephrine Auto-Injector Training
- Basic Life Support for Health Care Providers
- Wilderness and Remote First Aid
- Babysitter's Training and Advanced Child Care Training

Refer participants to redcross.org for more information about scheduled courses in their community.

SECTION B | CPR/AED FOR PROFESSIONAL RESCUERS COURSE OUTLINE

L—Lecture/Guided Discussion | **A**—Activity | **V**—Video
SP—Skills Practice

LESSON 1: PROFESSIONAL RESCUERS AND STANDARD PRECAUTIONS

TOPIC	METHOD	TIME
Introduction to the Course	L	5 minutes
The Emergency Medical Services System	L	5 minutes
Legal Considerations	L	5 minutes
Standard Precautions	A, V	10 minutes
Lesson Wrap-Up	L	5 minutes
Total Session Time	**30 minutes**	

LESSON 2: TAKING ACTION

TOPIC	METHOD	TIME
Scene Size-Up	L	5 minutes
Primary Assessment	L, V, SP, A	25 minutes
Moving a Victim	L	5 minutes
Lesson Wrap-Up	L	5 minutes
Total Session Time		**40 minutes**

LESSON 3: CARING FOR BREATHING EMERGENCIES

TOPIC	METHOD	TIME
Breathing Emergencies	L	10 minutes
Giving Ventilations	L, V, SP	30 minutes
Bag-Valve-Mask Resuscitator	A, V, SP	15 minutes
Airway Obstruction	L, V, SP	15 minutes
Lesson Wrap-Up	L	10 minutes
Total Session Time	**1 hour, 20 minutes**	

LESSON 4: CARING FOR CARDIAC EMERGENCIES

TOPIC	METHOD	TIME
Signs and Symptoms of a Heart Attack	L	5 minutes
Cardiac Chain of Survival	L, V	5 minutes
Cardiac Arrest	L	5 minutes
CPR	L, V, SP	40 minutes
Two-Rescuer CPR—Adult and Child	L, V, SP	15 minutes
CPR with Airway Obstruction	L, V, SP	10 minutes
Lesson Wrap-Up	L	5 minutes
Total Session Time	**1 hour, 25 minutes**	

LESSON 5: **USING AN AUTOMATED EXTERNAL DEFIBRILLATOR**

TOPIC	METHOD	TIME
When the Heart Stops	L	5 minutes
Using an AED	L, V, SP	15 minutes
AED Precautions	L, A	15 minutes
Putting It All Together: Multiple-Rescuer Response Scenarios	SP	30 minutes
Lesson Wrap-Up	L	5 minutes
Total Session Time	**1 hour, 5 minutes**	

LESSON 6: **COURSE WRAP-UP**

TOPIC	METHOD	TIME
Final Written Exam	A	25 minutes
Final Skill Scenario	A	30 minutes
Closing	L	5 minutes
Total Session Time	**1 hour**	

TOTAL COURSE TIME..... 6 hours

PROFESSIONAL RESCUERS AND STANDARD PRECAUTIONS

Lesson Length: 30 minutes

GUIDANCE FOR THE INSTRUCTOR

To complete this session and meet the lesson objectives, you must:

- Discuss all points in the Introduction to the Course.
- Discuss all points in the topic Emergency Medical Services System.
- Discuss all points in the topic Legal Considerations.
- Discuss all points in the topic Standard Precautions.
- Complete the activity for Standard Precautions.
- Show the video segment "Standard Precations."

LESSON OBJECTIVES

- Identify the responsibilities and characteristics of professional rescuers.
- List the series of events that occur when the emergency medical services (EMS) system is activated.
- Understand how legal considerations affect professional rescuers.
- Have the knowledge needed to make the decision to take action in an emergency.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Latex-free nitrile gloves
- Resuscitation Masks - Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)

LESSON PREPARATION

- To save time, have all equipment and supplies prepared and available ahead of time.
- Fill in participant names on the participant progress log.

INSTRUCTOR NOTES

- When discussing standard precautions, refer participants to other resources, such as their employer, or other training, such as Bloodborne Pathogens Training, if they need additional information.

TEACHING TIPS

- You must be able to observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.

INSTRUCTION KEY:

 **Discussion**

 **Lecture**

 **Skill Practice**

 **Activity**

 **Video**

TOPIC: INTRODUCTION TO THE COURSE

Time: 5 minutes

WELCOME	
GUIDED DISCUSSION:  REFERENCES: **Participant's Handbook: Chapter 1**	■ Welcome participants and introduce yourself, including your background in aquatics and certification as an American Red Cross instructor. Have co-instructors introduce themselves if applicable. ■ Have participants briefly introduce themselves. ■ Review facility policies and procedures, and give locations of restrooms, water fountains, break areas and details unique to your facility. Also, point out where the exits are located as well as where the automated external defibrillators (AEDs) are located. ■ Review the course outline, including skill sessions, activities and the written exam. ■ Point out and/or distribute the *CPR/AED for Professional Rescuers Handbook*, which participants may use during the course. ■ Ask participants to inform you privately if they have any medical condition or disability that prevents them from taking part in skill sessions.
LECTURE:  REFERENCES: **Course Presentation: Slides 4-5** **Participant's Handbook: Chapter 1**	■ **The purpose of the CPR/AED for Professional Rescuers course is to teach those with a duty to act (professional rescuers) the skills needed to respond appropriately to breathing and cardiac emergencies.** ■ **The term professional rescuer refers to those with a duty to act. These professions range from professionals in the health care field and public safety field to athletic training and recreation, including lifeguards.** ■ **To receive the course completion certificate for CPR/AED for Professional Rescuers, you must:** ○ **Attend all class sessions.** ○ **Participate in all skill sessions and scenarios.** ○ **Demonstrate competency in all required skills.** ○ **Pass the final written exam with a minimum grade of 80 percent.**

TOPIC: THE EMERGENCY MEDICAL SERVICES SYSTEM

Time: 5 minutes

THE EMERGENCY MEDICAL SERVICES SYSTEM

LECTURE:

REFERENCES:

Course Presentation: Slides 6–8

Participant's Handbook: Chapter 1

- **The EMS system is a network of community resources and medical personnel with the purpose of providing emergency care to victims of injury or sudden illness.**
- **The survival and recovery of critically injured or ill victims depends on:**
  - **Early recognition of the emergency.**
  - **Early activation of the EMS system.**
  - **Care being provided until more advanced medical personnel take over.**
- **The EMS system depends on all persons involved performing their roles promptly and correctly, which, in turn, increases the chances for survival and recovery.**
- **Professional rescuers must keep their training current and stay abreast of new issues and developments in emergency care.**

TOPIC: LEGAL CONSIDERATIONS

Time: 5 minutes

LEGAL CONSIDERATIONS

LECTURE:

REFERENCES:

Course Presentation: Slides 9–12

Participant's Handbook: Chapter 1

- **Individuals have a basic right to accept or refuse care. Consent is obtained verbally or through a gesture. If the victim is a minor, consent must be obtained from a parent or guardian, if available. To obtain consent, you must do the following:**
  - **Identify yourself to the victim.**
  - **State the type and level of training you have.**
  - **Explain what you observe.**
  - **Explain what you plan to do.**
  - **Ask the victim if you may help.**
- **Implied consent is given when the victim is unresponsive, confused, mentally impaired, seriously injured or seriously ill and is unable to give consent.**
- **Once you have begun providing care, you must continue until someone with equal or more advanced training takes over.**
- **Discontinuation of care after it has begun is considered abandonment.**
- **While providing care to a victim, you may learn details about the victim that are private and confidential. Do not share this information with anyone except EMS personnel directly associated with the victim's medical care.**
- **Always document care provided. By documenting injuries and incidents, you establish a written record of the events that took place, the care you provided and the facts you discovered after the incident occurred.**

TOPIC: STANDARD PRECAUTIONS

Time: 10 minutes

STANDARD PRECAUTIONS

ACTIVITY:

REFERENCES:

Course Presentation: Slides 13–14

Participant's Handbook: Chapter 1

- Tell participants: **Throughout this course, we will be using personal protective equipment (PPE)—just like you should always do when providing care—to prevent the spread of bloodborne pathogens that can cause disease and that may be present in blood and other body fluids.**
- Provide the PPE—disposable gloves and resuscitation masks—that will be used in class to participants. As you distribute each item, remind participants that this equipment prevents contact of any body fluids between the rescuer and the victim.
- Remind participants that PPE also includes all specialized clothing, equipment and supplies, such as CPR breathing barriers, gowns, face shields, protective eyewear and biohazard bags.

Instructor's Note: *Refer participants to other resources, such as their employer, or training, such as Bloodborne Pathogens Training, if they need additional information.*

VIDEO:

REFERENCES:

Course Presentation: Slides 16

Participant's Handbook: Chapter 1

- Show the video segment "Standard Precautions."
- Answer participants' questions about the segment.

TOPIC: LESSON WRAP-UP

Time: 5 minutes

LESSON WRAP-UP

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 17–18

Participant's Handbook: Chapter 1

- In review, ask participants the following questions and answer any participants' questions:
- **When providing care to any victim, what do you need to do first?**
  Answer: *You should always obtain the victim's consent, either verbally or through a gesture. If the victim is unresponsive, consent is implied.*
- **A victim has collapsed in the lobby of an office building. You see that the person is bleeding from the mouth and face. Vomit and blood are on the floor around the victim. A bystander tells you that the victim hit their face on the floor when they fell. What PPE would you use?**

  Answers: *Responses should include the following:*
  - *Disposable gloves*
  - *Other PPE, such as a gown (to prevent contact with clothing) and biohazard bags*

TAKING ACTION

Lesson Length: 40 minutes

GUIDANCE FOR THE INSTRUCTOR

To complete this session and meet the lesson objectives, you must:

- Guide the discussion on Scene Size-up.
- Discuss all points in the topic Primary Assessment.
- Show the video segment "Performing a Primary Assessment."
- Guide the discussion on Performing a Primary Assessment.
- Complete the skill practice for Performing a Primary Assessment.
- Complete the activity Special Situations.
- Discuss all points in the topic Summoning EMS Personnel.
- Discuss all points in the topic Moving a Victim.

LESSON OBJECTIVES

- Recognize a life-threatening injury or illness.
- Demonstrate how to perform a primary assessment.
- Determine when it is appropriate to call for more advanced medical personnel.
- Describe instances in which a victim should be moved.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Latex-free nitrile gloves
- Resuscitation masks: adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)
- CPR manikins:
  - Infant manikins (one for every two participants)

LESSON PREPARATION

- To save time, have all equipment and supplies prepared and available ahead of time.

INSTRUCTOR NOTES

- It is not necessary to practice the primary assessment for an adult, a child and an infant. Have participants practice the primary assessment for an adult. Then, have participants as a group explain the elements that are unique when performing the primary assessment for a drowning victim, including when to give ventilations, as well as unique elements when performing the primary assessment on a child, including getting consent, opening the airway and giving ventilations.

TEACHING TIPS

- You must be able to observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Set up groups so that you can observe each group, but allow enough room for the groups to conduct the skills and scenarios without disrupting each other or causing injury.
- Ensure participants have the skill sheets from the *CPR/AED for Professional Rescuers Handbook* to practice the skills in this lesson:
  - Primary Assessment

TOPIC: SCENE SIZE-UP

Time: 5 minutes

SCENE SIZE-UP

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 20–21

Participant's Handbook: Chapter 1

- Tell participants that the first step in the general procedures is the scene size-up. A scene size-up is the careful and systematic approach of a scene to get a full picture of the emergency situation.
- Ask participants: **Why else is a scene size-up necessary?**

  Answers: *Responses should include the following:*
  - *To ensure scene safety for the rescuers, the victims and any bystanders*
  - *To identify necessary PPE*
  - *To form an initial impression by looking for signs that might indicate a life-threatening emergency*
  - *To determine the mechanism of injury or nature of the illness*
  - *To determine the number of victims*
  - *To identify what additional help may be required*

TOPIC: PRIMARY ASSESSMENT

Time: 25 minutes

PRIMARY ASSESSMENT

LECTURE:

REFERENCES:

Course Presentation: Slides 22–24

Participant's Handbook: Chapter 1

- **A primary assessment is conducted to identify any life-threatening conditions.**
- **The steps for a primary assessment include the following:**
  - **Check the victim for responsiveness using a shout-tap-shout sequence. *When checking a child or infant, obtain consent from a parent or guardian before providing care, if possible.***
  - **Open the victim's airway and check for breathing and a pulse simultaneously.**
    - **Check for a carotid pulse in an adult and a child. Check for a brachial pulse in an infant.**
    - **If a victim is not breathing or has no pulse as a result of drowning, give 2 ventilations.**
- **In general, if a victim is unresponsive but breathing and you do not suspect a head, neck or spinal injury, place the victim in a side-lying recovery position. A recovery position should also be used whenever you are alone and need to leave the scene (e.g., to call for help).**

LECTURE:
continued

Science Note:

- ***Checking for responsiveness:*** *When checking a person for responsiveness, sometimes a tapping of the shoulder does not provide enough physical stimuli to elicit a response to pain. Therefore, a trained responder could employ a "shout-tap-pinch" approach with a pinch to the muscle between the neck and shoulder in order to provide a stronger physical stimulus to a sensitive area. It is important that "shout-tap-pinch" does not delay patient care by adding extra time to determine a response to verbal or painful stimuli.*
- ***Recovery Positions:*** *Based on the available evidence, it is important to turn a person who is responsive and breathing normally but not fully awake onto their side to lower the risk for choking and aspiration. There is little evidence to suggest an optimal recovery position. However, turning the victim towards the rescuer, rather than away from the rescuer, allows for more control over the movement and facilitates monitoring the victim's airway.*
- ***Ventilations for Drowning Victims:*** *Due to the hypoxic nature of drowning, lifeguards and professional responders should alter the initial treatment for victims with no breathing or no pulse as a result of a drowning and provide 2 initial ventilations during the primary assessment prior to beginning CPR with chest compressions.*

PERFORMING A PRIMARY ASSESSMENT

VIDEO SEGMENT AND GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 25–28

Participant's Handbook: Chapter 1

- Explain to participants that the video segment demonstrates the procedures used for a primary assessment for an adult, child or infant to identify life-threatening conditions. These procedures also are followed for any victim of a witnessed sudden collapse.
- Show the video segment "Primary Assessment."
- Answer participants' questions about the segment.
- Ask participants: **What types of life-threatening conditions are you looking for during a primary assessment?**

  Answer: *Is the victim breathing and does the victim have a pulse?*
- Ask participants: **In what situations would you give 2 ventilations during the primary assessment?**

  Answer: *For any victim who is not breathing and has no pulse as a result of a drowning.*
- Ask participants: **How long do you check for a pulse and breathing during the primary assessment?**

  Answer: *At least 5 seconds but no more than 10 seconds.*
- Ask participants: **What are the techniques for opening a victim's airway to give ventilations?**

  Answers: *From the victim's side: Use the head-tilt/chin-lift. From above the victim's head: Tilt the head back using the jaw-thrust maneuver. If the victim is suspected of having a head, neck or spinal injury, use the jaw-thrust (without head extension) maneuver.*
- Ask participants: **What should you do if your ventilation does not make the victim's chest clearly rise?**

  Answer: *Re-tilt the victim's head and re-attempt another ventilation.*

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 1

- Ask participants to take their participant's handbook and disposable gloves to the practice area.
- Ask participants to find a partner. One person will be the responder while the other person will be the injured or ill person, then they will switch roles.
- Guide participants through the steps listed on the Performing a Primary Assessment skill chart. Once participants have completed the primary assessment, have them practice the recovery position.
- After practicing Primary Assessment—Adult, have participants practice the Primary Assessment using an infant manikin. Participants should work with a partner and guide each other through the skill skeps located on the Primary Assessment skill sheet in their participant's handbook.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include:
  - Failing to size up the scene.
  - Failing to determine responsiveness.
  - Failing to follow standard precautions.
  - Improperly opening the airway.
  - Checking an inappropriate pulse site or not looking at the chest while checking for breathing..

Instructor's Note: *It is not necessary to practice the primary assessment and recovery position for an adult and a child. Have participants practice the primary assessment and a recovery position for an adult. Then, have participants as a group explain the elements that are unique when performing the primary assessment for a drowning victim, including when to give ventilations, as well as unique elements when performing the primary assessment on a child, including getting consent, opening the airway and giving ventilations.*

SPECIAL SITUATIONS

ACTIVITY:

REFERENCES:

Participant's Handbook: Chapter 1

- Divide participants into several small groups. Assign each group one of the following special situations:
  - Suspected head, neck or spinal injury
  - Drowning incident
  - Mask-to-Stoma ventilations
  - Vomiting
- Have each group use the *CPR/AED for Professional Rescuers Handbook* to describe how they would address their assigned situation. Allow about 3 minutes.
- Ask each group how they would address their special situation.

SUMMONING EMS PERSONNEL

LECTURE:

REFERENCES:

Course Presentation: Slides 29–32

Participant's Handbook: Chapter 1

- **Summon EMS personnel for any of the following conditions:**
  - **Unresponsive or an altered level of consciousness (LOC), such as drowsiness or confusion**
  - **Breathing problems (difficulty breathing or no breathing)**
  - **Chest pain, discomfort or pressure lasting more than a few minutes or that goes away and comes back or that radiates to the shoulder, arm, neck, jaw, stomach or back**
  - **Persistent abdominal pain or pressure**
  - **No pulse**
  - **Severe life-threatening bleeding**
  - **Vomiting blood or passing blood**
  - **Severe (critical) burns**
  - **Suspected poisoning**
  - **Seizures on land, unless the person is known to have periodic seizures**
  - **Stroke**
  - **Painful, swollen, deformed areas or an open fracture**
  - **Victim's physical condition is unclear or is worsening**
- Ask participants: **What other conditions that may occur in the aquatic environment might require summoning EMS personnel?**

  Answers: *Responses should include the following:*
  - *Any victim recovered from underwater who may have inhaled water*
  - *Seizures in the water*
  - *Suspected or obvious injuries to the head, neck or spine*

TOPIC: MOVING A VICTIM

Time: 5 minutes

MOVING A VICTIM

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 33–37

Participant's Handbook: Chapter 1

- **Moving a victim needlessly or improperly can lead to further pain and injury.**
- Ask participants: **What factors should be considered when deciding whether or not to move a victim?**

  Answers: *Responses should include the following:*
  - *You are faced with immediate danger.*
  - *You need to get to other victims who have more serious injuries or illnesses.*
  - *It is necessary to provide appropriate care (e.g., moving a victim to the top or bottom of a flight of stairs to perform Cardiopulmonary Resuscitation (CPR).*
- **If you must leave a scene to ensure your personal safety, you should make reasonable attempts to move the victim to safety as well.**
- Ask participants: **If you have to move a victim, what factors should be considered in deciding what method to use?**

  Answers: *Responses should include the following:*
  - *The victim's height and weight*
  - *Your physical strength*
  - *Obstacles, such as stairs and narrow passages*
  - *The distance to be moved*
  - *Whether others are available to assist*
  - *The victim's condition*
  - *Whether aids to transport are readily available*

TOPIC: LESSON WRAP-UP

Time: 5 minutes

LESSON WRAP-UP

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 38–40

Participant's Handbook: Chapter 1

- Ask participants: **What would be your first step in an emergency situation?**
  Answers: *Responses should include the following:*
  - *Sizing up the scene and forming an initial impression is done first in an emergency situation.*
- Prompt participants: **You are performing a primary assessment on a person who has collapsed and have sized up the scene and determined that it is safe. A bystander tells you that the victim became unresponsive a few minutes ago, but when you arrive, the victim is talking. The victim is able to respond to your questions, but their speech is slurred. Describe how you would complete your primary assessment and what your findings would most likely be.**
  Answers: *Responses should include the following:*
  - *Obtaining the victim's consent.*
  - *Assessing the victim's level of consciousness (LOC): Because the victim is talking, they are conscious and alert.*
  - *Summoning more advanced medical personnel: Because the victim's speech is slurred, they are showing signs of stroke, in which time is critical. More advanced medical personnel should be summoned immediately.*
  - *Checking for breathing and a pulse: The victim's airway is open because they are talking and breathing; monitor the victim's breathing closely because it could change suddenly; because the victim is conscious and talking, a pulse is present.*

SKILL CHARTS AND SKILL ASSESSMENT TOOL

PRIMARY ASSESSMENT

SKILL CHART: PRIMARY ASSESSMENT—ADULT, CHILD, OR INFANT

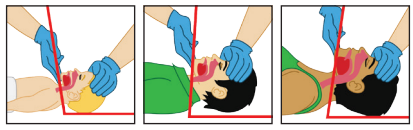
Note: *Get an AED on the scene as soon as possible.*

1. Size up the scene while forming an initial impression:
   - Use your senses to check for hazards that could present a danger to you or the victim.
   - Use appropriate PPE.
   - Determine the number of injured or ill victims.
   - Determine what caused the injury or the nature of the illness. Look for clues to what may have caused the emergency and how the victim became ill or injured.
   - Form an initial impression that may indicate a life-threatening emergency, including responsiveness or severe bleeding.
   - Does the victim look sick? Are they awake and moving?
   - Determine what additional resources may be needed.

Note: *If you see severe life-threatening bleeding, use any available resources to control the bleeding including a tourniquet if one is available and you are trained.*

SKILL CHART: PRIMARY ASSESSMENT—ADULT, CHILD, OR INFANT, *CONTINUED*

2. Check for responsiveness.
   - Shout, "Are you okay?" (use the person's name if you know it) then tap the victim on the shoulder and shout, "Are you okay?" again in a shout-tap-shout sequence.
     - For an infant, tap the foot.
3. If no response, summon EMS personnel, if you have not already done so.
   - If the victim is face-down, roll the victim onto their back while supporting the head, neck and back.
4. Perform a primary assessment, open the airway and simultaneously check for breathing and a pulse for at least 5 seconds, but no more than 10 seconds.
   - To open the airway:
     - From the side, use the head-tilt/chin-lift technique.
     - From above the victim's head, use the jaw-thrust (with head extension) maneuver.
     - If a head, neck or spinal injury is suspected, use the jaw-thrust (without head extension) maneuver.
   - Look, listen and feel for breathing and pulse simultaneously.
     - For an adult or child, feel for a carotid pulse by placing two fingers in the middle of the victim's throat and then sliding them into the groove at the side of the neck closest to you. Press lightly.
     - For an infant, feel for the brachial pulse on the inside of the upper arm between the infant's elbow and shoulder. Press lightly.
5. Give two ventilations **ONLY IF** the victim is not breathing as the result of a drowning.
   - If the chest does not clearly rise when attempting the first 2 ventilations, re-tilt the head and try to give another ventilation.
   - If after the second attempt the chest clearly rises, give 1 more ventilation so there are two successful ventilations.
   - If after the second attempt, the chest does not clearly rise, immediately begin CPR.
6. Provide appropriate care.
   - If the victim is not breathing but has a pulse, give ventilations.
     - Adult: Give 1 ventilation about every 5-6 seconds.
     - Child and Infant: Give 1 ventilation about every 3 seconds.
   - If the victim is not breathing and has no pulse, begin CPR starting with compressions.
   - If unresponsive but breathing and you do not suspect a head, neck or spinal injury, place the victim in a side-lying recovery position. To place the victim in a recovery position:
     - Raise the victim's arm that is closest to you.
     - Roll the victim toward you so that their head rests on their extended arm.
     - Bend the victim's knees to stabilize their body.

SKILL ASSESSMENT TOOL: PRIMARY ASSESSMENT—ADULT, CHILD AND INFANT		
Criteria	**Proficient**	**Not Proficient**
Scene size-up	■ Uses PPE (wears gloves) ■ Obtains consent (child/infant)	■ Does not use PPE ■ Does not obtain consent (child/infant)
Checks for responsiveness	■ Uses a shout-tap-shout sequence ■ Summons EMS personnel	■ Does not check for responsiveness or use a shout-tap-shout sequence ■ Does not summon EMS personnel
Simultaneous breathing and pulse check	■ Opens and maintains open airway throughout primary assessment  ■ Looks, listens and feels for breathing and pulse for at least 5 seconds but no more than 10 seconds ■ For adult or child, feels for carotid pulse ■ For infant, feels for brachial pulse	■ Does not maintain an open airway throughout primary assessment ■ Does not look, listen and feel for breathing and/or pulse ■ Checks for breathing or pulse for less than 5 or more than 10 seconds ■ Checks an incorrect pulse location
Gives 2 ventilations (for any victim who is unresponsive as a result of a drowning)	■ Gives 2 ventilations that make the chest clearly rise and last about 1 second each ■ Allows the chest to fall between ventilations	■ Gives ventilations that do not make the chest clearly rise and last 2 or more seconds each ■ Does not give ventilations ■ Gives fewer or more than 2 ventilations ■ Does not allow chest to fall between ventilations

RECOVERY POSITIONS

SKILL CHART: SIDE-LYING RECOVERY POSITION

1. Kneel at the victim's side.
2. Extend the victim's arm that is closest to you above the victim's head.
3. Roll the victim toward you so that they are on their side. The victim's head should rest on their extended arm.
4. Bend both of the victim's knees to stabilize their body.

Note: *Use a side-lying recovery position when a victim is responsive and breathing and you do not suspect a head, neck or spinal injury. You should also use this recovery position if you have to leave for any reason, such as to get help, even if the victim has a head, neck or spinal injury.*

SKILL CHART: INFANT RECOVERY POSITION (ALTERNATE)

1. Carefully position the infant face-down along your forearm.
2. Support the infant's head and neck with your other hand while keeping the infant's mouth and nose clear.

SKILL ASSESSMENT TOOL: RECOVERY POSITIONS

Criteria	Proficient	Not Proficient
SIDE-LYING RECOVERY POSITION		
Maintains an open airway	■ Rolls victim onto side	■ Victim is vomiting but left lying face-up
Supports head, neck and spine	■ Rolls victim in a smooth motion until on their side	■ Lifts or pushes the head or neck
INFANT (ALTERNATE)		
Maintains an open airway	■ Mouth and nose are clear	■ Infant's mouth or nose is blocked by forearm or hand
Supports head and neck	■ Infant face-down along the rescuer's forearm ■ Head and neck supported by other hand	■ Infant's head or body is sideways or dangling from forearm

CARING FOR BREATHING EMERGENCIES

Lesson Length: 1 hour, 25 minutes

GUIDANCE FOR THE INSTRUCTOR

To complete this session and meet the lesson objectives, you must:

- Guide the discussion on breathing emergencies.
- Discuss all points in the topic Respiratory Distress and Respiratory Arrest.
- Discuss all points in the topic Giving Ventilations.
- Show the video segment "Giving Ventilations—Adult, Child and Infant."
- Conduct the skill practice for Giving Ventilations—Adult.
- Conduct the skill practice for Giving Ventilations—Child and Infant.
- Show the video segment "Using a Bag-Valve-Mask Resuscitator—Two Rescuers."
- Complete the skill practice for Using a Bag-Valve-Mask Resuscitator—Two Rescuers.
- Guide the discussion on Airway Obstruction.
- Show the video segment "Conscious Choking—Adult and Child."
- Complete the skill practice for Conscious Choking—Adult and Child.
- Show the video segment "Conscious Choking—Infant."
- Complete the skill practice for Conscious Choking—Infant.

LESSON OBJECTIVES

- Recognize and care for breathing emergencies.
- Demonstrate how to give ventilations using a resuscitation mask (adult, child and infant).
- Demonstrate how to use a bag-valve-mask resuscitator (BVM) with two rescuers.
- Demonstrate how to care for a conscious choking victim.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Latex-free nitrile gloves
- Resuscitation masks - Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)
- CPR manikins:
  - Adult and infant manikins (one for every two participants)
  - Child manikin (optional; one for every two participants)
- Bag-valve-mask (BVM) resuscitators:
  - Adult BVM (one for each adult manikin)
  - Infant BVM (one for each infant manikin)
  - Child BVM (optional; one for each child manikin)
- Manikin decontamination supplies (decontaminating solution, 4'' × 4'' gauze pads, soap and water, brush, basins or buckets, latex-free nitrile gloves and any accessories that may be recommended by the manufacturer of the manikin)

LESSON PREPARATION

- To save time, have all equipment, materials, and supplies set up before the start of the class.
- Ensure participants have the skill sheets from the *CPR/AED for Professional Rescuers Handbook* to practice the skills in this lesson:
  - Giving Ventilations
  - Using a Bag-Valve-Mask Resuscitator—Two Rescuers
  - Choking—Adult and Child
  - Choking—Infant

INSTRUCTOR NOTES

- Training information and skill sheets for the administration of epinephrine and for the administration of inhalers can be found on Instructor's Corner.
- When practicing giving ventilations, participants need only demonstrate giving ventilations to an adult and an infant and be able to point out the differences for the other, such as how far to tilt the head.

Instructor's Note: *Participants need only demonstrate how to care for conscious choking for an adult. Have participants as a group explain the differences for a child, such as kneeling if the victim is shorter.*

TEACHING TIPS

- You must be able to observe and evaluate each candidate's skills during each scenario.
- Place the manikins with their heads facing in the same direction during skills sessions to make it easier to clearly observe and evaluate skills.

TOPIC: BREATHING EMERGENCIES

Time: 10 minutes

BREATHING EMERGENCIES

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 42–44

Participant's Handbook: Chapter 2

- **In a breathing emergency, a person's breathing can become so impaired that life is threatened. As a professional rescuer, it is important for you to know how to recognize and care for these emergencies.**
- Ask participants: **What are possible causes of breathing emergencies?**

  Answers: *Responses should include the following:*
  - *A partially obstructed airway*
  - *Illness*
  - *Chronic conditions, such as asthma and emphysema*
  - *Electrocution, including lightning strikes*
  - *Heart attack*
  - *Injury to the head, chest, lungs or abdomen*
  - *Allergic reactions*
  - *Drugs*
  - *Poisoning*
  - *Emotional distress*
  - *Anaphylactic shock*

RESPIRATORY DISTRESS AND RESPIRATORY ARREST

LECTURE:

REFERENCES:

Course Presentation: Slides 45–49

Participant's Handbook: Chapter 2

- **There are two types of breathing (also referred to as respiratory) emergencies:**
  - **Respiratory distress is a condition in which breathing becomes difficult.**
  - **Respiratory arrest is a condition in which breathing stops.**
- **Respiratory distress may lead to respiratory arrest.**
- **Signs and symptoms of respiratory distress include:**
  - **Slow or rapid breathing**
  - **Unusually deep or shallow breathing**
  - **Shortness of breath or noisy breathing**
  - **Dizziness, drowsiness or light-headedness**
  - **Changes in level of consciousness**
  - **Increased heart rate**
  - **Chest pain or discomfort**
  - **Skin that is flushed, pale, ashen or bluish**
  - **Unusually moist or cool skin**
  - **Gasping for breath**
  - **Wheezing, gurgling or high-pitched noises**
  - **Inability to speak in full sentences**
  - **Tingling in the hands, feet or lips**
  - **Apprehensive or fearful feelings**
- **To care for respiratory distress you must:**
  - **Summon EMS personnel.**
  - **Maintain an open airway.**
  - **Help the victim to rest in a comfortable position that makes breathing easier.**
  - **Reassure and comfort the victim.**
  - **Assist the victim with taking any of their prescribed medication.**
  - **Keep the victim from getting chilled or overheated.**
  - **Administer emergency oxygen, if it is available and you are trained to do so.**
- **If the victim has asthma or emphysema, they may try to do pursed-lip breathing.**
- **Have the person sit in a comfortable position. Once they inhale, have them slowly exhale through the mouth with lips pursed like blowing out candles.**
- **During a breathing emergency, the use of emergency oxygen can help a responsive person who is in respiratory distress or may be used for an unresponsive victim who is not breathing. Additional American Red Cross training is available to teach you how to administer emergency oxygen.**

Instructor's Note: *Training information and skill sheets for the administration of epinephrine and for the administration of inhalers can be found on Instructor's Corner.*

LECTURE:
continued

Science Note:

- ***Respiratory Arrest:*** *Hyperventilation most commonly occurs when victims are being ventilated in respiratory arrest or when an advanced airway is placed during cardiac arrest. It is critical to avoid hyperventilation of the victim because it leads to increased pressure and a subsequent decrease in cardiac filling and cardiac perfusion pressures by putting pressure on the vena cava (the main chest vein).*
- ***Opioid Overdose:*** *With a growing epidemic of opioid (commonly heroin and oxycodone) overdoses in the United States, local and state departments of health have increased access to the medication naloxone, which can counteract the effects of overdose including respiratory arrest. Naloxone (also referred to by its trade name Narcan™) has few side effects and can be administered intranasally (through the nose). Trained responders should administer the drug when the patient is in respiratory arrest and an opioid overdose is suspected. Lifeguards and professional responders should follow local medical protocols and regulations to determine dosing and timing of naloxone administration.*

TOPIC: GIVING VENTILATIONS

Time: 30 minutes

GIVING VENTILATIONS

LECTURE:

REFERENCES:

Course Presentation: Slides 50–52

Participant's Handbook: Chapter 2

- **If a victim has a pulse, but is not breathing, give ventilations using a resuscitation mask, when possible.**
- **When caring for a victim who is not breathing but has a pulse, give ventilations.**
- **The rates for giving ventilations for an adult and a child or infant are different.**
  - **For an adult, give 1 ventilation about every 5-6 seconds**
  - **For a child, give 1 ventilation about every 3 seconds.**

GIVING VENTILATIONS—ADULT AND CHILD

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 2

Instructor's Note: *Participants need only demonstrate how to provide ventilations for an adult. Have participants as a group explain the differences for a child, such as how far to tilt the head or using a pediatric mask.*

- Choose either the practice-while-you-watch or watch-then-practice method for this skill practice.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include: not tilting the head, tilting the head too far back, not looking at the chest when assessing for breathing, not noticing if the ventilations are inadequate (do not cause the chest to rise), failing to reassess for breathing and pulse, providing ventilations at the incorrect ratio, breathing too hard or too soft, not obtaining a seal with the resuscitation mask, using an improperly sized mask for the victim or not counting out loud.

SKILL PRACTICE AND VIDEO SEGMENT:

REFERENCES:

Course Presentation: Slide 53

Participant's Handbook: Chapter 2

PRACTICE-WHILE-YOU-WATCH

- Ask participants to take their disposable gloves and resuscitation masks to the practice area.
- Explain to the participants that, for this skill, they will follow along with and practice the steps for giving ventilations to an adult as they are guided by the video.
- Show the video segment "Giving Ventilations—Adult, Child and Infant."
- Do not interrupt this skill session to lecture or communicate anything other than guidance related to skill practice. In general, answering questions should occur after the video segment (and skill session) has ended.

WATCH-THEN-PRACTICE

- Tell participants that, for this skill, they will watch the video segment without practicing until you pause it, even though the narration may say to follow along.
- Show the video segment "Giving Ventilations—Adult, Child and Infant."
- Ask participants to take their disposable gloves and resuscitation masks to the practice area.
- Show the video segment "Giving Ventilations."
- Guide participants through the steps of the skill of giving ventilations to an adult.

GIVING VENTILATIONS—INFANT

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 2

- Guide participants through the steps of the skill Giving Ventilations—Infant.
- Examples of common errors to point out include: not tilting the head, tilting the head past a neutral position, failing to recheck for breathing and a pulse, giving ventilations that are too hard or at the wrong rate, not properly sealing the resuscitation mask, not looking at the chest when checking for breathing, not using a pediatric mask for the infant victim or not counting out loud.

TOPIC: BAG-VALVE-MASK RESUSCITATOR

Time: 15 minutes

GIVING VENTILATIONS USING A BVM—TWO RESCUERS

ACTIVITY:

REFERENCES:

Participant's Handbook: Chapter 2

- Briefly show participants a BVM and point out the three parts—a bag, a valve and a mask—demonstrating how squeezing the bag opens the one-way valve, forcing air into the lungs, and how releasing the bag closes the valve, allowing environmental air to refill it.
- Emphasize the need for two rescuers: one to position and seal the mask and one to squeeze the bag.

Science Note: *Ventilations with a BVM is reserved for when multiple rescuers (at least two) are available to treat the victim: one to perform chest compressions and at least one other to manage the airway and provide ventilations. While in some situations a BVM may often be used by a single responder (advanced medical personnel), evidence supports the use of a BVM with two responders: one to maintain an adequate seal and one to squeeze the bag to deliver the ventilations.*

VIDEO:

REFERENCES:

Course Presentation: Slide 54

Participant's Handbook: Chapter 2

- Show the video segment "Using a Bag-Valve-Mask Resuscitator—Two Rescuers."
- Answer participants' questions about the segment.

GIVING VENTILLATIONS USING A BVM—TWO RESCUERS

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 2

- Divide participants into pairs and guide them through the steps listed on the Giving Ventilations Using a Bag-Valve-Mask Resuscitator—Two Rescuers skill chart.
- Guide participants through the steps of the skill for using a BVM on an adult.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include:
  - Not tilting the head
  - Not maintaining a seal with the resuscitation mask
  - Not squeezing the bag hard enough or squeezing the bag too hard
  - The chest does not rise
  - Giving ventilations at the wrong rate
  - Not counting out loud

TOPIC: AIRWAY OBSTRUCTION

Time: 15 minutes

CONSCIOUS CHOKING—ADULT AND CHILD

LECTURE:

REFERENCES:

Course Presentation: Slides 55–57

Participant's Handbook: Chapter 2

- **Airway obstructions are a common emergency.**
- **Mechanical obstructions result from a foreign body lodged in the airway, generally food or other small objects.**
- **Anatomical obstructions are caused mostly by the tongue. When a person becomes unconscious, the tongue loses muscle tone and falls back, blocking the airway.**
- **The universal sign for choking in a conscious person is clutching the throat.**
- **Encourage coughing as long as the person can cough forcefully.**
- **If the person cannot cough, speak, cry or breathe, immediate action is needed.**

VIDEO SEGMENT:

REFERENCES:

Course Presentation: Slide 58

Participant's Handbook: Chapter 2

- Explain to participants that the video segment will demonstrate how to care for conscious choking adult or child.
- Show the video segment "Conscious Choking—Adult and Child."
- Answer participants' questions about the segment.

Science Note: *Evidence suggests that it may take more than one technique to clear the airway, and that back blows, abdominal thrusts and chest thrusts are all effective.*

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 2

Instructor's Note: *Participants need only demonstrate how to care for conscious choking for an adult. Have participants as a group explain the differences for a child, such as kneeling if the victim is shorter.*

- Divide participants into two lines facing the same direction or have them partner and arrange each pair so you can see all groups. Designate victims and responders.
- Instruct participants not to give actual back blows or abdominal thrusts to their partners.
- Guide them through the steps listed on the Conscious Choking—Adult and Child skill chart.
- Have participants change roles and repeat the guided skill practice.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include: failing to obtain the victim's consent, performing abdominal thrusts before back blows, positioning the hands improperly, not using the thumb side of the fist to give abdominal thrusts.
- Remind participants that if a conscious choking victim is too large to reach around or if the victim is obviously pregnant or known to be pregnant, back blows and chest thrusts are used.

CONSCIOUS CHOKING—INFANT	
VIDEO SEGMENT:  REFERENCES: **Course Presentation: Slide 59** **Participant's Handbook: Chapter 2**	■ Explain that the video segment will demonstrate how to care for a choking infant. ■ Show the video segment "Conscious Choking—Infant." ■ Answer participants' questions about the segment.
SKILL PRACTICE:  REFERENCES: **Participant's Handbook: Chapter 2**	■ Ask participants to return to the practice area. ■ Divide participants into pairs and guide them through the steps listed on the Conscious Choking—Infant skill chart. ■ Guide them through the steps listed on the Conscious Choking—Infant skill chart. ■ Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice. ■ Examples of common errors to point out include: not keeping the infant's head lower than the chest, not supporting the head and neck securely when turning the infant, not placing the fingers correctly for chest thrusts or the hand for back blows.
LECTURE:  REFERENCES: **Course Presentation: Slide 60**	■ **If a victim who is choking becomes unresponsive, carefully lower them to a firm, flat surface (the ground), send someone to get an AED, and summon additional resources if appropriate and you have not already done so. Immediately begin CPR starting with chest compressions.** ■ **You will learn how to give CPR and provide care for an unresponsive victim with an obstructed airway later in the course.**

TOPIC: LESSON WRAP-UP

Time: 10 minutes

LESSON WRAP-UP

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 61–65

Participant's Handbook: Chapter 2

- In review, ask participants the following questions and answer any participants' questions: **What are some of the signs and symptoms that would make you suspect someone is suffering from respiratory distress rather than respiratory arrest?**

  Answers: *Responses should include the following:*

  - *Respiratory distress involves difficulty breathing. Signs and symptoms include slow or rapid breathing; unusually deep or shallow breathing; shortness of breath or noisy breathing; gasping; wheezing, gurgling or high-pitched noises; dizziness, drowsiness or light-headedness; changes in LOC; increased heart rate; chest pain or discomfort; flushed, pale, ashen or bluish skin that is unusually moist or cool; inability to speak in full sentences; tingling in the hands, feet or lips; and feelings of apprehension or fear.*
  - *Respiratory arrest occurs when the person stops breathing. Signs and symptoms include the absence of breathing, irregular or shallow breaths, or lack of the chest rising and falling.*

- **Why is it recommended that two rescuers use a BVM rather than one rescuer?**

  Answer: *One rescuer is needed to position and adequately seal the mask while the other rescuer squeezes the bag to give ventilations.*

- **You are on duty at a local carnival and are called to assist a 20-year-old victim who is choking on a hot dog. The victim is clutching their throat and coughing. What should you do?**

  Answers: *Responses should include the following:*

  - *Obtain consent from the responsive victim.*
  - *Encourage the victim to continue to cough forcefully until the object is cleared or the victim is unable to cough, speak or breath.*

- **After giving ventilations with a BVM for approximately 2 minutes, you recheck the victim and find that they are not breathing and now do not have a pulse. What would you do?**

  Answer: *Begin CPR.*

SKILL CHARTS AND SKILL ASSESSMENT TOOL

In addition to performing the steps listed in the skill charts in the correct order, participants must meet the criterion at the proficient level to be checked off for a skill.

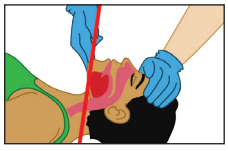
GIVING VENTILATIONS

SKILL CHART: GIVING VENTILATIONS—ADULT

If the victim is not breathing but has a pulse:

1. Position and seal the resuscitation mask.
2. Open the airway and blow into the mask.
   - Give 1 ventilation about every 5 to 6 seconds.
   - Each ventilation should last about 1 second and make the chest clearly rise.
   - The chest should fall before the next ventilation is given.
   - Give ventilations for about 2 minutes.
3. Recheck for breathing and pulse about every 2 minutes.
   - Remove the mask and look, listen and feel for breathing and a pulse for at least 5 seconds but no more than 10 seconds.
4. Assess the victim's condition and provide appropriate care.
   - If the victim is unresponsive but breathing, place in a recovery position.
   - If the victim is unresponsive and not breathing but there is a pulse, continue giving ventilations.
   - If the victim is unresponsive, not breathing and there is no pulse, begin CPR.
   - If the chest does not clearly rise, provide care for an unresponsive choking victim.

SKILL ASSESSMENT TOOL: GIVING VENTILATIONS—ADULT

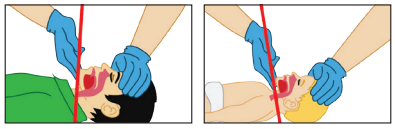
Criteria	Proficient	Not Proficient
Open the airway	■ Tilts head back so that jaw line is at an angle of 80° to 100° to the floor 	■ Tilts head back so that jaw line is at an angle less than 80° or greater than 100° to the floor
Give ventilations	■ Gives 1 ventilation about every 5-6 seconds that makes the chest clearly rise and lasts about 1 second	■ Gives 1 ventilation about every 5-6 seconds that does not make the chest clearly rise and lasts 2 or more seconds ■ Gives ventilations too fast or too slow (less than 1 ventilation every 3 seconds or greater than 1 ventilation every 7 seconds)

SKILL CHART: GIVING VENTILATIONS—CHILD OR INFANT

If the victim is not breathing but has a pulse:

1. Position and seal the resuscitation mask.
2. Open the airway and blow into the mask.
   - Child or infant: Give 1 ventilation about every 3 seconds.
   - Each ventilation should last about 1 second and make the chest clearly rise.
   - The chest should fall before the next ventilation is given.
   - Give ventilations for about 2 minutes.
3. Recheck for breathing and pulse about every 2 minutes.
   - Remove the mask and look, listen and feel for breathing and a pulse for at least 5 seconds but no more than 10 seconds.
4. Assess the victim's condition and provide appropriate care.
   - If the victim is unresponsive but breathing, place in a recovery position.
   - If the victim is unresponsive and not breathing but there is a pulse, continue giving ventilations.
   - If the victim is unresponsive, not breathing and there is no pulse, begin CPR.
   - If the chest does not clearly rise, provide care for an unresponsive choking victim.

SKILL ASSESSMENT TOOL: GIVING VENTILATIONS - CHILD OR INFANT

Criteria	Proficient	Not Proficient
Opens the airway	■ Tilts head back so that jaw line is at an angle of 80° to 100° to the floor 	■ Tilts head back so that jaw line is at an angle less than 80° or greater than 100° to the floor
Gives ventilations	■ Gives 1 ventilation about every 3 seconds that makes the chest clearly rise and lasts about 1 second	■ Gives 1 ventilation about every 3 seconds that does not make the chest clearly rise and lasts 2 or more seconds ■ Gives ventilations too fast or too slow (less than 1 ventilation every 3 seconds or greater than 1 ventilation every 5 seconds)

GIVING VENTILATIONS USING A BAG-VALVE-MASK RESUSCITATOR

SKILL CHART: GIVING VENTILATIONS USING A BAG-VALVE-MASK RESUSCITATOR—TWO RESCUERS

1. Rescuer 1 kneels behind the victim's head and positions the mask over the victim's mouth and nose.
2. Rescuer 1 seals the mask.
3. Rescuer 1 opens the airway using the jaw-thrust (with head extension) maneuver.
4. Rescuer 2 gives ventilations.
   - Squeeze the bag slowly with both hands.
   - For an adult, give 1 ventilation about every 5-6 seconds.
   - For a child or infant, give 1 ventilation about every 3 seconds.
   - Each ventilation should last about 1 second and make the chest clearly rise. The chest should fall before the next breath is given.
5. Rescuer 2 rechecks for breathing and a pulse about every 2 minutes.
   - Remove the mask and look, listen and feel for breathing and a pulse for at least 5, but no more than 10 seconds.

SKILL ASSESSMENT TOOL: GIVING VENTILATIONS USING A BVM—TWO RESCUERS

Criteria	Proficient	Not Proficient
Opens airway	■ Performs a jaw-thrust (with head extension) maneuver	■ Tilts the head from the side ■ Unable to open the airway
Delivers the appropriate volume of air with each ventilation	■ Squeezes the bag to give ventilations that make the chest	■ Victim's chest does not rise
Gives ventilations at the correct ratio for the victim	■ Adult ratio: Squeezes the bag to give 1 ventilation about every 5-6 seconds	■ Gives ventilations too slow or too fast ■ Gives ventilations at an inappropriate rate
Gives ventilations at the correct ratio for the victim	■ Child or Infant ratio: Squeezes the bag to give 1 ventilation about every 3 seconds	■ Gives ventilations too slow or too fast ■ Gives ventilations at an inappropriate rate

AIRWAY OBSTRUCTION

SKILL CHART: CONSCIOUS CHOKING—ADULT AND CHILD

If the victim cannot cough, speak or breathe:

1. Give 5 back blows.
   - Position yourself slightly behind the victim.
   - Place one arm diagonally across the victim's chest and bend the victim forward at the waist. The victim's upper airway should be at least parallel to the ground.
   - Firmly strike the victim between the shoulder blades with the heel of your hand.
   - Each thrust should be a distinct attempt to dislodge the object.
2. Give 5 abdominal thrusts.
   - Stand behind the victim.
   - For a child, stand or kneel behind the child, depending on the child's size. Use less force on a child than you would on an adult.
   - Place the thumb side of your fist against the middle of the abdomen, just above the navel.
   - Grab your fist and give quick, upward thrusts.
   - Each thrust should be a distinct attempt to dislodge the object.

SKILL ASSESSMENT TOOL: CONSCIOUS CHOKING—ADULT OR CHILD

Criteria	Proficient	Not Proficient
Bends the person forward at the waist for back blows	■ Positions person with upper airway (person's head and neck) parallel to the ground or angled slightly downward	■ Positions person with upper airway (person's head and neck) angled upward
Gives 5 back blows	■ Strikes the back with heel of one hand ■ Strikes the center of the back between shoulder blades ■ Each back blow is a separate and distinct attempt to dislodge the object	■ Strikes the back with closed hand ■ Strikes the back with palm ■ Strikes the back more than 2 inches from the center of both shoulder blades ■ Each back blow is not a separate and distinct attempt to dislodge the object
Gives 5 abdominal thrusts	■ Places fist within 2 inches of navel ■ Places fist 1 inch or more away from lower tip of breastbone ■ Each abdominal thrust is a separate and distinct attempt to dislodge the object	■ Places fist more than 2 inches from navel ■ Places fist less than 1 inch from the lower tip of breastbone (too close to breastbone) ■ Each abdominal thrust is not a separate and distinct attempt to dislodge the object

SKILL CHART: CONSCIOUS CHOKING—INFANT

If the victim cannot cough, speak or breathe:

1. Carefully position the infant face-down along your forearm.
   - Support the infant's head and neck with your hand.
   - Lower the infant onto your thigh, keeping the infant's head lower than their chest.
2. Give 5 back blows.
   - Give back blows with the heel of your hand between the infant's shoulder blades.
   - Each back blow should be a distinct attempt to dislodge the object.
3. Position the infant face-up along your forearm.
   - Position the infant between both of your forearms, supporting the infant's head and neck.
   - Turn the infant face-up.
   - Lower the infant onto your thigh with the infant's head lower than their chest.
4. Give 5 chest thrusts.
   - Put two or three fingers on the center of the chest just below the nipple line and compress the chest about 1½ inches.
   - Each chest thrust should be a distinct attempt to dislodge the object.

SKILL ASSESSMENT TOOL: CONSCIOUS CHOKING—INFANT

Keeps the head lower than the chest	■ Positions infant with upper airway (infant's head and neck) angled downward, lower than chest	■ Positions infant with upper airway (infant's head and neck) parallel to ground or angled upward
Supports the head and neck securely	■ Places thumb and fingers on infant's jaw	■ Places thumb on front of infant's neck ■ Places fingers on front of infant's neck
Maintains firm support	■ Holds infant securely	■ Drops infant ■ Loses control of infant
Gives back blows	■ Strikes the back with the heel of one hand ■ Strikes the center of the back between the shoulder blades	■ Strikes the back with a closed hand ■ Strikes the back with a palm ■ Strikes the back more than 1 inch from the center of both shoulder blades
Gives chest thrusts	■ Places fingers in line with the breastbone (not across/perpendicular to the breastbone) ■ Places fingers in center of chest not more than 1 inch below nipple line	■ Places fingers perpendicular to breastbone ■ Places fingers outside center of chest ■ Places fingers more than 1 inch below nipple line ■ Places fingers more than 1 inch above nipple line

CARING FOR CARDIAC EMERGENCIES

Lesson Length: 1 hour, 25 minutes

GUIDANCE FOR THE INSTRUCTOR

To complete this session and meet the lesson objectives, you must:

- Guide the discussion on Signs and Symptoms of a Heart Attack.
- Show the video segment "Heart Attack and the Cardiac Chain of Survival."
- Discuss all points in the topic Heart Attack and the Cardiac Chain of Survival.
- Discuss all points in the topic Cardiac Arrest.
- Guide the discussion on CPR.
- Show the video segment "CPR—Adult and Child."
- Conduct the skill practice for CPR—Adult and Child.
- Show the video segment "CPR—Infant."
- Conduct the skill practice for CPR—Infant.
- Discuss all points in the topic Two-Rescuer CPR.
- Show the video segment "Two-Rescuer CPR—Adult and Child."
- Conduct the skill practice for Two-Rescuer CPR—Adult and Child.
- Show the video segment "Two-Rescuer CPR—Adult and Infant."
- Conduct the skill practice for Two-Rescuer CPR—Infant.
- Discuss all points in the topic CPR with Obstructed Airway.
- Show the video segment "CPR—Obstructed Airway."
- Conduct the skill practice for CPR—Obstructed Airway.

LESSON OBJECTIVES

- Identify the five links in the Adult and Pediatric Cardiac Chains of Survival and identify the importance of each.
- Recognize the signs of a heart attack.
- Identify the steps for caring for a victim of a heart attack.
- Identify signs and symptoms of cardiac arrest.
- Demonstrate how to safely and effectively perform one-rescuer CPR and two-rescuer CPR.
- Demonstrate how to safely and effectively perform CPR for a victim with an obstructed airway.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Latex-free nitrile gloves
- Resuscitation Masks–Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)

- CPR Manikins:
  - Adult and infant manikins (one for every two participants)
  - Child manikin (optional, one for every two participants)
- Bag-valve-mask (BVM) resuscitators:
  - Adult BVM (one for each adult manikin)
  - Infant BVM (one for each infant manikin)
  - Child BWM (optional; one for each child manikin)
- Manikin decontamination supplies (decontaminating solution, 4'' × 4'' gauze pads, soap and water, brush, basins or buckets, latex-free nitrile gloves and any accessories that may be recommended by the manufacturer of the manikin)

LESSON PREPARATION

- To save time, have all equipment, materials, and supplies set up before the start of the class.
- Choose either the practice-while-you-watch or watch-then-practice method for the following skill practice sessions:
  - One-rescuer CPR
  - Two-rescuer CPR—Adult and Child
  - Two-rescuer CPR—Infant
- Ensure participants have the skill sheets from the *CPR/AED for Professional Rescuers Handbook* to practice the skills in this lesson:
  - One-rescuer CPR
  - Two-rescuer CPR—Adult and Child
  - Two-rescuer CPR—Infant

INSTRUCTOR NOTES

- During the adult and child CPR skill session, participants need only demonstrate CPR on an adult and be able to point out the differences in technique for a child.
- During the obstructed airway skill session, participants only need to demonstrate CPR—Obstructed airway on an adult and infant and be able to point out the differences in technique for a child.

TEACHING TIPS

- You must be able to observe and evaluate each candidate's skills during each scenario.
- Place the manikins with their heads facing in the same direction during skills sessions to make it easier to clearly observe and evaluate skills.

TOPIC: SIGNS AND SYMPTOMS OF A HEART ATTACK

Time: 5 minutes

SIGNS AND SYMPTOMS OF A HEART ATTACK

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slides 67–74

Participant's Handbook: Chapter 3

- **A heart attack, also called myocardial infarction (MI), occurs when the heart muscle experiences a loss of oxygenated blood.**
- **The sooner the signs and symptoms are recognized, the better the victim's chances are for survival.**
- **Even people who have had a heart attack may not recognize the signs because each heart attack may not show the same signs.**
- Ask participants: **Name some signs and symptoms of a heart attack.**

  Answers: *Responses should include the following:*
  - *Chest discomfort or pain that is severe, lasts longer than 3 to 5 minutes, goes away and comes back, or persists even during rest*
  - *Discomfort, pressure or pain that is persistent and ranges from discomfort to an unbearable crushing sensation in the chest, possibly spreading to the shoulder, arm, neck, jaw, stomach or back, and usually not relieved by resting, changing position or taking medication*
  - *Pain that comes and goes (such as angina pectoris)*
  - *Difficulty breathing, such as at a faster rate than normal or noisy breathing*
  - *Pale or ashen skin, especially around the face*
  - *Sweating, especially on the face*
  - *Dizziness or light-headedness*
  - *Possible loss of consciousness*
  - *Nausea or vomiting*
- **Women may experience the most common signs and symptoms, such as chest pain or discomfort, but are more likely to experience other warning signs, such as shortness of breath; nausea or vomiting; stomach, back or jaw pain; or unexplained fatigue or malaise. When they do experience chest pain, it is generally atypical—sudden sharp but short-lived pain outside the breastbone.**
- **To care for a victim having a possible heart attack, you should:**
  - **Take immediate action and summon EMS personnel.**
  - **Have the victim stop any activity and rest in a comfortable position.**
  - **Loosen any tight or uncomfortable clothing on the victim.**
  - **Closely monitor the victim until EMS personnel take over, noting any changes in appearance or behavior.**
  - **Comfort the victim.**
  - **Offer an appropriate dose of aspirin if local protocols or medical direction permits.**
  - **Be prepared to perform CPR and use an AED.**
  - **Ask questions to get information that relates to the victim's condition, such as what happened, whether they have any medical conditions or is taking any medications or when was the last time they had anything to eat or drink.**
- **An appropriate dose of aspirin can help the victim who is showing signs of a heart attack if taken soon after the symptoms begin.**

TOPIC: CARDIAC CHAIN OF SURVIVAL

Time: 5 minutes

CARDIAC CHAIN OF SURVIVAL

VIDEO:

REFERENCES:

Course Presentation: Slides 75–76

Participant's Handbook: Chapter 3

- Explain to participants that the video segment will provide important information to help them recognize and provide care for a victim experiencing a heart attack.
- Show the video segment "Heart Attack and the Cardiac Chain of Survival."
- Answer participants' questions about the segment.

Science Note: *There is strong evidence that suggests that when a person is experiencing signs and symptoms of a heart attack, outcomes are improved when cardiac catheterization is performed within 90 minutes of the onset of signs and symptoms and within 60 minutes of arrival to the hospital, which is why advanced life support provided by advanced medical personnel is critical. When cardiac catheterization is not readily available, the administration of certain medications, including aspirin, within the first few hours of the onset of signs and symptoms has also been shown to be of benefit.*

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slide 77

Participant's Handbook: Chapter 3

- Pose the following scenario to participants: **A customer shopping in a supermarket suddenly collapses.**
- Ask participants: **What five steps do you think are necessary to improve this victim's chance for survival?**

  Answers: *Responses should include the 5 links in the Adult Cardiac Chain of Survival:*
  - *Recognition of the emergency and activation of the emergency response system; calling 9-1-1*
  - *Early CPR*
  - *Early defibrillation*
  - *Advanced Life support3*
  - *Integrated post-cardiac arrest care*
- Emphasize that these five steps are known as the Adult Cardiac Chain of Survival and inform participants of the correct order of the steps.
- Tell participants that they will learn more about defibrillation—the delivery of an electrical shock to help restore heart rhythm—in the next lesson.

TOPIC: CARDIAC ARREST

Time: 5 minutes

CARDIAC ARREST

LECTURE:

REFERENCES:

Course Presentation: Slides 78–80

Participant's Handbook: Chapter 3

- **Cardiac arrest is a life-threatening situation in which the heart stops beating or beats too irregularly or too weakly to circulate blood effectively.**
- **Heart attack, electrocution, respiratory arrest, drowning or other conditions may cause cardiac arrest.**
- **Signs of cardiac arrest include:**
  - **Sudden collapse**
  - **Unresponsiveness**
  - **No normal breathing**
  - **No pulse**

LECTURE: *continued* 	■ Ask participants: **What is the difference between a heart attack and cardiac arrest?** ***Answers:*** *Responses should include the following:* ○ *A heart attack occurs when the heart muscle experiences a loss of oxygenated blood.* ○ *Cardiac arrest occurs when the heart stops beating or the heart is beating too irregularly or too weakly to circulate blood effectively. The victim is unresponsive, is not breathing normally and does not have a pulse. A heart attack may cause cardiac arrest.*

TOPIC: CPR

Time: 40 minutes

CPR	
GUIDED DISCUSSION:  REFERENCES: **Course Presentation: Slides 81–87** **Participant's Handbook: Chapter 3**	■ Ask participants: **What would you do if a victim is experiencing cardiac arrest?** ***Answer:*** *Call 9-1-1 (or Summon EMS Personnel) and Perform CPR.* ■ **CPR is a combination of chest compressions and ventilations to circulate blood that contains oxygen to the brain and other vital organs of a person whose heart and breathing have stopped. CPR should be performed on a firm, flat surface.** ■ **CPR is used in combination with an AED according to local protocols until EMS personnel take over.** ■ **Effective chest compressions are needed to ensure that blood circulates to the victim's brain and other vital organs and to increase the likelihood that a successful shock can be delivered to a victim, especially if more than several minutes have elapsed since the victim's collapse.** ■ Ask participants: **How can you make sure that your chest compressions are effective?** ***Answers:*** *Responses should include the following:* ○ *Placing the victim on a firm, flat surface* ○ *Correctly positioning the hands for compressions* ○ *Compressing the chest in a straight-down manner to the proper depth* ○ *Performing compressions at the proper rate* ○ *Making sure the chest is exposed to ensure that the chest recoils between each compression* ○ *Minimizing interruptions in CPR* ■ **Once started, do not stop CPR except in one of these situations:** ○ **You notice an obvious sign of life, such as normal breathing.** ○ **An AED is ready to analyze the victim's heart rhythm.** ○ **Another trained responder or EMS personnel takes over.** ○ **You are alone and too exhausted to continue.** ○ **The scene becomes unsafe.** ■ Ask participants: **What should you do if, at any time, you notice normal breathing?** ***Answer:*** *Stop CPR and continue to monitor the victim's condition. Be prepared to resume care if necessary.* ■ **Even with the best of preparation and effort, complications can arise, including broken ribs, separation of cartilage, vomiting, frothing at the mouth and chaos at the scene. Despite your best efforts to provide quality care, not all victims of cardiac arrest survive.** ■ **Even so, you can and should continue to provide care.**

GUIDED DISCUSSION:
continued

Science Note:

- ***Chest Compressions:*** *Actual depth may be difficult to judge without the use of feedback devices, but it is critical to compress the chest AT LEAST 2 inches for an adult victim. Evidence shows that compression depths greater than 2.4 inches in the average adult lead to a higher incidence of non-life threatening injuries and should be avoided. Compression rates that exceed 120 compressions per minute also affect the quality of compressions. Evidence suggests that higher rates of compressions lead to inadequate compression depths.*
- ***High Performance CPR:*** *Evidence continues to build that the key to successful resuscitations is the delivery of high quality CPR, including uninterrupted chest compressions and ventilations.*
- ***CPR differences—Adult and Child:*** *The majority of pediatric cardiac arrests are a result of a respiratory cause such as a breathing problem (asthma/anaphylaxis), an obstructed airway, drowning or an injury. As such, ventilations and appropriate oxygenation are important for a successful resuscitation. In these situations, laryngeal spasm may occur, making passive ventilation during chest compressions minimal or non-existent. ithin the first few hours of the onset of signs and symptoms has also been shown to be of benefit.*

CPR—ADULT AND CHILD

SKILL PRACTICE & VIDEO:

REFERENCES:
Course Presentation: Slide 88
Participant's Handbook: Chapter 3

- Choose either the practice-while-you-watch or watch-then-practice method for this skill practice.
- Participants need only demonstrate adult CPR and be able to point out how it differs from performing CPR on a child, such as compressing the chest to a depth less than that for an adult.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include: compressions that are too shallow or too deep, interrupting compressions for too long or too frequently, incorrect hand position, failure to allow full recoil after each compression or inappropriate rate (speed) of compressions, incorrect rate of compressions and ventilations, inadequate ventilations, not counting out loud.
- Check off each participant's progress in the Participant Progress Log.

SKILL PRACTICE:

REFERENCES:
Participant's Handbook: Chapter 3

PRACTICE-WHILE-YOU-WATCH

- Ask participants to take their disposable gloves and resuscitation masks to the practice area.
- Explain to the participants that, for this skill, they will follow along with and practice the steps for performing CPR as they are guided by the video segment.
- Show the video segment "CPR—Adult and Child."
- Do not interrupt this skill session to lecture or communicate anything other than guidance related to skill practice. In general, answering questions should occur after the video segment (and skill session) has ended.

WATCH-THEN-PRACTICE

- Tell participants that, for this segment, they will watch the video segment without practicing until you pause it, even though the narration may say to follow along.
- Show the video segment "CPR—Adult and Child."
- Ask participants to take their disposable gloves and resuscitation masks to the practice area.
- Guide participants through the steps of the skill and evaluate completion of the skill using the skill chart.

CPR—INFANT	
VIDEO SEGMENT:  REFERENCES: **Course Presentation: Slide 89** **Participant's Handbook: Chapter 3**	■ If using the practice-while-you-watch method, move to the skill practice and show the video segment as you conduct the skill practice. ■ Explain to participants that the video segment will demonstrate the procedures for one-rescuer CPR for an infant. ■ Show the video segment "CPR—Infant." ■ Answer participants' questions about the video segment.
SKILL PRACTICE:  REFERENCES: **Participant's Handbook: Chapter 3**	■ Follow the same steps as in the previous skill practice: ○ Have participants practice the skill. ○ Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice. ○ Examples of common errors to point out include: compressions that are too shallow or too deep, interrupting compressions for too long or too frequently, incorrect finger position and failure to allow full recoil after each compression, inappropriate rate (speed) of compressions, incorrect rate of compressions and ventilations, inadequate ventilations or not counting out loud. ○ Check off each participant's progress in the Participant Progress Log.

TOPIC: TWO-RESCUER CPR—ADULT AND CHILD

Time: 15 minutes

TWO-RESCUER CPR	
LECTURE:  REFERENCES: **Course Presentation: Slides 90–92** **Participant's Handbook: Chapter 3**	■ **Two-rescuer CPR is used when two rescuers arrive on the scene at the same time or when one rescuer arrives on the scene when CPR is in progress.** ■ **In two-rescuer CPR, one rescuer gives ventilations while the other performs chest compressions.** ■ **Rescuers switch positions at least every 2 minutes or when the AED is analyzing.** ■ **When CPR is in progress by one rescuer and a second rescuer arrives, the second rescuer should confirm whether EMS personnel have been summoned. If not, the second rescuer does so before getting the AED or assisting with care.** ■ **When performing two-rescuer CPR on a child or infant, rescuers should change the compression-to-ventilation ratio from 30 compressions to 2 ventilations (30:2) to 15 compressions to 2 ventilations (15:2).** ■ **This provides more frequent ventilations for children and infants.**

TWO-RESCUER CPR—ADULT AND CHILD

VIDEO SEGMENT:

REFERENCES:

Course Presentation: Slide 93

Participant's Handbook: Chapter 3

- Explain to participants that the video segment will demonstrate the procedures for Two-Rescuer CPR for an adult or child.
- Show the video segment "Two-Rescuer CPR—Adult and Child."
- Answer participants' questions about the video segment.

SKILL SESSION:

REFERENCES:

Participant's Handbook: Chapter 3

- Pair up participants and, using a manikin and a resuscitation mask, conduct the skill practice.
- Participants only need to demonstrate either adult two-rescuer CPR or child two-rescuer CPR and be able to point out how one differs from the other, such as depth of compressions and ratio of compressions to ventilations.
- Guide participants through the steps of the skill.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include: compressions that are too shallow or at an inappropriate rate, compressing and ventilating at the same time, failing to call for a position change or using an incorrect cycle of compressions and ventilations.
- Check off each participant's progress on the Participant Progress Log.

TWO-RESCUER CPR—INFANT

VIDEO SEGMENT:

REFERENCES:

Course Presentation: Slide 94

Participant's Handbook: Chapter 3

- Explain to participants that the video segment will demonstrate the procedures for two-rescuer CPR for an infant.
- Show the video segment "Two-Rescuer CPR—Infant."
- Answer participants' questions about the video segment.

GUIDED DISCUSSION:

REFERENCES:

Course Presentation: Slide 95

Participant's Handbook: Chapter 3

- Ask participants: **How does the compression technique for two-rescuer CPR on an infant differ?**
  Answer: *When providing two-rescuer CPR to an infant, rescuers perform a different technique, called the encircling thumbs technique.*

SKILL PRACTICE:  REFERENCES: **Participant's Handbook: Chapter 3**	■ Pair up participants and, using a manikin and a resuscitation mask, conduct the skill practice. ■ Guide participants through the steps of the skill. ■ Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice. ■ Examples of common errors to point out include: failure to use the encircling thumbs technique when giving compressions, compressions that are too shallow or at an inappropriate rate, compressing and ventilating at the same time, failing to call for a position change, or using an incorrect cycle of compressions and ventilations. ■ Check off each participant's progress on the Participant Progress Log.

TOPIC: CPR WITH AIRWAY OBSTRUCTION

Time: 10 minutes

CPR WITH AIRWAY OBSTRUCTION	
LECTURE:  REFERENCES: **Course Presentation: Slides 96–97** **Participant's Handbook: Chapter 3**	■ **If a victim who is choking becomes unresponsive, carefully lower them to a firm, flat surface, send someone to get an AED, and summon EMS if you have not already done so.** ■ **Immediately begin CPR starting with chest compressions.** ■ **As you open the airway to give ventilations, look in the person's mouth for any visible object.** ■ **If you can see it, use a finger sweep motion to remove it. If you don't see the object, do not perform a blind finger sweep, but continue CPR.**
VIDEO SEGMENT:  REFERENCES: **Course Presentation: Slide 98** **Participant's Handbook: Chapter 3**	■ Explain to participants that the video segment will demonstrate CPR for a victim with an airway obstruction. ■ Show the video segment "CPR—Obstructed Airway." ■ Answer participants' questions about the segment.
SKILL PRACTICE:  REFERENCES: **Participant's Handbook: Chapter 3**	■ Using manikins and resuscitation masks, have participants work in pairs as they practice the skill on a manikin. ■ Participants only need to demonstrate CPR—Obstructed airway on an adult and infant and be able to point out the differences in technique. ■ Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice. ■ Examples of common errors to point out include: using abdominal thrusts instead of chest compressions, failing to check the mouth for an object, performing a blind finger sweep, compressing too little or too much, failing to give ventilations, using the wrong finger to clear the object from the mouth or incorrect compression to ventilation ratio, not counting out loud. ■ Check off each participant's progress on the Participant Progress Log.

TOPIC: LESSON WRAP-UP

Time: 5 minutes

LESSON WRAP-UP

LECTURE:

REFERENCES:

Course Presentation: Slides 99–104

Participant's Handbook: Chapter 3

- In review, ask participants the following questions and answer any participants' questions:
- **A middle-aged person is complaining of severe pressure in their chest and pain that is radiating to their shoulder. The victim's friend has called 9-1-1 because the victim is sweating profusely, breathing rapidly and appears very anxious. The victim states, "I feel like I can't catch my breath. I still feel the pressure in my chest but it has gotten a little bit better." What signs and symptoms is the victim exhibiting that would lead you to suspect that they are experiencing a heart attack?**

  ***Answers*:** *Responses should include the following:*
  - *Complaints of severe pressure in their chest with pain that radiates to their shoulder*
  - *Profuse sweating and rapid breathing*
  - *Complaints of difficulty breathing*
- **In the previous scenario, what links in the Adult Cardiac Chain of Survival have been met?**

  Answer: *Only the first step of the chain has been met, early recognition of the emergency and early activation of the EMS system.*
- **What is the cycle of compressions to ventilations when performing one-rescuer CPR?**

  Answer: *When performing one-rescuer CPR, cycles of 30 chest compressions and 2 ventilations are given.*
- **When performing CPR on a child, a rescuer compresses the chest to which depth?**

  Answer: *When performing CPR on a child, the rescuer compresses the chest about 2 inches.*
- **What would you do if a victim begins to vomit while you are performing CPR?**

  Answer: *Stop CPR and turn the victim as a unit, while supporting the head and neck, onto their side. After vomiting stops, clear the victim's airway by wiping out the victim's mouth using a finger sweep and suction device, if one is available and you are trained to use it, and then turn the victim onto their back and continue with ventilations.*

SKILL CHARTS AND ASSESSMENT TOOLS

In addition to performing the steps listed in the skill chart in the correct order, participants must meet the criteria listed at the proficient level to be checked off for this skill. Assessment criteria that are general for the category of skills, as well as specific to the skill, must be met.

CPR

SKILL CHART: CPR—ADULT, CHILD AND INFANT

If the victim is not breathing and has no pulse:

1. Give 30 chest compressions.
   - Adult or Child: Place the heel of one hand in the center of the chest on the lower half of sternum with the other hand on top.
     - Keep your arms as straight as possible and shoulders directly over your hands.
   - Infant: Place one hand on the infant's forehead. Place two or three fingers from your hand closest to the infant's feet on the center of the chest just below the nipple line. The fingers should be oriented so they are parallel, not perpendicular, to the sternum.
   - Push hard, push fast.
     - Compress the chest at a depth of:
       - Adult: At least 2 inches but not more than 2.4 inches
       - Child: About 2 inches
       - Infant: About 1½ inches
     - Compress the chest at a rate of at least 100 per minute but no more than 120 per minute.
       - Let the chest fully recoil between each compression. Give 2 ventilations.
2. Give 2 ventilations.
3. Perform cycles of 30 compressions and 2 ventilations.

Continue CPR until:

- You see an obvious sign of life, such as normal breathing or victim movement.
- An AED is ready to analyze the victim's heart rhythm.
- Another trained responder or responders take over, such as a member of your safety team or EMS personnel, and relieve you from giving compressions or ventilations.
- You are alone and too exhausted to continue.
- The scene becomes unsafe.

SKILL ASSESSMENT TOOL: CPR—ADULT AND CHILD		
Criteria	**Proficient**	**Not Proficient**
Victim is on a flat, firm surface	■ If necessary, moves victim to a flat, firm surface	■ Attempts CPR on a soft surface
ADULT: Compresses chest at least 2 inches deep for an adult	■ Compresses the chest straight down at least 2 inches for at least 24 of the 30 compressions	■ Compresses the chest less than 2 inches for 7 or more times per 30 compressions
CHILD: Compresses chest about 2 inches deep for a child	■ Compresses the chest straight down about 2 inches for at least 24 of the 30 compressions	■ Compresses the chest less than 1¾ inches for 7 or more times per 30 compressions
Lets chest rise completely before pushing down again	■ Compresses and fully releases the chest without pausing or taking hands off chest for 24 of the 30 compressions	■ Pauses while compressing or releasing the chest for 7 or more times per 30 compressions
Compresses chest at a rate of at least 100 times per minute (30 compressions in about 18 seconds)	■ Compresses center of the chest 24–36 times in about 18 seconds	■ Compresses the chest less than 24 or more than 36 times in about 18 seconds
Give ventilations	■ Gives 2 ventilations that make the chest clearly rise and that last about 1 second each	■ Gives 2 ventilations that do not make the chest clearly rise and that last 2 or more seconds each
Return to compressions	■ Gives ventilations and returns to chest compressions within 3–6 seconds	■ Gives ventilations and returns to compressions but takes 7 or more seconds

SKILL ASSESSMENT TOOL: CPR—INFANT		
Criteria	**Proficient**	**Not Proficient**
Victim is on a flat, firm surface	■ If necessary, moves victim to a flat, firm surface	■ Attempts CPR on a soft surface
Compress chest about 1½ inches deep for an infant	■ Compresses the chest straight down about 1½ inches for at least 24 of the 30 compressions	■ Compresses the chest less than 1½ inches for 7 or more times per 30 compressions
Let chest rise completely before pushing down again	■ Compresses and releases the chest without pausing for 24 of the 30 compressions	■ Pauses while compressing or releasing the chest for 7 or more times per 30 compressions
Compress chest at a rate of at least 100 times per minute (30 compressions in about 18 seconds)	■ Compresses center of the chest 24–36 times in about 18 seconds	■ Compresses the chest less than 24 or more than 36 times in about 18 seconds
Give ventilations	■ Gives 2 ventilations that make the chest clearly rise and that last about 1 second each	■ Gives 2 ventilations that do not make the chest clearly rise and that last 2 or more seconds each
Return to compressions	■ Gives ventilations and returns to chest compressions within 3–6 seconds	■ Gives ventilations and returns to compressions but takes 7 or more seconds

TWO-RESCUER CPR

SKILL CHART: TWO-RESCUER CPR—ADULT, CHILD AND INFANT

If the victim is not breathing and has no pulse:

1. Rescuer 2 finds the correct hand position to give chest compressions.
   - Adult: Place two hands on the center of the chest.
   - Child: Place one or two hands on the center of the chest.
   - Infant: Use the encircling thumbs technique.
     - Place thumbs next to each other on the center of the chest just below the nipple line.
     - Place both hands underneath the infant's back and support the infant's back with your fingers.
     - Ensure that your hands do not compress or squeeze the side of the ribs.
2. Rescuer 2 gives chest compressions.
   - Push hard, push fast.
     - Compress the chest at a depth of:
       - Adult: At least 2 inches but not more than 2.4 inches
       - Child: About 2 inches
       - Infant: About 1½ inches
     - Compress the chest at a rate of at least 100 per minute but no more than 120 per minute.
3. Rescuer 1 gives 2 ventilations.
4. Perform about 2 minutes of compressions and ventilations.
   - Adult: Perform cycles of 30 compressions and 2 ventilations.
   - Child and Infant: Perform cycles of 15 compressions and 2 ventilations.
5. Rescuers change positions at least every 2 minutes (5 cycles of 30 compressions and 2 ventilations) and/or while the AED is analyzing the heart rhythm.
   - Rescuer 2 calls for a position change by using the word "change" at the beginning of the last compression cycle and again at the end of the last compression cycle:
     - Adult: Use the word "change" in place of the word "30."
     - Child: Use the word "change" in place of the word "15."
   - Rescuer 1 gives 2 ventilations.
   - Rescuer 2 quickly moves to the victim's head with their own mask.
   - Rescuer 1 quickly moves into position at the victim's chest and locates correct hand position on the chest.
   - Changing positions should take less than 5 seconds.
6. Rescuer 1 begins chest compressions.
   - Continue cycles of compressions and ventilations.

Continue CPR until:

- You see an obvious sign of life, such as normal breathing or victim movement.
- An AED is ready to analyze the victim's heart rhythm.
- Another trained responder or responders take over, such as a member of your safety team or EMS personnel, and relieve you from giving compressions or ventilations.
- You are alone and too exhausted to continue.
- The scene becomes unsafe.

SKILL ASSESSMENT TOOL: TWO-RESCUER CPR—ADULT, CHILD AND INFANT		
Criteria	**Proficient**	**Not Proficient**
Change positions	■ Changes positions in 5 seconds	■ Changes positions but takes more than 5 seconds
Compress the chest and give ventilations at the appropriate rate	■ ADULT: Cycles consist of 30 compressions and 2 ventilations ■ CHILD AND INFANT: Cycles consist of 15 compressions and 2 ventilations	■ ADULT: Cycles consist of less or more than 30 compressions and 2 ventilations ■ CHILD AND INFANT: Cycles consist of less or more than 15 compressions and 2 ventilations

CPR WITH AIRWAY OBSTRUCTION

SKILL CHART: CPR WITH AIRWAY OBSTRUCTION

Note: *If a person who is choking becomes unresponsive, summon EMS if you have not already done so then lower them to a firm, flat surface and immediately begin CPR, starting with chest compressions.*

1. Give 30 chest compressions.
2. Before attempting ventilations, open the victim's mouth and look for the object.
   - If you see an object in the victim's mouth, carefully remove it using your finger.
   - Never perform a blind finger sweep.
3. Give 2 ventilations.

Continue to provide care by repeating this cycle until:

- The victim begins to breathe on their own.
- Another trained rescuer takes over.
- More advanced medical personnel, such as EMS personnel, take over.
- You are too exhausted to continue.
- The scene becomes unsafe.

Note: *Continuing cycles of 30 compressions and 2 ventilations is the most effective way to provide care. Even if ventilations fail to make the chest rise, compressions may help clear the airway by moving the blockage to the upper airway where it can be seen and removed.*

SKILL ASSESSMENT TOOL: CPR WITH AIRWAY OBSTRUCTION		
Criteria	**Proficient**	**Not Proficient**
Victim is on flat, firm surface	■ If necessary, moves victim to a flat, firm surface	■ Attempts CPR on a soft surface
ADULT: Compress chest at least 2 inches deep for an adult	■ Exposes the chest ■ Compresses the chest straight down, at least 2 inches ■ Allows the chest to fully recoil between compressions (26 of 30 compressions)	■ Does not expose the chest ■ Compresses the chest less than 2 inches ■ Does not allow the chest to fully recoil between compressions
CHILD: Compress chest about 2 inches deep for a child	■ Compresses the chest straight down about 2 inches ■ Exposes the chest ■ Allows the chest to fully recoil between compressions (26 of 30 compressions)	■ Compresses the chest less than or more than 2 inches ■ Does not expose the chest ■ Does not allow the chest to fully recoil between compressions
INFANT: Compress chest about 1 ½ inches deep for an infant	■ Exposes the chest ■ Compresses the chest straight down, about 1½ inches	■ Does not expose the chest ■ Compresses the chest less than 1½ inches
Opens the victim's mouth to look for a visible object	■ Opens the victim's mouth ■ If an object is visible, performs a finger sweep to remove the object	■ Does not open the victim's mouth ■ Performs a blind finger sweep
Gives ventilations	■ Opens the airway and gives 2 ventilations that last about 1 second each	■ Does not open the airway or give ventilations ■ Gives ventilations that last 2 or more seconds each
Return to compressions	■ Minimize interruptions to less than 5 seconds	■ Gives ventilations and returns to compressions but takes 5 or more seconds

USING AN AUTOMATED EXTERNAL DEFIBRILLATOR

Lesson Length: 1 hour, 35 minutes

GUIDANCE FOR THE INSTRUCTOR

To complete this session and meet the lesson objectives, you must:

- Discuss all points in the topic When the Heart Stops.
- Discuss all points in the topic Using an AED.
- Show the video segment "Using an AED."
- Conduct the skill practice for Using an AED.
- Show the video segment "Using an AED—CPR in Progress."
- Discuss all points in the topic Using an AED—CPR in Progress.
- Conduct the skill practice for Using an AED—CPR in Progress.
- Guide the discussion on AED Precautions.
- Conduct the activity—AED Precautions: Fact or Fiction.
- Discuss all points in the topic AED Maintenance.
- Conduct the Putting It All Together Multiple-Rescuer Response scenarios.

LESSON OBJECTIVES

- Describe what defibrillation is and how it works.
- Describe the role and importance of early defibrillation in cardiac arrest.
- List the general steps for using an automated external defibrillator (AED).
- Identify precautions for using an AED.
- Demonstrate how to use an AED (adult, child or infant).
- Describe the differences in using an AED (adult, child or infant) when CPR is in progress.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Latex-free nitrile gloves
- Resuscitation Masks: Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)
- CPR Manikins:
  - Adult and infant manikins (one for every two participants)
  - Child manikin (optional, one for every two participants)
- Automated External Defibrillator (AED) training devices (one for every two participants)
- AED training pads (one set of adult and one set of pediatric training pads for every two participants)
- Multiple-Rescuer Response scenarios flow sheets (Appendix B) and Scenario Assessment Tools (Appendix F)

- Manikin decontamination supplies (decontaminating solution, 4'' × 4'' gauze pads, soap and water, brush, basins or buckets, latex-free nitrile gloves and any accessories that may be recommended by the manufacturer of the manikin)

LESSON PREPARATION

- To save time, have all equipment, materials, and supplies set up before the start of the class.
- Print or have available worksheet 5.1 "AED Fact or Fiction"
- Ensure participants have the skill sheets from the *CPR/AED for Professional Rescuers Handbook* to practice the skills in this lesson:
  - Using an AED

INSTRUCTOR NOTES

- Participants only need to demonstrate how to use an AED on either an adult, a child or an infant and be able to point out the differences in the use of an AED for the other two age groups.

TEACHING TIPS

- You must be able to observe and evaluate each candidate's skills during each scenario.
- Place the manikins with their heads facing in the same direction during skills sessions to make it easier to clearly observe and evaluate skills.
- When practicing using the AED, guide participants through the skill without each group turning on their AED units so your unit is the only one audible. Once you have led them through the skill initially, have the groups repeat with their units turned on so they can follow the audible prompts of their unit(s). Ensure they turn the volume of each unit to a level their group can hear but not so loud as to disrupt other groups also trying to hear their unit.

TOPIC: WHEN THE HEART STOPS

Time: 5 minutes

WHEN THE HEART STOPS	
GUIDED DISCUSSION: REFERENCES: **Course Presentation: Slides 106–107** **Participant's Handbook: Chapter 3**	■ **Any damage to the heart muscle from disease or injury can disrupt the heart's electrical system.** ■ **AEDs are portable electronic devices that analyze the heart's rhythm and provide an electrical shock.** ■ **Defibrillation is the delivery of an electrical shock that may help re-establish an effective rhythm.** ■ **Each minute that CPR and defibrillation are delayed, the victim's chance for survival is reduced by about 10 percent.**

TOPIC: USING AN AED

Time: 15 minutes

USING AN AED

LECTURE:

REFERENCES:

Course Presentation: Slides 108–110

Participant's Handbook: Chapter 3

- **When cardiac arrest occurs, use an AED as soon as it is ready to use.**
- **If the AED advises that a shock is needed, follow protocols to provide 1 shock followed by about 2 minutes of CPR.**
- **If CPR is in progress, do not interrupt chest compressions until the AED is turned on, the AED pads are applied and the AED is ready to analyze the heart rhythm.**
- **AEDs may be equipped with pediatric AED pads; however, pediatric pads are appropriate only for use on infants and children up to 8 years of age or weighing less than 55 pounds.**
  - **If pediatric-specific equipment is not available and local protocols allow, you can use AED pads designed for adults.**
  - **If the AED pads risk touching each other because of the smaller chest size, use the anterior (front)/posterior (back) method of pad placement.**

VIDEO:

REFERENCES:

Course Presentation:

Slide 111

Participant's Handbook: Chapter 3

- Explain to participants that the video segment will demonstrate the procedures for using an AED.
- Show the video segment "Using an AED."
- Answer participants' questions about the segment.

Science Note: *For every 1 minute of delayed defibrillation, the rate of survival drops 7 to 10 percent. AEDs allow for compressions post-analysis while the AED is charging. Lifeguards and professional rescuers may perform compressions from the time the shock advised prompt is noted through the time that the prompt to clear occurs, just prior to depressing the shock button. Emphasize the need to follow the manufacturer's recommendations and their local protocols and practices.*

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 3

- Using manikins, resuscitation masks and training AEDs with the appropriately sized AED training pads, have participants work in pairs with their AED skill sheets to lead each other as they practice the skill.
- Participants only need to demonstrate how to use an AED on either an adult, a child or an infant and be able to point out the differences in the use of an AED for the other two age groups.
- Observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Examples of common errors to point out include: not wiping the victim's chest, using pediatric AED pads on an adult, failing to resume CPR after delivery of a shock or incorrect CPR performance.

USING AN AED—CPR IN PROGRESS

LECTURE:

REFERENCES:

Course Presentation:

Slide 112

Participant's Handbook: Chapter 3

- **When one rescuer is on the scene, that rescuer begins CPR and instructs someone to summon EMS personnel and obtain the AED, if one is available.**
- **When the assisting responder arrives, they prepare the AED for use while the primary responder continues CPR.**
- **If at any time either rescuer notices an obvious sign of life, such as normal breathing, they should stop CPR and monitor the victim's condition and administer emergency oxygen, if it is available and rescuers are trained to administer emergency oxygen.**
- Explain to participants that they will practice using an AED—CPR In-Progress multiple times later in the course.

VIDEO:  REFERENCES: **Course Presentation:** **Slide 113** **Participant's Handbook:** **Chapter 3**	■ Explain to participants that the video segment will demonstrate the procedure for using an AED when CPR is in progress. ■ Show the video segment "Using an AED—CPR in Progress." ■ Answer participants' questions about the segment.

TOPIC: AED PRECAUTIONS

Time: 10 minutes

AED PRECAUTIONS	
GUIDED DISCUSSION:  REFERENCES: **Course Presentation:** **Slides 114–115** **Participant's Handbook:** **Chapter 3**	■ Ask participants: **"What are the general precautions to take when using an AED?"** ***Answers include:*** ○ *Do not use alcohol to wipe the victim's chest dry. Alcohol is flammable.* ○ *Do not touch the victim while the AED is analyzing. Touching or moving the victim could affect the analysis.* ○ *Do not touch the victim while the device is defibrillating. You or someone else could be shocked.* ○ *Do not defibrillate a victim when around flammable or combustible materials, such as gasoline or free-flowing oxygen. (If oxygen is begin administered to a victim when an AED is ready to be used, make sure to close the tank before shocking.)* ○ *Do not use an AED on a victim wearing a medication patch on the chest until the patch and medication is removed. With a gloved hand, remove any patches from the chest and wipe away any residual medication before applying the pads.*
ACTIVITY:  REFERENCES: **Course Presentation:** **Slide 116** **Participant's Handbook:** **Chapter 3**	■ Divide the participants into small groups and provide each group with Activity Worksheet 5.1—Using an AED in Unique Situations—Fact or Fiction. ■ Refer participants to Chapter 3, Cardiac Emergencies, for information to help them with this activity. Circulate among the groups to monitor progress and provide assistance when necessary. ■ Instruct groups to indicate if each statement is fact or fiction and provide a rationale for their answer along with any other important information regarding the statement. ■ Allow up to 5 minutes for the group work. Re-assemble the class and call on group leaders to share their answer to the questions; offer corrections when needed.

ACTIVITY WORKSHEET 5.1—USING AN AED IN UNIQUE SITUATIONS: FACT OR FICTION

Answers: *Responses should include the following:*

FACT	FICTION	**1. Do not use an AED and/or pads designed for adults on an infant or child younger than 8 years of age or weighing less than 55 pounds.**
		Use pediatric pads, unless pediatric pads specific to that device are unavailable.
FACT	FICTION	**2. It is safe to use an AED in rain or snow.**
		It is safe to use AEDs in all weather conditions. However, if possible, move the victim to a shelter to protect them from rain or snow. ■ *If the victim is lying in water, move them to a relatively dry area. Be sure there are no puddles of water around you, the victim or the AED.* ■ *Remove the victim's wet clothing and wipe the chest dry before placing the AED pads.* ■ *Do not delay defibrillation when taking steps to provide for a dry environment.* ■ *Check the manufacturer's instructions for specific information about the AED you will be using.*
FACT	**FICTION**	**3. An AED cannot be used on a pregnant person.**
		Defibrillation shocks transfer no significant electrical current to the fetus. Local protocols and medical direction should be followed.
FACT	**FICTION**	**4. If a victim has a body piercing or is wearing jewelry, you should remove the item before using an AED.**
		Jewelry and body piercings do not need to be removed when you use an AED. However, do not place the AED pads directly over metallic jewelry or body piercings.
FACT	**FICTION**	**5. Never shock someone who has an implantable cardioverter-defibrillator (ICD) or pacemaker device.**
		If the implanted device is visible, or you know that the victim has one, do not place the AED pads directly over the device.
FACT	FICTION	**6. If you see a transdermal medication patch you should use a gloved hand to remove it.**
		Avoid wasting time trying to identify patches. Since you might absorb nitroglycerin or other medications, remove any patch you see on the victim's chest with a gloved hand.
FACT	**FICTION**	**7. Never shock a person who is suffering from traumatic injuries.**
		If a victim is in cardiac arrest resulting from traumatic injuries, you may still use an AED.

ACTIVITY WORKSHEET 5.1—USING AN AED IN UNIQUE SITUATIONS: FACT OR FICTION, *CONTINUED*		
FACT	FICTION	**8. Never shock a victim on a metal surface.**
		It is safe to deliver a shock to a victim in cardiac arrest on a metal surface. Care should be taken that AED pads do not contact the conductive (metal) surface and that no one is touching the victim when the shock button is pushed.
FACT	FICTION	**9. Use alcohol wipes to clean the victim's chest.**
		Alcohol is flammable.
FACT	FICTION	**10. Continue CPR while the AED is analyzing.**
		Touching or moving the victim could affect the analysis.

TOPIC: PUTTING IT ALL TOGETHER: MULTIPLE-RESCUER RESPONSE

Time: 30 minutes

PUTTING IT ALL TOGETHER: MULTIPLE-RESCUER RESPONSE

VIDEO:

REFERENCES:

Course Presentation:

Slide 117

Participant's Handbook: Chapter 3

- Explain to participants that the video segment will demonstrate the procedures for a multiple-rescuer response with CPR in progress.
- Show the video segment "Putting It All Together—Multiple-Rescuer Response"
- Answer participants' questions about the segment.

SKILL DRILL—MULTIPLE-RESCUER RESPONSE

SKILL PRACTICE:

REFERENCES:

Participant's Handbook: Chapter 3

Instructor's Note: *The purpose of multiple-rescuer response scenarios is for participants to gain experience using critical thinking, communicating with fellow responders and in giving care as a part of a team response. Participants should be able to identify and prioritize care steps as rescuers enter the scene or exit the scene in a staggered fashion.*

- Do not assign the roles such as primary or secondary rescuer or AED or BVM operator. Instead allow participants to prioritize and take action. For example, the first rescuer with gloves on should start the care step immediately, not wait for the other responder to get ready because it's not their "assigned role."
- Inform the participants that during the scenarios, you will provide them with prompts related to the situation to include results of their actions (ex, the victim has a pulse, the victim is not breathing, etc.) but they will need to communicate with other rescuers and prioritize action.

SKILL PRACTICE: *continued* 	■ Inform participants that these scenario will be similar to the scenario included in the final skill scenarios. In addition to receiving a team pass/fail rating, each individual on the team will receive a pass/fail rating for their performance. ■ Observe each participant's performance of the skill and provide global and individual feedback during the scenario to correct common mistakes or commend correct skill practice. ■ Examples of common skill errors to point out include: compressions that are too shallow or too deep, interrupting compressions for too long or too frequently, incorrect hand position, and failure to allow full recoil after each compression or inappropriate rate (speed) of compressions, failure to give two initial ventilations to a drowning victim before starting CPR. ■ Examples of common multiple rescuer team response errors include lack of clear, effective communication between rescuers, failure to prioritize care or take action without being given an "assigned role", inability to clearly and decisively rotate through roles throughout the scenario, interrupting compressions for too long during a position change or failure to change positions during multiple-rescuer CPR. ■ Divide participants into groups of four and conduct the multiple-rescuer response scenarios listed in Appendix B. ■ Each participant should have the opportunity to practice in at least two different roles. To achieve this without assigning specific roles, assign the participants who acted as the first rescuers to arrive on scene in one scenario to be the additional responders arriving with additional equipment in another scenario.

TOPIC: LESSON WRAP-UP

Time: 5 minutes

LESSON WRAP-UP	
LECTURE:  REFERENCES: **Course Presentation: Slides 118-119** **Participant's Handbook: Chapter 3**	■ In review, ask participants the following questions and answer any participants' questions: ■ **Why is early CPR and defibrillation such an important component in the Cardiac Chain of Survival?** **Answer:** *For each minute that CPR and defibrillation are delayed, the victim's chance for survival is reduced by 10 percent.* ■ **You are the assisting responder on the scene. EMS personnel have been summoned and an AED is available. When should you apply the AED pads?** **Answer:** *Apply the AED pads as soon as the AED is ready to use.*

SKILL CHARTS AND SKILL ASSESSMENT TOOL

In addition to performing the steps listed in the skill charts in the correct order, participants must meet the criterion at the proficient level to be checked off for a skill.

AED

SKILL CHART: USING AN AED

If the victim is not breathing and has no pulse:

1. Turn on the AED and follow the voice and/or visual prompts.
2. Wipe the victim's bare chest dry.

Tip: Remove any medication patches with a gloved hand.

3. Attach the AED pads to the victim's bare, dry chest.
   - Place one pad on the victim's upper right chest and the other pad on the left side of the chest.
     - For a child or an infant: Use pediatric AED pads, if available. If the pads risk touching each other, place one pad in the middle of the child's chest and the other pad on the child's back, between the shoulder blades.
4. Plug in the connector, if necessary.
5. Stand clear.
6. Analyze the heart rhythm.
   - Push the Analyze button, if necessary. Let the AED analyze the heart rhythm.
7. Deliver a shock or perform CPR based on the AED recommendation.
   - If a shock is advised:
     - Make sure *no one*, including you, is touching the victim.
     - Say, "Everyone, stand clear!"
     - Deliver the shock by pushing the "Shock" button, if necessary.
     - After delivering the shock, perform about 2 minutes of CPR.
     - Continue to follow the prompts of the AED.
   - If no shock is advised:
     - Perform about 2 minutes of CPR.
     - Continue to follow the prompts of the AED.

SKILL ASSESSMENT TOOL: USING AN AED		
Criteria	**Proficient**	**Not Proficient**
Attaches AED pads to bare chest	■ Places one pad on the upper right chest and one on the left side of the chest	■ Places one pad on the upper left chest ■ Places one pad on the lower right side of the chest
Makes sure that pads do not touch (child or infant)	■ Places pads on the chest so that they are separated from each other ■ Places one pad in the middle of the chest and one on the back centered between the shoulder blades ■ Places pads so that the heart is between the two pads	■ Places pads on the chest, but pads touch each other ■ Places the center of one pad more than 2 inches from the center of the chest ■ Places the center of one pad more than 2 inches from the center of both shoulder blades
Makes sure that no one is touching the victim	■ Says, "Everyone, stand clear!" before pushing the "Analyze" button, if necessary ■ Says, "Everyone stand clear!" before pushing the "Shock" button, if necessary	■ Does not say, "Everyone, stand clear!" ■ Pushes the "Analyze" button if necessary, before saying, "Everyone, stand clear!" ■ Pushes the "Shock" button, if necessary, before saying, "Everyone, stand clear!"
After delivering the shock, or if no shock is advised, performs about 2 minutes of CPR	■ Returns to chest compressions within 5 seconds	■ Returns to chest compressions after 6 or more seconds

Using an AED in Unique Situations—Fact or Fiction

ACTIVITY WORKSHEET 5.1

FACT	FICTION	1. Do not use an AED and/or pads designed for adults on an infant or child younger than 8 years of age or weighing less than 55 pounds.
FACT	FICTION	2. It is safe to use an AED in rain or snow.
FACT	FICTION	3. An AED cannot be used on a pregnant person.
FACT	FICTION	4. If a victim has a body piercing or is wearing jewelry, you should remove the item before using an AED.
FACT	FICTION	5. Never shock someone who has an implantable cardioverter-defibrillator (ICD) or pacemaker device.
FACT	FICTION	6. If you see a transdermal medication patch you should use a gloved hand to remove it.
FACT	FICTION	7. Never shock a person who is suffering from traumatic injuries.
FACT	FICTION	8. Never shock a victim on a metal surface.
FACT	FICTION	9. Use alcohol wipes to clean the victim's chest.
FACT	FICTION	10. Continue CPR while the AED is analyzing.

COURSE WRAP-UP

Lesson Length: 1 hour

GUIDANCE FOR THE INSTRUCTOR

- Administer the final written exam.
- Conduct the final skill scenario.

LESSON OBJECTIVES

- Decide what care to provide for breathing and cardiac emergencies.

ADDITIONAL MATERIALS, EQUIPMENT AND SUPPLIES

- Nitrile, latex-free gloves
- Resuscitation Masks—Adult and pediatric pocket masks with a compatible one-way valve OR a combination mask (one for the instructor and one for each participant)
- CPR Manikins:
  - Adult and infant manikins (one for every two participants)
  - Child manikin (optional, one for every two participants)
- Automated External Defibrillator (AED) training devices (one for every two participants)
- Bag-valve-mask (BVM) resuscitators (one for every two participants)
- AED training pads (one set of adult and one set of pediatric training pads for every two participants)
- Manikin decontamination supplies (decontaminating solution, 4" × 4" gauze pads, soap and water, brush, basins or buckets, latex-free nitrile gloves and any accessories that may be recommended by the manufacturer of the manikin)
- Copies of Final Written Exams A and B and answer sheets (one exam, either Exam A or Exam B, per participant)
- Answer Keys for Final Written Exams A and B
- Multiple-Rescuer Response Flow Sheets (Appendix B) and Scenario Assessment Tools (Appendix F)

INSTRUCTOR NOTES

- If a participant does not successfully complete the written exam, they should be counseled to study further before retaking another version of the written exam.
- For the multiple-rescuer response final skills exam scenario:
  - Each participant is only required to be evaluated successfully in one scenario.
  - Although participants have successfully completed their scenario for evaluation, they may be needed to rotate into an additional scenario to have enough rescuers to participate in the scenario. It is not necessary to evaluate them in the additional role.
  - If a participant is unsuccessful in one scenario, they have the opportunity to attempt a different scenario but must be evaluated in the "first responder on the scene" role. It is recommended that instructors allow the unsuccessful participant re-attempt in another scenario.
- If a participant is unsuccessful in passing the course, have a private discussion with the participant about any course objectives that were not met.

TEACHING TIPS

- You must be able to observe each participant's performance of the skill and provide global and individual feedback during skill practice to correct common mistakes or commend correct skill practice.
- Set up groups so that you can observe each group, but allow enough room for the groups to conduct the skills and scenarios without disrupting each other or causing injury.

TOPIC: FINAL WRITTEN EXAM

Time: 25 minutes

FINAL WRITTEN EXAM	
ACTIVITY: 	■ Tell participants that they will now take Section 2 of the final written exam on the information covered in Lessons 1 through 5. ■ They may not use their manual or notes to find the answers. ■ Hand out an exam and answer sheet to each participant and ask them to only write on the answer sheet. ■ Tell participants to put away all belongings including mobile devices. ■ Tell participants to come to you or raise their hand when they have finished the exam or if they have questions. ■ Once exams are completed, collect all exams and answer sheets. Grade the exam using the answer key. ■ Hand back the exam and review it with participants. Collect all exams, as the exam is a standard exam that participants should not be allowed to keep. ■ Make arrangements for those participants who score less than 80 percent to review the material and retake the opposite version of the exam.

TOPIC: FINAL SKILL SCENARIO

Time: 30 minutes

FINAL SKILL SCENARIO: MULTIPLE-RESCUER RESPONSE

ACTIVITY:

- Divide participants into groups of four.
- Do not assign roles such as primary responder or secondary responder. Instead, assign two participants as the first to arrive on scene and two participants as the assisting responders who arrive with the "crash bag" containing a BVM and AED.
- Tell participants that you will not assign specific roles (aside from first to arrive on scene); instead, they will be responsible for prioritizing, communicating and taking action. For example, the first responder with gloves on should start to provide care immediately
- Rotate teams and scenarios so that each participant has the opportunity to act as an initial rescuer (first on scene) for evaluation at least once.
- Explain to participants that during the final skill scenarios, they will be evaluated on:
  - Individual performance and their ability to achieve skill competencies for the individual skills that they are responsible for.
  - Overall team response performance, demonstrating the ability to work effectively as part of a team to prioritize care, take action without following an assigned role and communication with fellow responders.
- For each group, choose from multiple-rescuer response scenarios 1 and 2 on the multiple-rescuer response scenarios flow sheets in Appendix B.
- Read the scenario and provide the appropriate prompts (per the scenario sheet).
- Use the Multiple-Rescuer Response Assessment Tools in Appendix F to evaluate each individual and team performance.

Instructor's Note: *If an individual receives a "fail" in any skill of the scenario, they receive an overall "fail" rating. If the team receives a "fail" rating, each lifeguard on the team receives a "fail" rating.It is possible for the overall team to receive a "pass" rating but one of the lifeguards to receive a "fail."*

TOPIC: COURSE WRAP-UP

Time: 5 minutes

COURSE WRAP-UP

LECTURE:

- Thank all participants for attending the course.
- Congratulate participants on successful completion.
- Explain that they will receive a certificate that indicates CPR/AED for Professional Rescuers – valid 2 years.
- Make arrangements to retest any participants who did not pass the final written exam(s) or scenario(s).

Instructor's Note: *If a participant is unsuccessful in passing the course, have a private discussion with the participant about any course objectives that were not met and discuss additional training opportunities.*

SECTION C | APPENDICES

Appendix A: Sample Letter to Participants

Appendix B: Activity Resources and Multiple-Rescuer Response Scenario Flow Sheets

Appendix C: Guidelines for Conducting Review and Challenge Courses

Appendix D: CPR/AED for Professional Rescuers Video Segments

Appendix E: Common Participant Errors

Appendix F: Participant Progress Logs and Multiple-Rescuer Response Assessment Tools

Appendix G: Science Notes

Appendix H: Written Exam Answer Sheets and Answer Keys

APPENDIX A

SAMPLE LETTER TO PARTICIPANTS

LETTER TO CPR/AED FOR PROFESSIONAL RESCUERS COURSE PARTICIPANTS

Date: _____

Dear Course Participant:

Thank you for enrolling in an American Red Cross CPR/AED for Professional Rescuers course. The date(s), time(s) and location(s) of the course meetings are listed below.

Date(s): _____ Time(s): _____

Location: _____

Address: _____

The purpose of the American Red Cross CPR/AED for Professional Rescuers course is to teach those with a duty to act (professional rescuers and health care providers) the knowledge and skills needed to respond appropriately to breathing and cardiac emergencies until more advanced medical personnel take over. This includes the use of an automated external defibrillator (AED) to care for a victim experiencing cardiac arrest.

To successfully complete the course, you must attend the entire course, participate in all skill sessions and scenarios, demonstrate competency in all required skills and scenarios, and pass the final written exam with a minimum grade of 80 percent.

Some skill sessions require strenuous physical activity. Please wear comfortable clothing and avoid wearing dangling jewelry or jewelry with sharp edges. If you have a medical condition or disability or if you have any questions regarding your ability to participate fully in this course, discuss this with your health care provider and your instructor before you start the course.

Upon successful completion of the course, you will receive a Red Cross CPR/AED for Professional Rescuers certificate.

If you have questions, please contact me directly at ( ) - .

Sincerely,

_____

American Red Cross Instructor

APPENDIX B

ACTIVITY RESOURCES

Blank Activity Worksheet for Participants

Multiple-Rescuer Response Scenario Flow Sheets

Using an AED in Unique Situations—Fact or Fiction

ACTIVITY WORKSHEET 5.1

FACT	**FICTION**	**1. Do not use an AED and/or pads designed for adults on an infant or child younger than 8 years of age or weighing less than 55 pounds.**
FACT	**FICTION**	**2. It is safe to use an AED in rain or snow.**
FACT	**FICTION**	**3. An AED cannot be used on a pregnant person.**
FACT	**FICTION**	**4. If a victim has a body piercing or is wearing jewelry, you should remove the item before using an AED.**
FACT	**FICTION**	**5. Never shock someone who has an implantable cardioverter-defibrillator (ICD) or pacemaker device.**
FACT	**FICTION**	**6. If you see a transdermal medication patch you should use a gloved hand to remove it.**
FACT	**FICTION**	**7. Never shock a person who is suffering from traumatic injuries.**
FACT	**FICTION**	**8. Never shock a victim on a metal surface.**
FACT	**FICTION**	**9. Use alcohol wipes to clean the victim's chest.**
FACT	**FICTION**	**10. Continue CPR while the AED is analyzing.**

MULTIPLE-RESCUER RESPONSE SCENARIO 1 FLOW SHEET		
You are one of two athletic trainers on duty at a college basketball game when a player suddenly collapses. EMS personnel have been called. Additional rescuers are on the way with additional equipment—an AED and a BVM. The victim appears to be unresponsive.		
Description/Instructor Notes	**Actions**	**Instructor Prompt**
Read scenario #1 (above).		
The adult (manikin) is lying on the floor on their back and appears unresponsive.	▪ One responder shouts-taps-shouts to see if person is responsive. ▪ Both responders get gloves on and get resuscitation masks ready.	**"There is no response."**
The first rescuer with gloves on should start the primary assessment.	▪ One responder opens the airway and simultaneously checks for breathing and pulse no longer than 10 seconds. ▪ The responder then communicates that there's no pulse and starts CPR.	**"There is no breathing and no pulse."**
Responders perform two-rescuer CPR.	▪ One responder begins CPR starting with 30 chest compressions. ▪ The other responder is in position with the resuscitation mask ready to give ventilations. ▪ After the 30th compression, the responder gives two quality ventilations. ▪ The two responders continue two-rescuer CPR.	
At the start of five cycles of CPR (approximately 2 minutes), two additional rescuers arrive with the "crash bag," which contains a BVM and an AED. The first rescuer with gloves on attaches the BVM to the resuscitation mask.	▪ The responder doing compressions calls for a change on their fifth cycle of compressions. ▪ At the end of the fifth cycle, the compressor and ventilator change positions and continue CPR. ▪ One responder attaches the BVM to the mask and squeezes the bag during ventilations. ▪ One responder prepares and applies the AED while CPR is in progress. ▪ Once the AED is ready to analyze, the responder calls to clear for the AED to analyze.	After a few compressions, prompt the two additional responders to arrive with additional equipment (BVM and AED).

MULTIPLE-RESCUER RESPONSE SCENARIO 1 FLOW SHEET, CONTINUED		
Description/Instructor Notes	**Actions**	**Instructor Prompt**
The AED analyzes and responders change positions.	▪ All responders pause CPR and clear out. ▪ The responder doing compressions changes positions with another responder. ▪ The "new compressor" hovers hands a few inches above the chest during analysis to prepare for CPR.	**"AED advises to shock."**
Shock is advised.	▪ One responder (AED operator) pushes the shock button.	**"AED prompts 'Continue CPR.'"** (Responders should start CPR without waiting for the prompt.)
Continue CPR for five cycles (approximately 2 minutes).	▪ One responder gives compressions and calls for a change at the beginning of the fifth cycle. ▪ One responder maintains the airway and an adequate seal on the resuscitation mask. ▪ One responder operates the BVM by squeezing the bag for ventilations. ▪ One responder is ready to operate the AED and to change positions as needed.	
The AED analyzes and responders change positions. The position change should not take longer than 5 seconds.	▪ At the end of the fifth cycle, once the AED is ready to analyze, the responder calls to clear for the AED to analyze. ▪ All responders pause CPR and clear. ▪ The responder doing compressions changes positions with another responder. ▪ The "new compressor" hovers hands a few inches above the chest during analysis to prepare for CPR.	**"AED prompts 'No shock advised,' followed by 'Continue CPR.'"** (Responders should start CPR without waiting for the prompt.)
Continue CPR for five cycles (approximately 2 minutes).	▪ One responder gives compressions. ▪ One responder maintains the airway and a good seal on the resuscitation mask. ▪ One responder operates the BVM by squeezing the bag for ventilations. ▪ One responder is ready to operate the AED and to change positions with the compressor as needed.	
EMS has arrived on scene and is ready to take over care of the victim.		**"EMS is on scene and is ready to take over care of the victim."**

MULTIPLE-RESCUER RESPONSE SCENARIO 2 FLOW SHEET		
An adult victim has just been rescued from the water at a hotel pool. The victim appears unresponsive. Two rescuers are on the scene. EMS personnel have been called and additional rescuers are on the way with additional equipment—an AED and a BVM.		
Description/Instructor Notes	**Actions**	**Instructor Prompt**
An adult has just been extricated from the water. The adult is on their back and appears unresponsive.	▪ One responder shouts-taps-shouts to see if infant is responsive. ▪ Both responders get gloves on and get resuscitation masks ready.	**"There is no response."**
The first responder with gloves on does a primary assessment and starts CPR.	▪ One responder opens the airway and quickly checks for breathing and pulse simultaneously for no longer than 10 seconds. ▪ The responder communicates no pulse and no breathing. ▪ The responder then gives two quality ventilations.	**"There is no breathing and no pulse."**
	▪ The other responder starts CPR beginning with 30 chest compressions. ▪ The two responders continue two-rescuer CPR.	
After completing 2 cycles of CPR, 2 additional rescuers arrive on the scene with the "crash bag" with a BVM and an AED. The first additional rescuer with gloves on assembles the BVM and assists with giving ventilations.	▪ CPR continues. ▪ One responder assembles the BVM and assists with giving ventilations. ▪ One responder prepares and applies the AED while CPR is in progress.	
The AED is ready to analyze.	▪ One responder calls for and ensures all are clear for the AED to analyze.	
The AED analyzes and change of positions.	▪ All responders pause CPR and clear. ▪ The responder doing compressions changes positions with another responder. ▪ The "new compressor" hovers hands a few inches above the chest during analysis to prepare for CPR.	
Shock is advised.	▪ One responder (AED operator) pushes the shock button.	**"After the shock, AED prompts 'Continue CPR.'"** (Responders should start CPR without waiting for the prompt.)

MULTIPLE-RESCUER RESPONSE SCENARIO 2 FLOW SHEET, CONTINUED		
Description/Instructor Notes	**Actions**	**Instructor Prompt**
Continue CPR for five cycles (approximately 2 minutes) with a change in position after 2 minutes during the reanalyzing by the AED.	▪ One responder gives compressions. ▪ One responder maintains the airway and an adequate seal on the resuscitation mask. ▪ One responder operates the BVM by squeezing the bag for ventilations. ▪ One responder is ready to operate the AED and to change positions as needed.	AED prompt indicates no shock advised and then to continue CPR (responders should start CPR without waiting for the prompt).
EMS has arrived on scene and is ready to assume care of the victim.		EMS is on scene and is ready to take over care of the victim.

APPENDIX C

GUIDELINES FOR CONDUCTING REVIEW AND CHALLENGE COURSES

Guidelines for Conducting CPR/AED for Professional Rescuers Review Courses

The purpose of a review course is to give individuals the opportunity to review the course content within a formal class setting. The format optimizes a participant's ability to successfully complete the knowledge and skills evaluations. The responsibility for preparing for the final written exam is shared by the instructor and the participant.

The lesson plans in the *CPR/AED for Professional Rescuers Instructor's Handbook* support the following review course outline, and they can be referred to if participants have questions. Each participant should have the opportunity to view video segments and practice skills prior to performing skills for evaluation and completing the final written exam for the course being reviewed. To be eligible to participate in a review course, the participant must possess a current American Red Cross certificate for the course being conducted, or a certification expired by no more than 30 days. Those without a certificate may not participate in the review course option. They can only participate in a full course or a challenge.

Instructor's Note: *Select the primary points for each of the lessons and briefly review them. Participants should have already reviewed the handbook prior to the review course.*

L—Lecture/Guided Discussion | **A**—Activity | **V**—Video | **SP**—Land Skills Practice

Lesson	Title	Method	Skills	Time
1	Professional Rescuers and Standard Precautions	L, V		10 minutes
2	Taking Action	L, V, SP	■ Perfoming a Primary Assessment—Adult	25 minutes
3	Caring for Breathing Emergencies	L, V, SP	■ Giving Ventilations—Adult ■ Giving Ventilations—Child or Infant ■ Giving Ventilations Using a BVM—Two Rescuers ■ Conscious Choking—Adult or Child ■ Conscious Choking—Infant	40 minutes
4	Caring for Cardiac Emergencies	L, V, SP	■ CPR—Adult or Child ■ CPR—Infant ■ Two-Rescuer CPR—Adult or Child ■ Two-Rescuer CPR—Infant	25 minutes
5	Using an Automated External Defibrillator	L, V, SP	■ Using an AED—Adult, Child or Infant	20 minutes
5	Putting It All Together: Multiple-Rescuer Response	SP	■ Scenario 1 ■ Scenario 2	30 minutes
6	Final Written Exam & Final Skill Scenario			Varies
Total Review Course Time				**3 hours**

Guidelines for Conducting CPR/AED for Professional Rescuers Challenges

The purpose of a challenge is to give individuals the opportunity to demonstrate knowledge and skills competency outside a formal class setting. Participants have sole responsibility to prepare for the knowledge and skills evaluations. Preparing for the final written exam is the responsibility of the participant. Anyone is eligible to participate in a challenge.

Individuals who do not possess current American Red Cross Universal Certificates indicating CPR/AED for Professional Rescuers and Health Care Providers may participate in a challenge once. If they do not pass the challenge, they should be referred to the local Red Cross chapter for information on taking a full course. They should not be allowed to attempt a challenge again nor are they eligible to participate in a review course.

Individuals who hold current American Red Cross Universal Certificates indicating CPR/AED for Professional Rescuers and Health Care Providers may challenge as often as they are available and their certificates remain valid.

Lesson	Title	Skills	Time
2	Taking Action	■ Perfoming a Primary Assessment—Adult	Varies
3	Caring for Breathing Emergencies	■ Giving Ventilations—Adult ■ Giving Ventilations—Child or Infant ■ Giving Ventilations Using a BVM—Two Rescuers ■ Conscious Choking—Adult or Child ■ Conscious Choking—Infant	Varies
4	Caring for Cardiac Emergencies	■ CPR—Adult or Child ■ CPR—Infant ■ Two-Rescuer CPR—Adult or Child ■ Two-Rescuer CPR—Infant	Varies
5	Using and Automated External Defibrillator	■ Using an AED—Adult, Child or Infant	Varies
5	Putting It All Together: Multiple-Rescuer Response	■ Scenario 1 ■ Scenario 2	Varies
6	Final Written Exam and Final Skill Scenario		Varies
Total Review Course Time			**Varies**

APPENDIX D

CPR/AED FOR PROFESSIONAL RESCUERS VIDEO SEGMENTS

CPR/AED for Professional Rescuers Video Segments

Lesson 1: Professional Rescuers and Standard Precautions

- Standard Precautions (3:23)

Lesson 2: Taking Action

- Primary Assessment (6:41)

Lesson 3: Caring for Breathing Emergencies

- Giving Ventilations—Adult, Child and Infant (4:03)
- Using a Bag-Valve-Mask Resuscitator—Two Rescuers (1:34)
- Conscious Choking—Adult and Child (2:01)
- Conscious Choking—Infant (1:18)

Lesson 4: Caring for Cardiac Emergencies

- Heart Attack and Cardiac Chain of Survival (3:11)
- CPR—Adult and Child (6:28)
- CPR—Infant (2:15)
- Two Rescuer CPR—Adult and Child (2:42)
- Two Rescuer CPR—Infant (1:44)
- CPR—Obstructed Airway (3:39)

Lesson 5: Using an Automated External Defibrillator

- Using an AED (2:19)
- Using an AED—CPR in Progress (1:17)
- Putting It All Together: Multiple-Rescuer Response (2:06)

APPENDIX E

COMMON PARTICIPANT ERRORS

COMMON PARTICIPANT ERRORS

Lesson	Examples of Common Errors
2	**Performing a Primary Assessment:** ■ Failing to size up the scene ■ Failing to determine responsiveness (infant: shout-tap-shout by tapping the foot) ■ Failing to follow standard precautions ■ Improperly opening the airway ■ Checking an inappropriate pulse site (infant: not checking the brachial pulse site) ■ Not looking at the chest while checking for breathing
3	**Using a Resuscitation Mask:** ■ Improperly opening the airway ■ Not obtaining a seal with the resuscitation mask, or not making the chest rise and fall ■ Not looking at the chest while checking for breathing
3	**Giving Ventilations—Adult and Child:** ■ Not tilting the head ■ Tilting the head too far back ■ Failing to reassess for breathing and pulse ■ Not looking at the chest when assessing for breathing ■ Not noticing if the ventilations are inadequate (don't cause the chest to rise) ■ Providing ventilations at the incorrect ratio ■ Breathing too hard or too soft ■ Not obtaining a seal with the resuscitation mask or using an improperly sized mask for the victim ■ Not counting out loud
3	**Giving Ventilations—Infant:** ■ Not tilting the head ■ Tilting the head past a neutral position ■ Failing to recheck for breathing and a pulse ■ Checking an inappropriate pulse site ■ Giving ventilations that are too hard or at the wrong rate ■ Not properly sealing the resuscitation mask ■ Not looking at the chest when checking for breathing or not using a pediatric mask for the infant victim ■ Not counting out loud
3	**Giving Ventilations Using a Bag-Valve-Mask Resuscitator—Two Rescuers:** ■ Maintaining a seal with the resuscitation mask ■ Not squeezing the bag hard enough or squeezing the bag too hard
3	**Conscious Choking:** ■ Failing to obtain the victim's consent ■ Performing abdominal thrusts before back blows ■ Positioning the hands improperly ■ Not using the thumb side of the fist to give abdominal thrusts

Lesson	Examples of Common Errors
4	**CPR—Adult, Child and Infant:** ■ Compressions that are too shallow or too deep ■ Interrupting compressions for too long or too frequently ■ Incorrect hand position ■ Failure to allow full recoil after each compression or inappropriate rate (speed) of compressions ■ Incorrect rate of compressions and ventilations ■ Inadequate ventilations ■ Not counting out loud ■ Not keeping straight arms/locking elbows
4	**Two-Rescuer CPR—Adult and Child:** ■ Compressions that are too shallow or at an appropriate rate ■ Compressing and ventilating at the same time ■ Failing to call for a position change or using an incorrect cycle of compressions and ventilations
4	**Two-Rescuer CPR—Infant:** ■ Compressions that are too shallow or at an inappropriate rate ■ Compressing and ventilating at the same time ■ Failing to use the encircling thumbs technique ■ Failing to call for a position change or using an incorrect cycle of compressions and ventilations
4	**CPR with Airway Obstruction:** ■ Using abdominal thrusts instead of chest compressions ■ Failing to check the mouth for an object ■ Performing a blind finger sweep ■ Compressing too little or too much ■ Failing to give ventilations or using the wrong finger to clear the object from the mouth ■ Incorrect compression to ventilation ratio ■ Not counting out loud
5	**Using an AED:** ■ Not wiping the victim's chest ■ Using pediatric AED pads on an adult or failing to resume CPR after delivery of a shock or incorrect CPR performance

APPENDIX F

PARTICIPANT PROGRESS LOG

Participant Progress Log

Multiple-Rescuer Response Assessment Tool

Participant Progress Log

NAME OF PARTICIPANT	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Skills										
Removing Disposable Gloves										
Performing a Primary Assessment—Adult and Child										
Recovery Position										
Using a Resuscitation Mask—Head-Tilt/Chin-Lift Technique										
Using a Resuscitation Mask—Jaw-Thrust (with Head Extension) Maneuver										
Using a Resuscitation Mask—Jaw-Thrust (without Head Extension) Maneuver										
Performing a Primary Assessment—Infant										
Giving Ventilations—Adult and Child										
Giving Ventilations—Infant										
Giving Ventilations Using a Bag-Valve-Mask—Two Rescuers										
Conscious Choking—Adult and Child										

NAME OF PARTICIPANT	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Skills, *continued*										
Conscious Choking—Infant										
One-Rescuer CPR—Adult and Child										
One-Rescuer CPR—Infant										
Two-Rescuer CPR—Adult and Child										
Two-Rescuer CPR—Infant										
Using an AED										
CPR with Airway Obstruction – Adult and Child										
CPR with Airway Obstruction – Infant										
Putting It All Together: Multiple-Rescuer Response Scenario 1										
Putting It All Together: Multiple-Rescuer Response Scenario 2										
FINAL SKILL SCENARIO										
Multiple-Rescuer Response Scenario										

MULTIPLE-RESCUER RESPONSE SCENARIO 1—MULTIPLE-RESCUER RESPONSE ASSESSMENT TOOL

To evaluate the multi-rescuer scenarios, indicate a rating of pass or fail for each rescuer participating as well as an overall team response score.

- A "pass" rating indicates that during the skills evaluation, the rescuer successfully completed the skills on which they were evaluated.
- A "fail" rating indicates that during the skills evaluation, a rescuer or team did not successfully complete one or more of the skills on which they were evaluated even after remediation.
- If the rescuer receives a "fail" rating in any skill of any scenario, they receive an overall "fail" rating. If the scenario receives a fail rating, each rescuer on the team receives a fail rating. It is possible for the team to pass even if one of the individual rescuers fails.

SCENARIO 1: AN ADULT BASKETBALL PLAYER HAS COLLAPSED DURING A GAME. EMS PERSONNEL HAVE BEEN CALLED.		Responder Names and Ratings			
		Name	Name	Name	Name
Competencies					
Teamwork and Communication	**Communication:** Accurately and effectively communicates with fellow responders				
	Coordination: Clearly and decisively rotates through roles throughout scenario				
	Feedback: Able to clearly provide guidance to teammates to self-correct as needed				
	Overall – Teamwork and Communication				
Chest Compressions	**Location:** Hands centered on the lower half of the sternum				
	Depth: At least 2 inches				
	Recoil: Allow full chest recoil between compressions				
	Rate: 30 compressions at a rate of 100 to 120 per minute				
	Overall – Chest Compressions				
Ventilations & BVM	**BVM:** Connects appropriate sized BVM and resuscitation mask				
	Length: Each ventilation should be 1 second in duration				
	Visual: Chest should clearly rise				
	Ratio: Two ventilations				
	Overall – Ventilations and BVM				
AED	**Preparation:** Turn on the AED; plug in the connector, if necessary				
	Location: Correct pad placement; place one pad on the victim's upper right chest and the other pad on the left side of the chest				
	Time: Minimizes interruptions during rotation; should be less than 5 seconds				
	Compressor Position: Hovers during AED analysis				
	Overall - AED				
Scenario 1	**Overall Team Response**				

MULTIPLE-RESCUER RESPONSE SCENARIO 2—MULTIPLE-RESCUER RESPONSE ASSESSMENT TOOL

To evaluate the multi-rescuer scenarios, indicate a rating of pass or fail for each rescuer participating as well as an overall team response score.

- A "pass" rating indicates that during the skills evaluation, the rescuer successfully completed the skills on which they were evaluated.
- A "fail" rating indicates that during the skills evaluation, a rescuer or team did not successfully complete one or more of the skills on which they were evaluated even after remediation.
- If the rescuer receives a "fail" rating in any skill of any scenario, they receive an overall "fail" rating. If the scenario receives a fail rating, each rescuer on the team receives a fail rating. It is possible for the team to pass even if one of the individual rescuers fails.

SCENARIO 1: AN ADULT HAS JUST BEEN RESCUED FROM THE WATER AT A HOTEL POOL AND APPEARS UNRESPONSIVE. EMS PERSONNEL HAVE BEEN CALLED.		Responder Names and Ratings			
		Name	Name	Name	Name
Competencies					
Teamwork and Communication	**Communication:** Accurately and effectively communicates with fellow responders				
	Coordination: Clearly and decisively rotates through roles throughout scenario				
	Feedback: Able to clearly provide guidance to teammates to self-correct as needed				
	Overall – Teamwork and Communication				
Chest Compressions	**Location:** Hands centered on the lower half of the sternum				
	Depth: At least 2 inches				
	Recoil: Allow full chest recoil between compressions				
	Rate: 30 compressions at a rate of 100 to 120 per minute				
	Overall – Chest Compressions				
Ventilations & BVM	**Gives Two Ventilations** before beginning CPR (drowning victim)				
	BVM: Connects appropriate sized BVM and resuscitation mask				
	Length: Each ventilation should be 1 second in duration				
	Visual: Chest should clearly rise				
	Ratio: Two ventilations				
	Overall – Ventilations and BVM				
AED	**Preparation:** Turn on the AED; plug in the connector, if necessary				
	Location: Correct pad placement; place one pad on the victim's upper right chest and the other pad on the left side of the chest				
	Time: Minimizes interruptions during rotation; should be less than 5 seconds				
	Compressor Position: Hovers during AED analysis				
	Overall - AED				
Scenario 1	**Overall Team Response**				

APPENDIX G

SCIENCE NOTES

ABOUT THE SCIENCE

LESSON AND TOPIC	SCIENCE NOTES
LESSON 2: PRIMARY ASSESSMENT	■ **Checking for responsiveness:** When checking a person for responsiveness, sometimes a tapping of the shoulder does not provide enough physical stimuli to elicit a response to pain. Therefore, a trained responder could employ a "shout-tap-pinch" approach with a pinch to the muscle between the neck and shoulder in order to provide a stronger physical stimulus to a sensitive area. It is important that "shout-tap-pinch" does not delay patient care by adding extra time to determine a response to verbal or painful stimuli. ■ **Recovery Positions:** Based on the available evidence, it is important to turn a person who is responsive and breathing normally but not fully awake onto their side to lower the risk for choking and aspiration. There is little evidence to suggest an optimal recovery position. However, turning the victim towards the rescuer, rather than away from the rescuer, allows for more control over the movement and facilitates monitoring the victim's airway.
LESSON 3: RECOGNIZING AND CARING FOR BREATHING EMERGENCIES	■ **Respiratory Arrest:** Hyperventilation most commonly occurs when victims are being ventilated in respiratory arrest or when an advanced airway is placed during cardiac arrest. It is critical to avoid hyperventilation of the victim because it leads to increased pressure and a subsequent decrease in cardiac filling and cardiac perfusion pressures by putting pressure on the vena cava (the main chest vein). ■ **Opioid Overdose:** With a growing epidemic of opioid (commonly heroin and oxycodone) overdoses in the United States, local and state departments of health have increased access to the medication naloxone, which can counteract the effects of overdose including respiratory arrest. Naloxone (also referred to by its trade name Narcan™) has few side effects and can be administered intranasally (through the nose). Trained responders should administer the drug when the patient is in respiratory arrest and an opioid overdose is suspected. Professional Rescuers and professional responders should follow local medical protocols and regulations to determine dosing and timing of naloxone administration.
LESSON 3: GIVING VENTILATIONS USING A BVM	**BVM:** Ventilation with a BVM is reserved for when multiple rescuers are available to treat the victim: One to perform chest compressions and two others to manage the airway and provide ventilations. While a BVM may often be used in some situations by a single responder (advanced medical personnel), the evidence supports the use of a BVM with two responders: One to maintain an adequate seal and one to squeeze the bag to deliver the ventilations.
LESSON 3: AIRWAY OBSTRUCTION	**Choking:** Evidence suggests that it may take more than one technique to clear the airway, and that back blows, abdominal thrusts and chest thrusts are all effective.

LESSON AND TOPIC	SCIENCE NOTES
LESSON 4: RECOGNIZING AND CARING FOR A HEART ATTACK	There is strong evidence that suggests that when a person is experiencing signs and symptoms of a heart attack, outcomes are improved when cardiac catheterization is performed within 90 minutes of the onset of signs and symptoms and within 60 minutes of arrival to the hospital, which is why advanced life support provided by advanced medical personnel is critical. When cardiac catheterization is not readily available, the administration of certain medications, including aspirin, within the first few hours of the onset of signs and symptoms has also been shown to be of benefit.
LESSON 4: CPR	■ **Chest Compressions:** Actual depth may be difficult to judge without the use of feedback devices, but it is critical to compress the chest AT LEAST 2 inches for an adult victim. Evidence shows that compression depths greater than 2.4 inches in the average adult lead to a higher incidence of non-life threatening injuries and should be avoided. Compression rates that exceed 120 compressions per minute also affect the quality of compressions. Evidence suggests that higher rates of compressions lead to inadequate compression depths. ■ **High Performance CPR:** Evidence continues to build that the key to successful resuscitations is the delivery of high quality CPR, including uninterrupted chest compressions and ventilations. ■ **CPR Differences–Adult and Child:** The majority of pediatric cardiac arrests are a result of a respiratory cause such as a breathing problem (asthma/anaphylaxis), an obstructed airway, drowning or an injury. As such, ventilations and appropriate oxygenation are important for a successful resuscitation. In these situations, laryngeal spasm may occur, making passive ventilation during chest compressions minimal or non-existent.
LESSON 4: AED	■ For every 1 minute of delayed defibrillation, the rate of survival drops 7 to 10 percent. ■ AEDs allow for compressions post-analysis while the AED is charging. Professional Rescuers and professional responders may perform compressions from the time the shock advised prompt is noted through the time that the prompt to clear occurs, just prior to depressing the shock button. Emphasize the need to follow the manufacturer's recommendations and their local protocols and practices.

APPENDIX H

WRITTEN EXAM ANSWER SHEETS AND ANSWER KEYS

ANSWER SHEET: CPR/AED FOR PROFESSIONAL RESCUERS

Name: _____ Date: _____

Exam (A) (B)

1.	(a)	(b)	(c)	(d)
2.	(a)	(b)	(c)	(d)
3.	(a)	(b)	(c)	(d)
4.	(a)	(b)	(c)	(d)
5.	(a)	(b)	(c)	(d)
6.	(a)	(b)	(c)	(d)
7.	(a)	(b)	(c)	(d)
8.	(a)	(b)	(c)	(d)
9.	(a)	(b)	(c)	(d)
10.	(a)	(b)	(c)	(d)
11.	(a)	(b)	(c)	(d)
12.	(a)	(b)	(c)	(d)
13.	(a)	(b)	(c)	(d)
14.	(a)	(b)	(c)	(d)
15.	(a)	(b)	(c)	(d)
16.	(a)	(b)	(c)	(d)
17.	(a)	(b)	(c)	(d)
18.	(a)	(b)	(c)	(d)
19.	(a)	(b)	(c)	(d)
20.	(a)	(b)	(c)	(d)
21.	(a)	(b)	(c)	(d)
22.	(a)	(b)	(c)	(d)
23.	(a)	(b)	(c)	(d)
24.	(a)	(b)	(c)	(d)
25.	(a)	(b)	(c)	(d)

ANSWER KEY: CPR/AED FOR PROFESSIONAL RESCUERS

Name: _____ Date: _____

Exam A

1.	a	b	c	●		21.	a	b	●	d
2.	a	●	c	d		22.	●	b	c	d
3.	a	●	c	d		23.	●	b	c	d
4.	●	b	c	d		24.	a	b	c	●
5.	●	b	c	d		25.	a	b	●	d
6.	●	b	c	d						
7.	a	●	c	d						
8.	●	b	c	d						
9.	a	b	c	●						
10.	●	b	c	d						
11.	a	b	●	d						
12.	a	b	●	d						
13.	a	b	●	d						
14.	●	b	c	d						
15.	a	b	c	●						
16.	a	●	c	d						
17.	a	●	c	d						
18.	a	●	c	d						
19.	a	b	c	●						
20.	●	b	c	d						

ANSWER KEY: CPR/AED FOR PROFESSIONAL RESCUERS

Name: _____ Date: _____

Exam B

1.	a	b	c	●
2.	a	●	c	d
3.	a	●	c	d
4.	a	b	●	d
5.	a	b	c	●
6.	a	b	c	●
7.	a	●	c	d
8.	●	b	c	d
9.	a	●	c	d
10.	a	●	c	d
11.	a	b	c	●
12.	●	b	c	d
13.	a	b	c	●
14.	a	b	●	d
15.	●	b	c	d
16.	●	b	c	d
17.	a	●	c	d
18.	●	b	c	d
19.	●	b	c	d
20.	a	b	c	●
21.	a	b	●	d
22.	a	●	c	d
23.	a	b	●	d
24.	a	b	●	d
25.	a	b	●	d

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