INSTRUCTOR GUIDE PREVIEW

Pediatric CPR, AED, and First Aid







AMERICAN SAFETY&

Pediatric CPR, AED, and First Aid

Instructor Guide, Version 8.0

Purpose of this Guide

This ASHI *Pediatric CPR, AED, and First Aid Version 8.0 Instructor Guide* is solely intended to give information on the presentation and administration of ASHI Pediatric certified training classes. The information in this book is furnished for that purpose and is subject to change without notice.

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We Make Protecting and Saving Lives Easy®

Instructor Guide



NOTICE: ASHI Training Programs are evidence based and peer reviewed. The treatment recommendations, guidelines, and standards presented in this program conform to the:

- 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations.
- 2015 American Heart Association[®], Inc. (AHA) Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care
- 2015 American Heart Association and American Red Cross Guidelines Update for First Aid
- 2015 standards of the US Department of Health and Human Services, Administration for Children and Families, "Caring for Our Children Basics: Health and Safety Foundations for Early Care and Education".
- 3rd Edition of the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education, "Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs".

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Program Design and Instructional Tools

PART 1:



Program Design

Program Overview

The ASHI Pediatric CPR, AED, and First Aid training program has been specifically designed to meet national standards for pediatric first aid, CPR and AED training and is intended for individuals who desire or are required to be certified in pediatric CPR, AED, and first aid, most notably for those who are child care providers. There are no class prerequisites.

The goal of this training program is to help students develop the knowledge, skills, and confidence to respond in a medical emergency. Founded in basic principles of instructional design and learning theory, ASHI promotes a "toolbox" approach to learning. This approach gives Instructors flexibility in both presentation strategies and materials in order to reach students with widely varying abilities in the countless instructional settings that exist in the real world. ASHI Pediatric is designed to include a significant amount of hands-on skill practice.

Program Structure

ASHI Pediatric contains both core and supplemental training content.

Core Training Content

The core training content is the minimum knowledge and skill content that is required for certification in ASHI Pediatric.

Supplemental Content

In addition to the core training content required for certification, ASHI Pediatric contains supplemental knowledge and skill content that may be added by the instructor as desired or required.

Adding supplemental training content is sometimes necessary to customize ASHI Pediatric to the unique conditions or potential hazards of a specific workplace or worksite. In addition, compliance with state health and safety regulations may mandate that certain topics are added to the program.

Supplemental training content is clearly identified and appropriately located throughout this Instructor Guide.

Sidebar Content

Additional supporting content, including information on safety and prevention can be found in sidebars throughout the student book.

Some states require additional child safety and prevention information for child care workers. Know the requirements for the states you are teaching in.

Check Otis to see if there is a state-specific supplement for your state.

Third-Party Training Content

Additional training materials that are not produced by HSI may also be used to enhance ASHI Pediatric at the discretion of the training center director. These additional materials may not be used in lieu of ASHI Pediatric materials and may not be used to shorten or otherwise alter the core training content required for certification.

Important:

REGULATORY AGENCIES AND OTHER APPROVERS MAY REQUIRE SPECIFIC HOURS OF INSTRUCTION OR OTHER PRACTICES. INSTRUCTORS MUST BE FAMILIAR WITH AND COMPLY WITH ALL APPLICABLE LOCAL, STATE, PROVINCIAL, FEDERAL LAWS AND ADMINISTRATIVE RULES AS THEY PERTAIN TO THE APPROVAL, DELIVERY, AND ADMINISTRATION OF THIS TRAINING. HSI MAINTAINS A DATABASE OF ALL REGULATORY APPROVALS IN OTIS.

Class Types

There are 3 different class types for ASHI Pediatric: Initial, Renewal, and Challenge.

Initial Class

A classroom or blended learning training class for individuals who have never been certified or whose certification has expired.

Renewal Class

A classroom training class for individuals who wish to refresh skill competency and maintain certification.

Challenge

A classroom evaluation for individuals who wish to earn certification by demonstrating knowledge and skill competency without taking an initial or renewal class.

Class Methods

There are 2 main methods to teaching and certifying students in ASHI Pediatric CPR, AED, and First Aid: instructor-led classroom training and blended learning.

Classroom Training

This is an instructor-led, in-person, classroom-based approach where the core knowledge content is provided using scenario-based video segments or a slide presentation, followed by demonstration of skills and the opportunity for instructor-facilitated student practice. There is a maximum student-to-instructor ratio of 10:1. The recommended ratio is 6:1.

Blended Learning

This is a mixed-mode approach using both online and in-person learning; core knowledge content is provided in video segments and interactive student exercises online, followed by in-person skills practice.

Training Content

Initial Classroom Class

The content of the initial class is divided into sections. Sections are further divided into lessons. Each lesson provides an approximate length, skill and/or knowledge objectives (What Students Should Learn), provides an encouraging reason for learning (Why This Topic Matters), lists required equipment, and describes the necessary instructor activities. The outline and time frame for the Initial Instructor-Led Class are provided in Part 3.

ASHI promotes a "toolbox" approach to learning. This means that various presentation methods and tools may be used by the instructor to meet the knowledge and skill objectives of the course, including skill guides, video, slides, scenario sheets, and performance evaluations. The focus is on gaining the skills and building the confidence to handle an emergency situation. Skills are best learned and retained by repeat practice. Instructors can make the most of class time by limiting lectures to essential knowledge, and focusing on hands-on skill practice.

Four-step Instructional Approach

In general, ASHI follows a basic four-step instructional approach (some lessons may include fewer or additional steps).

Step 1: Present the Knowledge Content

The program video and the program slide presentation are the primary tools provided to deliver knowledge content for the class.

Featuring scenario-based video segments, the program video provides you with a simple, engaging, and consistent approach to deliver content.

The program slide presentation allows more experienced Instructors to take an active role in presenting content. Slides focus on the key points of information and allow Instructors to highlight content using other delivery methods. Slide notes provide more detail on content. Instructors can use stated video-times as a guide for pacing lesson times when using the presentation.

Key points are also included for each lesson in this Instructor Guide and can be used to emphasize key content throughout the class.

Step 2: Demonstrate Skills

When demonstrating skills, a high-quality performance is essential because students will tend to copy it.

When giving a demonstration, consider using the WHOLE-PART-WHOLE method:

WHOLE: Demonstrate the entire skill, beginning to end, briefly naming each action or step.

PART: Demonstrate the skill again, step-by-step, integrating information and facts while pointing out common errors in technique. Present only the knowledge necessary to for the student to adequately perform the skill. To help, have students look at the appropriate Skill Guide as you demonstrate.

WHOLE: Demonstrate the entire skill again — in real-time — without comment. Perform it without remarks, interruption, or explanation. This helps students get a feel for the tempo of the skill and the opportunity to observe the sequence of actions before they practice.

Step 3: Allow Adequate Time for Students to Practice the Skills

Break students into small groups with the required equipment for the practice. Have one student act as a coach by reading the skill steps from the Skill Guide while another student performs the skill on a manikin or on another student who is playing the role of the ill or injured person. Have students rotate through the roles until all have played each role.

An Instructor should circulate through the classroom, answering questions, correcting errors in technique, and providing constructive feedback and positive reinforcement. Avoid anxiety-producing, perfection-oriented skill checks. A stimulating, but non-threatening, environment is best for learning.

More experienced or returning students may enjoy a scenario- or problem-based learning approach. Scenario sheets are available to support this approach.

Optional Video Guided Practice

Instructors have the option to use video guided practices for chest compressions, rescue breaths, and CPR. Video guided practices allow students to practice skills in tandem with a video demonstration.

Video segments for these guided practices are provided. Each student must have a manikin when conducting a video guided practice. Instructor notes are located in this Instructor Guide where video guided practices are available.

Optional LOOP Learning System Integration

Instructors have the option to integrate the use of the LOOP Learning System during hands-on practices for adult chest compression and CPR. The LOOP can engage students in learning and help students to improve performance as they practice skills.

The LOOP Learning System (sold separately) is an adult CPR practice aid that can provide real-time feedback to a student on compression rate and depth, and overall timing of performance. Real-time performance feedback allows for the immediate correction and reinforcement of skills. Feedback devices are recommended for the development of high-quality CPR skills.

Step 4: Wrap It Up

Ask for and answer questions as briefly and concisely as you can. If available, finish with a short problem-solving scenario to help students recall key information.

The initial class proceeds lesson by lesson until its conclusion. ASHI Pediatric certification cards are issued to those students who have earned them.

Certification Requirements

Instructors must be current and properly authorized as an ASHI Pediatric instructor to issue Pediatric certification cards.

The certification requirement for an initial class requires students to demonstrate skill competency using skill guides, Scenario Sheets, or performance evaluations. A Written Exam is not required for certification unless required by a regulatory agency or if a student is seeking certification using the Challenge option.

Important:

WHEN NOT REQUIRED, THE WRITTEN EXAM MAY BE USED AS A PRE-, POST-, OR IN-CLASS ACTIVE LEARNING TOOL. THE INDIVIDUAL'S SCORE ON AN OPTIONAL EXAM MAY NOT BE USED TO WITHHOLD A PROPERLY EARNED CERTIFICATION CARD. WHEN A WRITTEN EXAM IS NOT USED OR REQUIRED, INSTRUCTORS CAN MEASURE COGNITIVE UNDERSTANDING BY INFORMAL OBSERVATION AND QUESTIONING USING THE KNOWLEDGE CHECK FEATURE.

Initial Blended Class

About Blended Learning

Blended learning combines the convenience of online learning with face-to-face, in-class skill practice and evaluation by an authorized instructor. The platform used for the online portion of the Initial Blended Class is Otis. This web-based learning system allows for a variety of sensory interactions to provide users with a low-stress, easy-to-use, and convenient way to learn the required information. The management of blended training, including scheduling online and face-to-face sessions, is also done through Otis. Students are notified by email of enrollment in the online class. Student progress can be monitored online. For information on system requirements and how to register students for the online portion of the class contact your training center director or email customerservice@hsi.com.

Important:

SOME STATE AND LOCAL REGULATIONS DO NOT ALLOW THE USE OF BLENDED LEARNING FOR CHILD CARE/DAYCARE WORKERS. KNOW THE REGULATIONS REGARDING THIS FOR THE LOCATION OF YOUR TRAINING CLASSES.

Online Portion

The online portion of a blended training class covers the essential cognitive content for the class using program video segments and interactive exercises. When a student successfully completes the online portion of the class, a Recognition of Completion certificate will be made available to the student for printing and the completion will be recorded within Otis. Successful completion of the online portion is required to attend the face-to-face portion of the class for skills practice and evaluation with an instructor.

Important:

COMPLETION OF THE ONLINE PORTION ALONE DOES NOT RESULT IN CERTIFICATION. THE ONLINE PORTION IS USEFUL FOR KNOWLEDGE ACQUISITION, BUT IT DOES NOT PROVIDE ANY BENEFIT IN THE PERFORMANCE OF SKILLS.¹ ONLINE TRAINING ALONE DOES NOT MEET NATIONAL HEALTH AND SAFETY PERFORMANCE STANDARDS FOR EARLY CARE AND EDUCATION PROGRAMS OR THE FIRST AID AND CPR REQUIREMENTS OF THE US DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) STANDARDS.^{2,3} ONLINE TRAINING MUST BE SUPPLEMENTED WITH HANDS-ON PRACTICE.

Face-to-Face Portion

The face-to-face portion of a blended class focuses on the development of competent skills through hands-on practice. Required activities of the face-to-face portion of the Initial Blended Class include performing instructor demonstrations and student practices, completed just as in an Initial Instructor-Led Classroom Class.

Instructor Demonstration

The instructor performs a demonstration of the skill, using the WHOLE-PART-WHOLE method.

Student Practice

Following the instructor demonstration, allow adequate time for students to practice the skill.

Optional video guided practices and LOOP Learning System integrations can be considered.

Important:

THE FACE-TO-FACE PORTION OF THE BLENDED CLASS IS NOT INTENDED TO BE A SIMPLE SKILLS CHECK OFF. THIS PORTION OF THE CLASS INCLUDES BOTH PRACTICE AND EVALUATION. FOR STUDENTS WHO ARE ALREADY COMPETENT IN THEIR KNOWLEDGE AND SKILLS, CONSIDER USING THE CHALLENGE OPTION.

The outline and time frame for the Initial Blended Class are provided in Part 4. The class proceeds lesson by lesson until its conclusion. ASHI Pediatric certification cards are issued to those students who have earned them.

Certification Requirements

The certification requirements for the Initial Blended Class are the same as for an Initial Instructor-Led Classroom Class.

Renewal Class

The Renewal Class is designed for individuals who are currently certified and want (or are required) to refresh skill competency and maintain certification. Individuals without current certification may not participate in a Renewal Class.

CPR and first aid skills, and the confidence to use them, deteriorate rapidly following initial training and certification, in as few as 30 to 90 days.^{4,5} Consider doing renewal training more frequently to refresh and maintain skills.

Lessons in the renewal class focus on the development of competent skills through hands-on practice. Required activities of a Renewal Class include performing instructor demonstrations and student practices, completed just as in the Initial Instructor-Led Classroom Class.

Optional video guided practices and the integration of the LOOP Learning System can be considered.

The outline and time frame for the Renewal Class are provided in Part 5. The Renewal Class proceeds lesson by lesson until its conclusion. ASHI Pediatric certification cards are issued to those students who have earned them.

Certification Requirements

The Renewal Class focuses on skill competency. If new certification cards will be issued, use of the Written Exam before, during, or after skills practice is necessary to refresh students on core knowledge content not covered in the skill sessions. The instructor should use the exam as an active learning tool. That is, the exam may be given open book, or the instructor may read the questions out loud to the class and engage all students in choosing the correct answer and discussing the reasoning behind it. Scoring individual exams is not necessary unless it is required by a regulatory agency. Using an alternative method to the Written Exam that adequately covers all core knowledge content is acceptable.

Challenge

A Challenge is an instructor-led evaluation for individuals who wish to earn ASHI Pediatric certification by demonstrating knowledge and skill competency without taking an initial or renewal class. Anyone is eligible to participate in a Challenge regardless of certification status.

There are no lessons or teaching in a Challenge. Participants are solely responsible and must be prepared to take a Written Exam and skill test. The required instructor activities are limited to administering the Written Exam and carrying out skill tests using the performance evaluation.

The outline and time frame for the Challenge are provided in Part 6. ASHI Pediatric certification cards are issued to those individuals who have earned them.

Instructional Tools

This ASHI Pediatric Instructor Guide, (integrated with pages from the Pediatric Student Book), video segments, slides, scenario sheets, performance evaluations, and online training provides the materials necessary for a properly qualified and authorized instructor to conduct the Initial, Blended, Renewal, and Challenge classes. Lesson plans are located in Parts 3 through 6.

Instructor/Training Center Portal in Otis

The instructor/training center portal in Otis provides access to the most current support documents, including performance evaluations, exams, supplemental skill sheets, errata sheets, and more. Please see Otis for the most up-to-date information. Login to Otis at otis.hsi.com/login. If you need assistance logging into Otis, call 877-440-6049 to speak with technical support.

Student Book

The ASHI Pediatric Student Book is an up-to-date resource that covers the core knowledge and skill content required for certification. Each participant should have a current print or digital Student Book readily available during and after the class.

Program Video

The ASHI Pediatric program video is a scenario-based visual learning tool. Video segments cover all core and supplemental training content. The video is available on digital video disc (DVD), online as a component of the blended class, and as an Otis-powered desktop or mobile application.

Program Slide Presentation

A PowerPoint slide presentation is provided as an alternative visual tool to the program video. Designed for more experienced Instructors, the presentation highlights the key points of the program content to help guide Instructors in class. The program slide presentation file is available in Otis.

Skill Guides

Skill guides combine words and photographs of the correct steps of a skill in the proper sequence. They are visual, easy-to-use, instructional tools to be used by the instructor as a teaching aid and by students during skill practice. Skill guides are included in the Student Book and integrated into this Instructor Guide.

Scenario Sheets

Scenario Sheets are student practice tools used to help students learn how to apply skills and make reasoned judgments and decisions in a realistic, simulated setting. An alternative to skill guides, Scenario Sheets are more suited to experienced students. Scenario Sheets and instructions for their use are available in Otis.

Performance Evaluation Sheets

Performance evaluation is a scenario-based assessment process that provides sound, fair, consistent, uniform, objective, and reliable documentation of a student's competency according to the skill criteria. Performance evaluation sheets and instructions for their use are available in Otis and are included in the Otis-powered desktop or mobile application.

Written Exam

Unless required by a regulatory agency, it is not required for students to take and pass the Written Exam. However, the Written Exam documents are provided as an instructional tool and can be used to check student learning and effective retention of knowledge objectives.

Two Written Exam versions, an answer sheet, and answer keys are included in the program documents in Otis.

LOOP Learning System

The LOOP Learning System (sold separately) is an adult CPR practice aid that can increase the level of engagement of students during training.

The LOOP Learning System uses a LOOP CPR Controller, placed on a manikin chest to measure compression depth and rate, and overall timing for CPR.

The LOOP system also comes with two software programs: LOOP Rhythm and LOOP Metrics. LOOP Rhythm enhances training by using music, video, competitive scoring, and other gaming concepts to create a compelling, fast-paced, and fun experience.

LOOP Metrics is designed for use in the hands-on practice sessions of a training class. It provides real-time performance feedback that allows for the immediate correction and improvement of skills. Skill performance is also recorded so Instructors can review the results with students at the end of a practice session. The optional use of the LOOP Learning System has been integrated into the compressions and CPR practices in this training program.

The 2015 American Heart Association Guidelines Update for CPR and ECC recommend the use of a corrective CPR feedback device during adult CPR training to improve skill performance.

If LOOP or a similar CPR feedback device is not available, it is recommended to use a metronome for all age groups to at least provide auditory guidance on compression rate. Many free or low-cost metronome apps are available for use on mobile tablets or phones.

The ASHI Pediatric CPR, AED, and First Aid slide presentation was created using PowerPoint[®] presentation graphics program. PowerPoint[®] is a registered trademark of Microsoft Corporation in the United States and/or other countries.



Class Requirements

Important:

COMPLETE STANDARDS AND GUIDELINES FOR QUALITY ASSURANCE INCLUDING PROGRAM STANDARDS, CERTIFICATION STANDARDS, AND THE TERMS AND CONDITIONS FOR INSTRUCTOR AND INSTRUCTOR TRAINER AUTHORIZATION ARE LOCATED IN THE MOST RECENT VERSION OF THE HSI TRAINING CENTER ADMINISTRATION MANUAL (TCAM) AVAILABLE AT http://www.hsi.com/qualityassurance.

ALL INSTRUCTORS HAVE AGREED TO COMPLY WITH THESE STANDARDS BY SUBMITTING A SIGNED APPLICATION FOR INSTRUCTOR AUTHORIZATION.

Before Class

A few days before the class, confirm the date, location, and number of students. Ensure you have the following materials (see Equipment List for detailed information):

- Pediatric Instructor Guide
- Pediatric Student Books
- CPR manikins and AED trainers
- CPR masks or shields
- · Gloves, dressings, and bandages
- Audio visual equipment and cables
- Class paperwork

Review this Instructor Guide, paying particular attention to the outline and time frame for the class you are teaching (Initial, Blended, Renewal, or Challenge). Review the video or slides and key points for each lesson, including any supplemental content to be added. Review all of the included Instructor Notes to see if you need to adjust your approach to training. Familiarize yourself with the student book.

Learning Environment

The ideal learning environment is comfortable, efficient, and distraction-free with sufficient space, seating, resources, and equipment. Instructors should take reasonable efforts to ensure a physically safe, comfortable and appropriate learning environment. The room should be well lit, well ventilated, and comfortable in temperature. Avoid cramped classroom setups where possible.

Classroom Space

Pediatric has been developed for a maximum class size of 10 students to 1 instructor; the recommended class size is 6 students to 1 instructor. Personal supervision is necessary to ensure effective facilitation, assistance, guidance, and supervision. Additional equipment and the assistance of other authorized instructors are recommended for all skill sessions where possible.

The room should be large enough to accommodate chairs, tables, and skill practice space for up to 10 students. Pediatric requires hands-on practice and evaluation of skills. Ensure that adequate and appropriate space for these activities is provided. Allow 15 to 17 square feet per student whenever possible.⁶ Avoid lecture hall type of arrangements. A sample classroom layout is available in Otis.

Classroom Safety

Make sure there are no obvious hazards in the classroom, such as extension cords that can be tripped over. Discourage students from smoking, eating, or engaging in disruptive or inappropriate behavior. Have an emergency response plan in case of serious injury or illness, including evacuation routes from the classroom. Be aware of and share with students the location of the nearest bathrooms, exit, phone, first aid kit, AED, fire alarm pull station, and fire extinguisher.

NOTICE:

WARN STUDENTS TO AVOID AWKWARD OR EXTREME POSTURES OF THE BODY. IMPROPER LIFTING AND MOVING IS A LEADING CAUSE OF BACK INJURY. ALL STUDENTS MUST PAY ATTENTION TO PROPER LIFTING AND MOVING TECHNIQUES DURING PRACTICE.

Warn students that classroom activities involving lifting and moving that may aggravate previous back injuries, ,and they should not practice moving simulated victims if they have a history of back problems.

Student Illness and Other Emergencies

Advise students to not attend class if they have an illness such as influenza or a fever. Training centers should provide reasonable accommodation to students to make up class time or skill sessions. If a student has a medical emergency, instructors should provide the appropriate first aid care and activation of EMS.

Equipment and Materials List

Some equipment and materials are required for teaching, while other materials are optional (like the Written Exam). Some materials and equipment are recommended but not required. Use the lists below to prepare the right materials and equipment for the training you are delivering. The maximum student-to-manikin/AED trainer ratio for CPR skills practice is 3:1. When using a video guided practice for CPR skills, the required student-to-manikin ratio is 1:1.

Core Content

Required

- Television with DVD player, or computer with speakers, large monitor, or projection screen
- CPR training manikins for the age groups (adult, child, infant) being covered, 1 for each group of 2 to 3 students
- AED training devices with pediatric capability and pads, 1 for each manikin
- Manikin decontamination supplies (ex: manikin cleaning wipes, 70% ethyl alcohol)
- CPR overlay shields, 1 for each student, or adult and pediatric CPR masks, 1 for each group of 2 to 3 students, with 1 separate one-way valve for each student
- Nonlatex disposable gloves, 1 pair for each student
- 4x4 gauze dressings, at least 2 for each student
- Conforming roller bandages, 1 for each student
- Commercial tourniquet, 1 for demonstration
- Pediatric Instructor Guide (print or digital), 1 for each instructor
- Pediatric Student Books, 1 for each student (print or digital)
- Pediatric program video, DVD or Otis-powered desktop, mobile application or Pediatric slide presentation, 1 for each class
- Pediatric certification cards, 1 for each student who fulfills the requirements (print or digital)
- Class roster, 1 for each class (print or digital)

May Be Required (Regulatory Agency/Challenge)

- Written exams A and B, 1 version for each student (print)
- Written exams answer sheets, 1 for each student (print)
- Written exams answer keys, A and B, 1 for each instructor/assistant (print)
- Performance evaluations for the age groups being covered, 1 set for each student (print or digital)
 - Caring for Cardiac Arrest
 - Caring for Choking Infant
 - Control of Bleeding

Recommended

- Scenario Sheets for the age groups being covered, 1 set for each group of 2 to 3 students (print or digital)
 - Caring for Cardiac Arrest
 - Caring for Choking Infant
 - Control of Bleeding
- Metronome/audio prompting device
- Pens or pencils, 1 for each student when Written Exam is administered
- Blankets or mats
- Name tags or tent cards, 1 for each student
- Spare projector bulb (as needed)
- Extension cord (as needed)
- Whiteboard with dry erase pens and eraser, if available
- Large black markers for student name tags or tent cards
- Large envelope for class paperwork, including Written Exam answer sheets when required

Supplemental Content

If you choose to teach supplemental topics in addition to core content, additional materials may be required. Details of what equipment is required for each topic are described at the top of each topic page.

Dependent on topic

- LOOP Learning System
- EpiPen auto-injector training device, 1 for each group of 2 to 3 students
- Epinephrine auto-injector training device, 1 for each group of 2 to 3 students

Conducting a Class

- 1. Arrive early. Give yourself plenty of time to get organized.
- 2. Circulate a sign-in sheet or the Class Roster. Be sure all students sign in.

During Class

- 1. Start on time. Briefly cover class expectations: class goal, certification requirements, classroom safety, facilities, mobile phone use, and breaks.
- Stay on track. Keep lessons within their time limits. End discussions when they are not productive or lead off class.
- 3. At the beginning of each lesson, briefly communicate the knowledge and skill objectives, and explain why this topic matters.
- 4. Show the video or slide presentation (where required) and emphasize the key points as needed. Ask for and briefly answer any questions.
- 5. Facilitate student practices. Answer questions and offer constructive guidance and positive feedback as appropriate.
- 6. Upon class completion, issue Pediatric certification cards to those individuals who earned them.
- 7. Offer and collect students' Rate Your Program evaluations.

After Class

Complete and sign the Class Roster.

Administration

Skill Evaluation

The instructor must evaluate each student for skill competency — the ability of the individual to do the skill adequately. Each student must be able to demonstrate the skills in the proper sequence according to the skill criteria as it appears in a skill guide, Scenario Sheet, performance evaluation sheet, or program standard.

Skill Remediation

As time permits, the remediation, or the correction of inadequate skill performance, should be offered to students who are experiencing skill difficulties.

Generally, address student skill problems throughout the class using the gentle correction of skills and positive coaching. If possible, assist students privately during breaks, lunch, or at the end of the class.

Be polite, considerate, encouraging and professional when remediating skills.

If the student is unable or unwilling to perform skills, you can issue the student a Recognition of Participation document, especially in cases where knowledge or experience is a greater goal than certification for the student.

If a student needs certification and requires more remediation than can be provided during a class, recommend the student attend another training class.

Written Exam

A Written Exam is not required for certification unless required by a regulatory agency or if a student is seeking certification using the Challenge option.

Evaluation of the core knowledge objectives in Pediatric is normally accomplished by informal observation and questioning throughout a training class.

When a Written Exam is required, adequate time must be added to the class to complete the exam. Two versions of the Written Exam, along with instructions for their use are included online in Otis. An exam answer sheet is also available to help minimize the amount of paper used. Exam answer keys are provided for both exam versions to aid in exam correction.

Each student must obtain a passing score of 72% or better. If a student does not pass the first Written Exam, he or she must take the alternative version. If a student does not pass the alternative version, he or she must retake the class.

ASHI is implementing open-book exams with the G2015 training programs. Open-book exams emphasize critical thinking and problem solving over recall of memorized facts and decrease test anxiety. Open-book exams mean that students may use reference materials to take exams. Reference materials include any notes taken during the class as well as the print or digital ASHI Student Book.

Although students may use reference materials while taking the exam, they should not be allowed to openly discuss the exam with other students or the instructor. Their answers should be their own. Instructors may read aloud the exam to the students as necessary without providing the answers.

Consider the following tips to prevent cheating if students take the Written Exam.

- 1. Before distributing the exams, remind students those who are caught cheating will not receive certification cards.
- 2. Request a photo ID if you suspect someone may be taking the test in place of a student.
- 3. Inform students there is to be no talking during the exam. If a student has a question during the exam, ask that student to raise a hand and you will go to him or her.
- 4. For extra precaution, use both versions of the exam, alternating them between students to make copying from another student more difficult.
- 5. Walk around the room throughout the exam. Do not do other work while monitoring the exam.

Criteria for Certification

When the instructor determines a student has demonstrated adequate knowledge and skill competency, the instructor may issue a certification card (print or digital).

Certification means verification that on the indicated class completion date the student demonstrated achievement of the required knowledge and hands-on skill objectives to the satisfaction of a currently authorized ASHI instructor or instructor trainer.

Certification does not guarantee future performance, or imply licensure or credentialing. Certification is documented by the legitimate issuance of a correctly completed ASHI certification card.

Important:

SEE THE MOST RECENT VERSION OF THE HSI TRAINING CENTER ADMINISTRATION MANUAL (TCAM) FOR COMPLETE PROGRAM STANDARDS REGARDING CERTIFICATION. THE TCAM IS AVAILABLE AT http://www.hsi.com/qualityassurance.

Class Documentation

All of the class documentation forms used in the ASHI Pediatric training program are available for download in the documents section of Otis. A complete list of those forms can be found in the Appendix of this Instructor Guide.

There may be periodic revisions or updates to the class documentation forms. Refer to Otis for the most current version.

Class Roster

The Class Roster is the principal record of training. The roster verifies student completion of the class. It also documents the results of the Written Exam and remediation, if used during training. A complete, accurate, and legible Class Roster signed by the authorized instructor or submitted online through Otis is required for every training class. The Class Roster must be promptly delivered to the training center responsible for the class or submitted online through Otis. The training center is required to keep clear, legible and orderly class records (paper or digital) for no less than 3 years.

Performance Evaluation Sheet

Performance evaluation sheets can be used as secondary documentation of student skill competency. The use of performance evaluation sheets may also be required by regulation or organizational policy.

For secondary documentation, the performance evaluation sheets should be filled out while the student is performing the skills. The instructor should sign and date each performance evaluation sheet. A student's performance evaluation sheets signed by the instructor should be considered important potential evidence demonstrating instructor evaluation of each student's skill competency.

Following class, any signed performance evaluation sheets should be included with the Class Roster and promptly delivered to the training center responsible for the class.

Rate Your Program Course Evaluation

Encouraging class participants to provide feedback and then using that feedback to improve instruction is an essential aspect of any quality educational effort. HSI requires that students be given the opportunity to evaluate any ASHI class using the Rate Your Program course evaluation form.

Completed course evaluations should be promptly delivered to the training center responsible for the class.

Additionally, class participants may provide Rate Your Program feedback directly to HSI http://www.hsi. com/rateyourprogram. All information obtained by HSI through this process is reviewed and shared with the training center, instructor, or instructor trainer as appropriate.

Cardiac Arrest

Class Method: Initial *Class Type:* Classroom *Length:* 18 minutes

Why This Topic Matters

Cardiac arrest is a life-threatening condition in which the heart stops moving blood. Without immediate recognition and help from a bystander, survival is unlikely.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

- The main components and function of the respiratory and circulatory systems
- · How to suspect and provide first aid treatment for secondary cardiac arrest
- The links in the pediatric chain of survival
- · How to suspect and provide first aid treatment for sudden cardiac arrest

Instructor Activities

Present Knowledge Content — Show Video (approx. duration 12:00) or Slides

- · Emphasize key points as needed.
 - ✓ Oxygen and the Human Body
 - The body does not store oxygen so it must continuously supply it through the combined actions of the respiratory and circulatory systems.
 - When oxygen is cut off, cell damage, and death, can occur within a matter of minutes.
 - Cardiac Arrest
 - Cardiac arrest is the loss of the heart's ability to pump blood to the body.
 - Secondary Cardiac Arrest
 - Cardiac arrest as a secondary result of the loss of breathing, such as in suffocation or drowning. This is the most likely type of cardiac arrest in children.
 - Cardiopulmonary Resuscitation (CPR)
 - A combination of chest compressions and rescue breaths that can restore limited blood flow and oxygen to the brain.
 - If a child's heart is too weak to create obvious signs of life, immediate CPR, with an emphasis on effective rescue breaths, may be the only chance to restore them.
 - CPR skills vary a bit, depending on age. Ages are defined as follows.
 - a. An infant is younger than 1 year of age.
 - b. A child is 1 year of age until the onset of puberty. Puberty can be estimated by breast development in females and the presence of armpit hair in males.
 - c. An adult is from the onset of puberty and older.
 - Pediatric Chain of Survival
 - The pediatric chain of survival describes the best approach for treating secondary cardiac arrest.
 - ✓ Opioid Overdose
 - The abuse of opioids is a serious health problem. Opioids can depress and stop breathing, resulting in secondary cardiac arrest.
 - Increasing prescriptions for opioid pain relievers has made them more commonly available, thus increasing the chance of an accidental overdose of a child.
 - Naloxone is a medication that can quickly reverse opioid effects and is being made more available to those likely to be in contact with someone who may have an opioid overdose.

- Sudden Cardiac Arrest
 - Can happen with little or no warning. A person affected abruptly becomes unresponsive and collapses. Abnormal
 gasping can occur. Breathing stops.
 - An unexpected disruption to the heart's electrical system in which normally organized electrical pulses become disorganized and a chaotic quivering condition known as ventricular fibrillation occurs. Blood flow, along with the oxygen it carries, stops. This is the most likely type of cardiac arrest in adults.
 - CPR is the immediate treatment for sudden cardiac arrest. However, CPR alone is not enough.
- ✓ Early Defibrillation
 - Defibrillation is the most effective way to end ventricular fibrillation and restore a normal heartbeat. The quicker defibrillation can occur, the greater the chance for survival. An AED allows a bystander to defibrillate much sooner than EMS.
- ✓ Adult Chain of Survival
 - The adult chain of survival is often used to describe the best approach for treating sudden cardiac arrest.
- ✓ Sudden Cardiac Arrest in Children
 - Although rare, children can experience sudden cardiac arrest with ventricular fibrillation due to existing heart problems or an accident such as a blow to the chest or an electrocution.
- · Ask for and briefly answer any questions.
- Refer students to pages 13–16 of the Student Book.
- Use the Knowledge Check activity to evaluate and increase retention.

Close

• Ask for and answer any questions before moving on to the next lesson.



Knowledge Check

The adult chain of survival is often used to describe the best approach for treating sudden cardiac arrest. The first three links of the chain are typically the responsibility of a trained first aid provider. Describe those links.

- 1. Early recognition of cardiac arrest and activation of EMS
- 2. Immediate CPR with high-quality chest compressions
- 3. Rapid defibrillation of the heart

NEXT CORE LESSON: Chest Compressions

Cardiac Arrest



Because the human body cannot store oxygen, it must continually supply tissues and cells with oxygen through the combined actions of the respiratory and circulatory systems.

Oxygen and the Human Body

The respiratory system includes the lungs and the airway, the passage from the mouth and nose to the lungs. Expansion of the chest during breathing causes suction, which pulls outside air, containing oxygen, through the airway and into the lungs. Relaxation of the chest increases the pressure within and forces used air to be exhaled from the lungs.

The circulatory system includes the heart and a body-wide network of blood vessels. Electrical impulses stimulate contractions of the heart to create pressure that pushes blood throughout the body. Blood vessels in the lungs absorb oxygen from inhaled air. The oxygen-rich blood goes to the heart, then out to the rest of the body.

Large vessels called arteries carry oxygenated blood away from the heart. Arteries branch down into very small vessels that allow oxygen to be absorbed directly into body cells. Veins return oxygen-poor blood back to the heart and lungs where the cycle repeats. The brain is especially sensitive to a lack of oxygen. When oxygen is cut off, cell damage, and death, can occur within a matter of minutes.



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Secondary Cardiac Arrest

Cardiac arrest is the loss of the heart's ability to pump blood to the body. Cardiac arrest in children is usually the end result of the loss of breathing. This is known as secondary cardiac arrest.

Causes of secondary cardiac arrest include the following:

- Sudden Infant Death Syndrome (SIDS)
- Suffocation
- Entrapment
- Drowning
- Choking
- Drug overdoses



With no incoming oxygen, the heart progressively becomes weaker until signs of life become difficult or impossible to assess.

SIDS

Sudden Infant Death Syndrome (SIDS) is the sudden and unexplained death of a baby under one year of age. Because many SIDS babies are found in their cribs, it is often referred to as "crib death."

The exact cause of SIDS is not yet known, but it is the leading cause of death in babies after one month of age. Most deaths occur in babies who are between 2 and 4 months old.

Babies placed on their stomachs to sleep are much more likely to die of SIDS than babies placed on their backs.

For more information about SIDS and the National Institute of Child Health and Human Development's Back to Sleep campaign, visit http://www.nichd.nih.gov/sids/

There are other causes of sudden unexpected infant death that occur during sleep, including suffocation, asphyxia, and entrapment. The American Academy of Pediatrics recommends focusing on a safe sleep environment to reduce the risk of all sleep-related infant deaths, including SIDS. These recommendations include use of a firm sleep surface, breastfeeding, room-sharing without bed-sharing, routine immunizations, consideration of using a pacifier, and avoidance of soft bedding, overheating, and exposure to tobacco smoke, alcohol, and illicit drugs.⁹

Cardiopulmonary Resuscitation (CPR)

Cardiopulmonary resuscitation (CPR) is the immediate treatment for cardiac arrest. CPR restores limited oxygen to the brain through a combination of chest compressions and rescue breaths.

When a child's heart stops or is too weak to create obvious signs of life, early CPR, with an emphasis on effective rescue breaths, offers the best chance for survival.¹⁰

CPR skills vary a bit, depending on age. When describing age groups in relation to CPR, an infant is younger than 1 year of age. A child is 1 year of age until the onset of puberty. Puberty can be estimated by breast development in



females and the presence of armpit hair in males. An adult is from the onset of puberty and older.

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Pediatric Chain of Survival

The pediatric chain of survival is often used to describe the best approach for treating a child in cardiac arrest. Each link in the chain is essential for a child to survive. If a single link is weak or missing, the chances for survival are greatly reduced. The greatest chance exists when all the links are strong.

- Prevention of the typical causes for airway and breathing emergencies
- Early CPR, with an emphasis on effective rescue breaths
- Prompt activation of EMS to quickly get professional care
- Effective basic and advanced EMS care and transport, and
- · Effective post-cardiac arrest care at a hospital

Opioid Overdose

The abuse of opioid drugs is a serious and growing health problem. Increasing prescriptions for opioid pain relievers, such as hydrocodone and oxycodone, have made them more commonly available. The use of heroin, a highly addictive opioid, is also contributing to the problem.

As a result, overdoses and deaths from prescription opioids and heroin have risen dramatically among both adults and adolescents.¹¹ With wider availability, the chance of an accidental overdose of a young child has also increased. Opioids, taken in excess, can depress and stop breathing. Opioid overdose is a clear cause of secondary cardiac arrest.

Naloxone, also known as Narcan, is a medication that can temporarily reverse the life-threatening effects of opioids. Naloxone is becoming more readily available to those without formal medical training.

Sudden Cardiac Arrest

Different than secondary cardiac arrest, sudden cardiac arrest primarily affects adults. It can happen with little or no warning. Victims abruptly become unresponsive and collapse. Abnormal gasping can occur. Breathing stops.

The most likely cause of sudden cardiac arrest is an unexpected disruption to the heart's electrical system in which normally organized electrical pulses become disorganized and a chaotic quivering condition known as ventricular fibrillation occurs. Blood flow, along with the oxygen it carries, stops. Without blood flow, brain damage occurs rapidly and quickly leads to death.

CPR

CPR is the immediate treatment for sudden cardiac arrest. However, CPR alone is not enough.



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Early Defibrillation

The most effective way to end fibrillation is defibrillation, using a defibrillator and electrode pads applied to the chest. A controlled electrical shock is sent through the heart to stop ventricular fibrillation, allowing the heart's normal electrical activity to return and restore blood flow.

Successful defibrillation is highly dependent on how quickly defibrillation occurs. For each minute in sudden cardiac arrest, the chance of surviving goes down by about 10 percent. After as few as 10 minutes, survival is unlikely.

Simply activating EMS will not help. Even in the best EMS

systems, the amount of time it takes from recognition of the arrest to EMS arriving at the side of the victim is usually longer than 10 minutes.

An automated external defibrillator, or AED, is a portable, computerized device that is simple for anyone to operate. Bystander use of AEDs has been growing steadily, with common placements of the devices in public locations such as airports, hotels, and workplaces.

Turning on an AED is as simple as pushing a power button. Once on, an AED provides voice instructions to guide an operator through its use.

An AED automatically analyzes the heart rhythm to determine if a shock is needed. If a shock is advised by the AED, the operator clears the person and pushes a button to deliver the shock.

Adult Chain of Survival

The adult chain of survival is often used to describe the best approach for treating sudden cardiac arrest.

- · Early recognition of cardiac arrest and activation of EMS
- Immediate CPR with high-quality chest compressions
- · Rapid defibrillation of the heart
- Effective basic and advanced EMS care and transport, and
- · Effective post-cardiac arrest care at a hospital

Sudden Cardiac Arrest in Children

Although rare, children can experience sudden cardiac arrest with ventricular fibrillation due to existing heart problems or an accident such as a blow to the chest or an electrocution. When available, include the use of an AED when cardiac arrest of a child or infant occurs.





Knowledge Check

The adult chain of survival is often used to describe the best approach for treating sud-den cardiac arrest. The first three links of the chain are typically the responsibility of a trained first aid provider. Describe those links.

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Chest Compressions.

Class Method: Initial *Class Type:* Classroom *Length:* 30 minutes

Why This Topic Matters

Knowing how to perform high-quality chest compressions is necessary for CPR to be effective for cardiac arrest.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

How to perform high-quality chest compressions for the age groups being covered

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

High-quality chest compressions for the age groups being covered

Equipment

• Disposable gloves, CPR manikins for the age groups being covered, metronome/audio prompting device (optional), LOOP Learning System (optional)

Instructor Activities_

- Present Knowledge Content Show Video (approx. duration 3:30) or Slides
 - · Emphasize key points as needed.
 - ✓ Chest Compressions
 - External compression of the chest increases pressure inside the chest and heart, forcing blood to move from the chest to the rest of the body.
 - Quality matters. The better you compress, the greater the influence on survival.
 - Compress deeply.
 - Compress fast.
 - Allow the chest wall to fully recoil between compressions.
 - Children
 - Kneel close to the chest and use the heel of one hand on the breastbone just above the point where the ribs meet.
 - Compress deeply. Using the heel of one hand, press straight down at least one-third the full depth of the chest, or about two inches.
 - Compress fast, between 100 and 120 times per minute.
 - Do not lean on the chest between compressions.
 - Compressions can be tiring. Use two hands to perform compressions if needed, in order to maintain quality.
 - ✓ Adults
 - Kneel close to the chest and use two hands on the center of the chest.
 - Compress deeply, at least 2 inches.
 - Compress fast, between 100 and 120 times per minute.
 - Do not lean on the chest between compressions.
 - Infants
 - Use the tips of two fingers just below an imaginary line drawn between the nipples.
 - Compress deeply, at least one-third the full depth of the infant's chest, or about $11/_2$ inches.
 - Compress fast, between 100 and 120 times per minute.

- Ask for and briefly answer any questions.
- Refer students to pages 17-21 of the Student Book.
- Use the Knowledge Check activity to evaluate and increase retention.



Demonstrate Skills

- Depending on the age groups being covered, perform a WHOLE-PART-WHOLE demonstration of Skill Guide 2 Chest Compressions — Children, Skill Guide 3 — Chest Compressions — Adults, and Skill Guide 4 — Chest Compressions-Infants.
- If necessary, demonstrate again with explanation.

Student Practice

- Arrange students into pairs or small groups. Have one student act as a coach by reading the skill steps from the skill guide while another student performs Chest Compressions on a manikin.
- · Have students rotate through the roles until all have played each role.
- Circulate through the groups looking for competent performance. Use positive coaching and gentle correction to improve student skills.
- Repeat practice for each age group covered.

Instructor Note:

Have students practice at least 2 sets of 30 chest compressions each during the practice for each age group being covered.

Consider using a metronome as an auditory guide to set the required compression rate. Free or low-cost metronome apps are available for your mobile phone or tablet.

Optional — Integrating the LOOP Learning System (Adult Skills Only)

- When available, the LOOP Learning System can be integrated into the chest compression practice to help improve the quality of compression skills.
 - Instructors can simply have students use LOOP devices when going through the practice as described above and allow for the real-time feedback and correction of skills. Practice sessions are recorded for review.
 - An alternative is to use LOOP devices after the described practice to provide additional practice with feedback, correction, and review.

Optional ---- Video Guided Practice

- Instructors have the option to use Video Guided Practice: Chest Compressions instead of the student practice described above.
 - ✓ Arrange students so each has a manikin and a clear view of the video screen.
 - ✓ Explain to students that they will perform skills along with the video demonstration.
 - ✓ When everyone is ready, play the video.
 - Circulate through the students looking for competent performance. Use positive coaching and gentle correction to improve skills.
 - ✓ If you feel additional practice is needed, run the practice again.



Evaluation

• Confirm each student demonstrates the correct steps and decision-making tasks in the proper sequence as defined by the skill criteria in the skill guide, for the age groups being covered.



Close

• Ask for and answer any questions before moving on to the next lesson.



Knowledge Check

What are 3 measures of high-quality chest compressions for a child?

- 1. Compress deeply, at least 1/3 the full depth of the chest or about 2 inches.
- 2. Compress fast, between 100 and 120 times per minute.
- 3. Get close but do not lean on chest, and allow the chest to fully recoil.

NEXT CORE LESSON: *Rescue Breaths*



Chest Compressions



There is a set of basic CPR skills used to treat cardiac arrest:

- · Chest compressions
- · Rescue breaths
- Use of an automated external defibrillator
- · Checking for life-threatening emergencies using a Primary Assessment

External compression of the chest increases pressure inside the chest and directly compresses the heart, forcing blood to move from the chest to the lungs, brain, and the rest of the body.

Quality matters. The better you compress, the greater the influence on survival. Focus on high-quality techniques. For a child:

- Compress deeply, at least 1/3 the depth of the chest or about 2 inches.
- Compress fast, between 100 and 120 times a minute.
- Get close and do not lean on the chest. Allow the chest wall to fully recoil, or rebound, at the top of each compression.

Compression rate can be improved during practice with the use of a device such as mobile metronome app.



Compressions can be tiring. If you need to, use two hands to perform compressions on a child.

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Adults

The two-handed compression technique is also used for adults.

For an adult:

- · Compress deeply, at least 2 inches.
- Compress fast, between 100 and 120 times a minute.
- Get close and do not lean on the chest. Allow the chest wall to fully recoil, or rebound, at the top of each compression.

CPR feedback devices measure things such as depth, rate, and timing are available to improve adult compression quality during practice.

When compressing properly on an adult, you may hear and feel changes in the chest wall. This is normal. Forceful external chest compressions may cause chest injury, but are critical if the person is to survive. Reassess your hand positioning and continue compressions.

Infants

Infant chest compressions are performed using the tips of two fingers just below an imaginary line drawn between the nipples.

For an infant:

- Compress deeply, at least 1/3 the depth of the chest or about 1 1/2 inches.
- Compress fast, between 100 and 120 times a minute.





Knowledge Check What are 3 measures of high-quality chest compressions for a child?

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SKILL GUIDE 2

Chest Compressions — Children







Position child face up on a firm, flat surface. Kneel close to chest.

Position Your Hand(s)

 Place heel of one hand on lower half of breastbone, just above point where ribs meet. Use both hands if needed.

Position Your Body

 Bring your body up and over chest so your shoulders are directly above your hands. Straighten your arms and lock your elbows.

Compress

- Bending at waist, use upper body weight to push straight down 1/3 depth of chest, or about 2 inches.
- Lift your hand and allow chest to return fully to its normal position. Move immediately into downstroke of next compression.
- Avoid leaning on chest at top of each compression.
- Continue compressions at a rate of 100-120 times per minute.

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Chest Compressions — Adult







Position Your Hands

- Position person face up on a firm, flat surface. Kneel close to chest.
- Place heel of one hand on center of chest, on lower half of breastbone.
- Place heel of your other hand on top of and parallel to first. You can interlace your fingers to keep them off chest.

Position Your Body

 Bring your body up and over chest so your shoulders are directly above your hands. Straighten your arms and lock your elbows.

Compress

- Bending at the waist, use upper body weight to push straight down at least 2 inches.
- Lift hands and allow chest to fully return to its normal position. Move immediately into downstroke of next compression.
- Avoid leaning on chest at the top of each compression.
- Continue compressions at a rate of 100-120 times per minute.

SKILL GUIDE 3

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SKILL GUIDE 4

Chest Compressions — Infants





Positioning

- · Position infant face up on a firm, flat surface.
- · Place 2 fingertips on breastbone just below nipple line.

Compress

- · Compress at least 1/3 depth of chest, or about 1 1/2 inches.
- · Lift fingers and allow chest to return fully to its normal position. Move immediately into downstroke of next compression.
- Continue compressions at a rate of 100-120 times per minute.

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Primary Assessment — Unresponsive_

Class Method: Initial *Class Type:* Classroom *Length:* 7 minutes

Why This Topic Matters

The primary assessment helps a pediatric first aid provider quickly identify immediate life-threatening problems.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

- The steps of a primary assessment for an unresponsive person
- How to place an unresponsive, breathing person into a side-lying recovery position

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

• The steps for performing high-quality CPR and using an AED as a single provider for the age groups being covered

Instructor Activities_

- Present Knowledge Content Show Video (approx. duration 3:30) or Slides
 - Emphasize key points as needed.
 - Primary Assessment Unresponsive
 - A primary assessment is a simple way to quickly identify if a life-threatening condition is present.
 - The basic steps of a primary assessment are as follows:
 - a. Check for responsiveness.
 - b. If unresponsive, activate EMS and get an AED.
 - c. Assess for normal breathing.
 - Provide the care indicated by the assessment:
 - a. If not breathing or only gasping, perform CPR beginning with compressions. Weak, irregular gasping can occur early in cardiac arrest; this provides no usable oxygen and is not normal.
 - b. If breathing normally and uninjured, place the person in a side-lying recovery position to protect the airway.
 - Ask for and briefly answer any questions.
 - Refer students to pages 31–34 of the Student Book.
 - Use the Knowledge Check activity to evaluate and increase retention.

Demonstrate Skills

- Perform a WHOLE-PART-WHOLE demonstration of Skill Guide 9 Primary Assessment Unresponsive.
- If necessary, demonstrate again with explanation.

Instructor Note:

The student practice for Primary Assessment—Unresponsive Person is incorporated in Caring for Cardiac Arrest.

Although there is not an associated skill practice, a skill sheet is provided to detail the steps of the Recovery Position.

Close

• Ask for and answer any questions before moving on to the next lesson.



Knowledge Check

A fourth grade student collapses near you during a student assembly. As a trained pediatric first aid provider, you move to help. You kneel next to him, squeeze his shoulder, and loudly ask, "Are you all right?" He is unresponsive, so you direct a nearby teacher to activate EMS and get an AED. As you look closely at the face and chest for breathing, he makes a brief gasping snort, but then remains still. What do you do next?

Perform CPR immediately, starting with compressions. Irregular gasping, snorting, or gurgling sounds do not provide oxygen and do not indicate normal breathing.

NEXT CORE LESSON: Caring for Cardiac Arrest



Primary Assessment — Unresponsive



The primary assessment is a simple way to quickly identify if a life-threatening condition is present. It is the initial approach to anyone suspected of being ill or injured.

Before anything else, pause and assess the scene for hazards. If the situation is dangerous to you, do not approach.

If safe, begin by checking for responsiveness. Tap or squeeze the shoulder and ask loudly, "Are you all right?" For an infant, tap the foot.

If unresponsive, have a bystander activate EMS and get an AED.

Quickly look at the face and chest for normal breathing. Take no longer than 10 seconds. Normal breathing is effortless, quiet, and regular.

Weak, irregular gasping, snorting, or gurgling sounds can occur early in cardiac arrest. These actions provide no usable oxygen. This is not normal breathing. If you are unsure, assume breathing is absent.

If the child is not breathing, or only gasping, perform CPR, beginning with compressions.

If the child is breathing normally, and uninjured, place him or her in a side-lying recovery position to help protect the airway.



When Alone During a Primary Assessment

If you are alone with an unresponsive child, use a mobile phone, if available, to activate EMS yourself. The speaker function will allow you to talk with the EMS dispatcher and provide care at the same time. If you need to leave the child to activate EMS or get an AED, provide about two minutes of CPR before you go. Return as quickly as you can.

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Recovery Position

The recovery position is the same for all ages. It helps protect the airway by using gravity to drain fluids from the mouth and keep the tongue from blocking the airway.

After a child is placed in a recovery position, frequently assess and monitor breathing. The child's condition could quickly become worse and require additional care.

If child has been seriously injured, do not place in a recovery position unless fluids are in airway, or you need to leave to get help.

Always perform a primary assessment anytime you suspect someone is ill or has been injured to quickly determine the need for CPR.





Knowledge Check

A fourth grade student collapses near you during a student assembly. As a trained pediatric first aid provider, you move to help. You kneel next to him, squeeze his shoulder, and loudly ask, "Are you all right?" He is unresponsive, so you direct a nearby teacher to activate EMS and get an AED. As you look closely at the face and chest for breathing; he makes a brief gasping snort, but then remains still. What do you do next?

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Primary Assessment — Unresponsive









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Assess Scene

- Pause and assess scene for safety.
- If unsafe, or if it becomes unsafe at any time, Get out!



Check for Response

- Tap or squeeze shoulder and ask loudly, "Are you all right?"
- · For an infant, tap the foot.
- If unresponsive, have someone activate EMS and get an AED.

Look for Normal Breathing

- Position child face-up on a firm, flat surface.
- Look at face and chest for normal breathing. Take no longer than 10 seconds. If unsure, assume breathing is not normal.
- Weak, irregular gasping, snorting, or gurgling is not normal breathing.

Provide Indicated Care

- If child is not breathing, or only gasping, perform CPR, beginning with compressions.
- If normal breathing is found, place an uninjured child in recovery position.

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Recovery Position





Prepare

- · Place arm nearest you up alongside head.
- · Bring far arm across chest and place back of hand against cheek.
- Grasp far leg just above knee and pull it up so the foot is flat on ground.



Roll

- · Grasping shoulder and hip, roll child toward you in a single motion, keeping head, shoulders, and body from twisting.
- · Roll far enough for face to be angled toward ground.

Stabilize

- · Position elbow and legs to stabilize head and body. Ensure there is no pressure on chest that restricts breathing.
- · Make sure head ends up resting on extended arm and head, neck, and body are aligned.

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SKILL GUIDE 10

Swollen, Painful, or Deformed Limb.

Class Method: Initial *Class Type:* Classroom *Length:* 6 minutes

Why This Topic Matters

Effective first aid treatment by a trained provider can prevent additional injury and complication to an injured limb.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

How to recognize and provide first aid treatment for a swollen, painful, deformed limb

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

• How to manually stabilize a swollen, painful, deformed limb (optional)

Equipment

• Disposable gloves, padding material

Instructor Activities_

- Present Knowledge Content Show Video (approx. duration 3:30) or Slides
 - Emphasize key points as needed.
 - ✓ Swollen, Painful, or Deformed Limb
 - Bones, muscles, and joints give the body shape, allow movement, and protect internal organs.
 - Long bones form the upper and lower parts of the limbs; muscles, ligaments, and tendons allow for movement where these bones come together. These bones are the most exposed to external forces and injury.
 - It is often difficult to distinguish the type of injury. It is best to treat everything as a possible fracture.
 - An open wound may be present in association with a fracture. If needed, expose the injury site and control any bleeding using direct pressure on the bleeding site.
 - Unstable bone ends can damage surrounding tissue; encourage the child not to move or use an injured limb.
 - Use padding in gaps around and below the limb to provide a stable place for it to rest. If needed, place your hands above and below the injury site to help immobilize it.
 - Local cooling can help decrease bleeding, swelling, and pain.
 - It is best not to straighten an angulated limb; leave it in the position found.
 - If the limb becomes blue or extremely pale, circulation is compromised. Activate EMS.
 - Splinting an injured limb can reduce pain and prevent further injury. It is best to rely on EMS personnel to splint.
 - Ask for and briefly answer any questions.
 - Refer students to pages 60–62 of the Student Book.
 - Use the Knowledge Check activity to evaluate and increase retention.



Demonstrate Skills

- Perform a WHOLE-PART-WHOLE Demonstration of Skill Guide 21 Manual Stabilization of a Limb.
- If necessary, demonstrate again with explanation.

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Student (Optional)

- Arrange students into small groups. Have one student act as a coach by reading the skill steps from the skill guide while another student simulates performing Manual Stabilization of a Limb on another person.
- · Have students rotate through the roles until all have played each role.
- Circulate through the groups looking for competent performance. Use positive coaching and gentle correction to improve student skills.

Instructor Note:

The application of local cooling can be verbalized by students during the practice.



Evaluation (Optional)

• Confirm each student demonstrates the correct steps and decision-making tasks in the proper sequence as defined by the skill criteria in the skill guide.



Close

• Ask for and answer any questions before moving on to the next lesson.



Knowledge Check

While playing outside, a young child trips and falls onto her outstretched arm. She is awake, crying, and appears to be in severe pain. As a responding pediatric first aid provider, you carefully expose the injury site and see the forearm near the wrist is bent at an unnatural angle. The child's hand beyond the injury is a purplish-blue color. What do you do?

Activate EMS. Do not attempt to straighten the injured limb. Stabilize the injury and control any bleeding using a clean dressing and firm, continuous, direct pressure on the bleeding site. Comfort, calm, reassure and reassess the child and injury regularly until EMS personnel take over.

NEXT CORE LESSON: Burns

Swollen, Painful, or Deformed Limb



External force to a limb can result in an injury to the underlying skeletal system.

Bones, muscles, and joints give the body shape, allow movement, and protect vital internal organs. Long bones form the upper and lower parts of each limb. Muscles, ligaments, and tendons attach to the bones, allowing for movement where the bones come together at joints. These bones are the most exposed to injury.

There are four different types of injuries affecting bones, muscles, and joints:

- · Strains are stretching or tearing injuries to muscles or tendons.
- · Sprains are tearing injuries to ligaments that hold joints together.
- Dislocations are the separation of bone ends at a joint.
- · Fractures are breaks in bones.

Common signs of these types of injuries include swelling, pain, numbness, and discoloration. Distinguishing the type of injury is often difficult. It is best to treat everything as a possible fracture.

The limb may appear deformed and the child may guard it by holding it against her body. Unstable bones or joints can damage surrounding tissue. Encourage the child to not move or use the injured limb. If the injury seems serious, or you are not sure, activate EMS.

Expose the injury site by gently cutting or tearing away clothing. An open wound may be present in association with a fracture. Control any bleeding using a clean dressing and firm, continuous, direct pressure on the bleeding site. Do not push a bone back under the skin.

Use padding in the gaps around the limb to provide a stable and comfortable spot for the limb to rest. If needed, place your hands above and below the injured area to help immobilize the limb. Local cooling can help decrease bleeding, swelling, and pain.

Local Cooling

For many injuries, local cooling can help decrease bleeding, swelling, and pain. A plastic bag filled with a mixture of ice and water works best. Place a thin cloth between the bag and skin to prevent cold related problems. Limit application to 20 minutes or less.

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SUDDEN INJURY

It is best to not straighten an injured limb that is unnaturally angled. Leave the limb in the position found. If a limb becomes blue or extremely pale, circulation may be compromised by the injury. If you have not yet done so, activate EMS if this occurs.

Splinting an injured limb can reduce pain and prevent further injury, especially when moving an injured child. In general, it is best to rely on EMS personnel to splint, as they have more extensive training, experience, and equipment.

Comfort, calm, and reassure the child. Reassess the child and injury regularly until EMS personnel take over.



SUDDEN



Knowledge Check

While playing outside, a young child trips and falls onto her outstretched arm. She is awake, crying, and appears to be in severe pain. As a responding pediatric first aid provider, you carefully expose the injury site and see the forearm near the wrist is bent at an unnatural angle. The child's hand beyond the injury is a purplish-blue color. What do you do?

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Sudden Injury

Manual Stabilization of a Limb







Skill Guide 21

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Expose Injury

- Encourage child not to move injured limb.
- Expose injury site to look for an open wound.

Cover Open Wounds

- Cover an open wound with a clean absorbent pad.
- Gently control bleeding with firm, continuous, direct pressure around bone or injury site.
- Never push an exposed bone back under skin.

Stabilize Limb

- Leave injured limb in position it was found.
- Use padding in gaps and holes underneath limb to provide a stable and comfortable spot for it to rest.
- If needed, use your hands to manually stabilize limb.

Additional Considerations

- If injury seems serious, or you are not sure, activate EMS.
- · Comfort, calm, and reassure child.
- Local cooling can help decrease bleeding, swelling, and pain.

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