

ACT High School CPR & AED School-Based Model for Teachers



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ACT HIGH SCHOOL CPR & AED PROGRAM SCHOOL-BASED MODEL FOR TEACHERS

The Advanced Coronary Treatment (ACT) Foundation originally piloted the high school CPR initiative in Ottawa in 1994, with the support of local school boards and community partners. Educators were enthusiastic and over the years they have contributed extensively to the development of this School-Based Model for Teachers, which acts as a guide for program delivery. Following the success of the ACT High School CPR Program, ACT is now adding Automated External Defibrillator (AED) training as an enhancement. Through this enhancement, students are learning how to use an AED, an electronic device that administers an electric shock to restore heart rhythm. The goal of the program is to expand students' capacity to respond to cardiac emergencies beyond their CPR training, to include defibrillation.

The ACT Foundation is a national charitable organization that works alongside educators, schools, health professionals, governments and the community in promoting health and empowering Canadians to save lives. ACT raises funds to donate mannequins, AED training units, teacher training and materials to schools and guides schools in setting up a long-term, self-sustaining CPR and AED program. ACT is working with partners across the country to bring the lifesaving CPR and AED program to Canadian high schools, and hundreds of thousands of youth have already been trained by their teachers. ACT's health partners are: AstraZeneca Canada, Sanofi Canada and Amgen Canada.

ACT has received critical input into program development and the creation of resources from curriculum coordinators, physical education department heads, teachers, curriculum advisors, principals, CPR instructors, instructor trainers and students. This guidance has been essential to the success of this initiative and for this, the ACT Foundation is truly grateful.

In particular, the ACT Foundation would like to say a very special thanks to: Jennifer Boissonneault, Lisa Cameron, Margie Chaput, Gerry Clarke, Allan R.J. Holtz, Les Johnson, Donna Mailloux, Dr. Justin Maloney, Joe Micucci, Carol Rocks, Carol Rosenthal, Myra Stephen, Joe Veryard, and Michael Whitehead.

The ACT Foundation would also like to thank our many partners across Canada whose support has been key in bringing this program to the community level. These partners include: medical directors of emergency medical services, CPR teacher training agencies, elected officials, provincial governments, corporate citizens, service clubs and many other community groups.

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Dear Teacher:

Welcome to the ACT High School CPR and AED Program! The ACT Foundation is the national, charitable organization dedicated to helping schools establish high school CPR and Automated External Defibrillator (AED) training for students.

Our goal is to bring the ACT High School CPR and AED Program to every Canadian high school. To date, more than 3,900,000 youths from more than 1,800 high schools have been trained through the CPR program and now schools are enthusiastically embracing the AED addition! We fundraise for mannequins, CPR agency teacher training costs, AED training units, and materials, and guide schools in program setup. Teachers are then equipped to teach their students CPR and how to use a defibrillator and schools own the program. We are pleased to provide this document as a suggested School-Based Model (SBM) to assist you in setting up a long-term and sustainable program. This model is based on our highly successful Ottawa program, established in 1994. The SBM complements ACT's Student Manual, which we are pleased to provide to schools with copyright permission to freely print for students.

Schools are encouraged to adapt this School-Based Model to suit their needs. Regarding teacher training, we are pleased to have formed partnerships with many CPR and AED agencies and have developed a Teacher Training Workshop specifically for high school teachers. It takes into account your teaching expertise and is shorter than the standard public CPR and AED Instructor course. If you contact a CPR and AED agency that is not yet familiar with the ACT High School CPR and AED Teacher Training Workshop, encourage the agency to contact ACT for more information. See ACT's web site for a list of CPR and AED agencies near you. We are also pleased to host a special section on our website with further information and resources for schools: www.actfoundation.ca

Please note, it is the responsibility of schools to ensure that all teachers who teach the CPR and AED Program to students participate in the Teacher Training Program and attend a half-day refresher training session every three years (see Appendix G for more information).

You will find the CPR and AED program extremely popular among students. They will be excited to be empowered to save a life. Please let us know if any of your students use any of their CPR or AED skills and knowledge to help save a life. Whether it be calling 911, performing the obstructed airway manoeuvre, performing CPR, or using an AED, we want to hear about it (see Appendix F: ACT Awards Program - Feedback Form).

As with other health courses, a level of sensitivity is important in case a student in your class has already had a personal experience with a cardiac emergency. Also remember, even if a victim does not survive after receiving CPR, the rescuer is still a hero for trying.

Congratulations to your school for implementing the ACT High School CPR and AED Program, and to your local partners who are helping to make it possible!

Sincerely,

Sandra E. Clarke
Executive Director

Justin Maloney, MD
Medical Director



PROGRAM OUTLINE

OVERVIEW AND PLANNING

ACTIVITY TITLE:

Cardiopulmonary resuscitation (CPR), automated external defibrillator (AED) and emergency response systems

TIME:

120-180 Minutes

DESCRIPTION:

The High School CPR & AED Program offers two options for teaching adult/teen CPR:

1. 'Heartsaver Level CPR' course in which the CPR technique includes giving breaths.
2. 'Compression-Only CPR' course in which the CPR technique does not include giving breaths. This is the only difference between the two options—everything else is identical.

Students will develop an understanding of the “4Rs” of CPR (Risk, Recognize, React, and Resuscitate) and strategies to deal with respiratory and cardiovascular emergencies. They will develop an understanding of risk factors for heart disease and stroke, and recognition of the early warning signs of a heart attack or stroke. They will demonstrate an understanding of how to access the emergency medical service system and how to perform the skills of one-person CPR, the proper use of an AED, and the obstructed airway manoeuvre.

PRIOR KNOWLEDGE REQUIRED:

Students will require some prior knowledge and experience to be successful in meeting the prescribed learning outcome:

- Group work skills.
- Basic understanding of circulatory and respiratory system.

PLANNING NOTES:

- Teachers should be sensitive to students who may have been close to an individual who recently suffered a cardiac emergency or death.
- Teachers can reduce the instructor/student ratio for the skill component of CPR and AED through some of the following strategies:
 - Invite community members trained in CPR and AED to assist in the class (e.g. paramedics, firefighters, police, parents). See Appendix A – Parent Information and Volunteer Letter.
 - Include senior students trained in CPR and AED to act as small group leaders, peer teachers.
 - Identify students in the class currently certified in CPR and AED through swimming, work etc.
- Schedule an area where the students can spread out, preferably with a mat or carpet for practice sessions in CPR and AED (e.g. half gym, library).
- Review the use of the AED training unit before class to ensure batteries are working and you are familiar with all buttons and scenarios.
- Book mannequins. Where mannequins are not yet available, see section 6 in “Teaching and Learning Strategies” (page 7) for a suggested approach to teaching without mannequins.
- If mannequins are on site, ensure they are clean and that there are sufficient lung bags for all students.
- Provide checklists of emergency procedures and posters for visual reference for students.
- Download the ACT High School CPR & AED Training Video to use with students from ACT's website: www.actfoundation.ca
- Review and update knowledge/skills related to CPR, AED, and school emergency plan.
- Provide additional visuals or equipment for students with special needs.
- Contact ACT Foundation at 1-800-465-9111 or visit the ACT Web site (www.actfoundation.ca) for information on how to access the ACT Student Manual (see Appendix J) free for copy, the ACT High School CPR & AED Training Video, the ACT High School CPR and AED Program Student Course Completion Cards (see sample in Appendix C), or other ACT resources. Contact your local CPR agency for additional resources.



TEACHING AND LEARNING STRATEGIES

1. Review the school emergency plan and discuss how many emergencies can be prevented in physical activities by using safety precautions and having a healthy lifestyle. Students will brainstorm types of emergency situations that they might be exposed to in a variety of sports (e.g. field, gymnasium, water, recreational, snow/ice, etc.). In small groups, students will complete a chart listing two emergencies in each category and strategies to deal with each emergency. The teacher will assist the students in making connections between the school's emergency action plan and the emergency situations.

Homework assignment: Students identify a sport or an activity they like to participate in and state safety guidelines which should be imposed to reduce the risk of injury in that sport or activity. Guideline categories may include: facility, equipment, rules of play, supervision, etc.

2. Outline what CPR means, the "4 Rs" (Risk, Recognize, React and Resuscitate), and terms associated with CPR including: Chain of Survival and Emergency Response System, angina, heart attack, cardiac arrest and defibrillation. Identify the role students can play in the Chain of Survival. Discuss what 'AED' stands for and how an AED works.
3. **RISK:**
 - Lead the class in a discussion of the **RISK** factors for heart disease and stroke. Assist students in making the connection between a healthy active lifestyle and risk factors for heart disease and stroke. Students will reflect on their personal controllable risk factors and set one goal to limit personal risk for heart disease and stroke.
 - Visit ACT's website (www.actfoundation.ca) and associated heart health links, and have students report back to teachers.
4. **RECOGNITION:**
 - Discuss the importance of early **RECOGNITION** as a key link in the Chain of Survival. Students will brainstorm the signals of heart attack and discuss why/how they may be overlooked.
5. **REACT:**
 - View the ACT High School CPR & AED Training Video chapter 'Real Life Scenario and Introduction'.
 - Teacher will describe a scenario involving a cardiac emergency ("You come home and find..."). Students brainstorm their reaction. Follow-up with a discussion. Describe and demonstrate to students the appropriate steps to follow (**REACT**) if they suspect a person is having a heart attack (primary assessment). Help students distinguish between heart attack and cardiac arrest, and discuss secondary assessment.
 - Students will practice steps directed first by the teacher, then a peer, and then independently.
 - View video material available on cardiac emergency response.
 - Discuss how each emergency response is unique and the special considerations and steps involved if a head or neck injury is suspected.
 - Students can develop a public service announcement which informs the public of at least one of the "4 Rs" (Risk, Recognize, React, Resuscitate) of CPR that has been discussed.

The relevance behind teaching your students to say: "I've been trained. I can do this"™:

Strong self-talk is an essential component of learning and action
By Donna Mailloux, Researcher, Ottawa Catholic School Board

Classic studies in social psychology have demonstrated a reliable and perplexing effect. Although people may feel comfort and safety at having others around during an incident, that very presence of others actually makes it less likely that any one person will help. This behaviour, called the "bystander effect", is explained by the "diffusion of responsibility" i.e. the belief that someone else will take action. The most famous example is that of Kitty Genovese, a 19 year old woman who was murdered in 1964, in New York. Her screams were heard as 38 neighbours watched her being beaten to death in an attack that lasted half an hour. Although there was ample time to intervene or call the police, Kitty's neighbours chose to do nothing but watch (New York Times, 1964). In addition, even when people notice the event and interpret it as an emergency and want to act, observing the



TEACHING AND LEARNING STRATEGIES (CONTINUED)

passivity or apparent calmness of other people leads bystanders into fooling themselves in believing that there is no emergency. The bystander effect can impact the ability to perform CPR by creating doubt, and therefore, delaying the response time, reducing the motivation needed to remain focused, and hinder the ability to retrieve and use learned skills in an automatic procedural fashion.

What is required to counteract the bystander effect?

1. An awareness that this effect will likely occur when they encounter an emergency and an ability to recognize it.
2. Confidence in their skills so that they do not search for approval in an emergency situation.
3. The ability to initiate CPR must be based on the individual's own assessment of the situation rather than relying on others.

The phrase "**I've been trained. I can do this.**"TM coupled with real skills learning, provides self-talk that counteracts the bystander effect by bridging personal responsibility, learned skills and confidence. Learning is strongest when there is a unifying thread incorporating all three of these factors.

TEACH your students to be ready to interpret a situation like what you've covered in their CPR training as an emergency, to assume that the bystander effect will occur, and to be ready to act immediately according to their training regardless of the level of involvement from bystanders. Tell them to say to themselves: "**I've been trained. I can do this**"TM and then ACT IMMEDIATELY!

6. RESUSCITATE (See Appendix E for Teaching Tips):

One-person CPR

- Teacher will demonstrate one-person adult CPR and have students walk through the steps several times using mental imagery.
- Students will work in pairs or individually on a mannequin, first following the teacher's prompt and then with a partner guided by a prepared sequence/checklist.
- Students will work in small groups with teaching assistants as arranged by the teacher (senior students, paramedics, firefighter, police, etc.). In small groups, students will practice on their own mannequin while counting compression cadence out loud with the group.
- In situations where mannequins are not yet available or are available in limited quantities, the CPR skill will be introduced through a variety of methods: demonstrate performance of landmarking; practice compression rhythm on a pillow, toilet paper rolls wrapped together, bathroom weight scales, stacked gym mats, a ball tied between two flutter boards... In a large group, students simulate the CPR sequence with a partner **WITHOUT PERFORMING ACTUAL BREATHS AND COMPRESSIONS/THRUSTS** and under teacher supervision – emphasis is on sequence, proper landmark and rhythm.
- The teacher will set up a series of stations in which students simulate a response to a cardiopulmonary emergency in small groups or through a rotation to various stations such as:
 - I. Landmarking for choking on a partner – conscious and unconscious casualty.
 - II. Under teacher supervision, simulate CPR steps with a partner following the correct sequence **WITHOUT ACTUAL BREATHS AND COMPRESSIONS/THRUSTS** (students should be made aware of safety issues).
 - III. Student and teacher-developed task card scenarios/critical incidents written out, acted out and brainstormed for solutions.
 - IV. Demonstrate performance of landmarking, practice compression rhythm on mannequins or improvised mannequins.
 - V. Viewing of video on CPR technique.
 - VI. Simulate treatment for other cardiac emergencies (e.g. heart attack, angina).

TEACHING AND LEARNING STRATEGIES (CONTINUED)



Automated External Defibrillator (AED)

- Teacher will discuss through overhead, training video, and PowerPoint what the AED is, does, how it works, various heart rhythms, etc.
- Teacher will demonstrate how to prepare the person before using the AED (e.g. dry chest, no hair, no medication patches, gloves on, etc).
- Teacher will demonstrate the use of the AED and how it fits into the Chain of Survival with CPR. The teacher will show how an AED can be used by one person and how a second rescuer can assist (i.e. a rescuer would ask another person to call 911 and ask someone to get an AED. Once the AED has arrived, one rescuer would continue CPR while the other rescuer sets up the AED – e.g. AED is turned on, bare chest is exposed, chest is wiped dry if needed, pads are applied to the person's bare chest.)
- Students will be on a mat with a mannequin and an AED training unit for practice. The teacher will lead with prompts from one AED training unit. Try to get students to say each step out loud to become familiar with the procedures.
- Students will attempt to use the AED training unit with the use of a prepared sequence/checklist.
- Four student peer leaders, either from a senior class or other students who have already been trained on the AED, will each take a small group of students. They will practice again so that each student gets to use the AED training unit as many times as possible. The teacher can circulate to keep groups on task and to field questions.
- Evaluation checklists should be completed by teacher and/or senior students.
- Students can be given scenarios of CPR and AED to practice and demonstrate to class/small groups.
- Random students/teachers could be invited to a class for more realistic casualties. They can be given a role to play, where students will React and Resuscitate. This activity will give confidence and keep students on task.

The Obstructed Airway Manoeuvre

- Discuss the role of individuals who find themselves with someone who cannot breathe. Discuss the causes of choking and the characteristics of a mildly blocked and a severely blocked airway.
 - Walk students through the obstructed airway manoeuvre for helping a conscious choking person. Walk students through the obstructed airway manoeuvre for a conscious choking person who becomes unconscious, and an unwitnessed unconscious person with an obstructed airway.
 - Distribute performance checklists. Students will work in pairs to practice choking procedures by working through the checklist. The first few times, have one partner guide the other through the steps providing prompts or cues. Once students have had an opportunity to practice, partners may provide a peer assessment using the performance checklist as the student performs the procedure.
 - Students will role play emergency scenarios created by the teacher or other students either with partners or individually.
7. Work with students to create emergency care scenarios. Students demonstrate the appropriate actions for simulated emergency situations including choking (conscious and unconscious), not breathing, heart attack and cardiac arrest. Using file cards with scenarios described on one side and the emergency procedure described on the other, students work in pairs and move through a circuit of scenarios. Select realistic situations which students would likely experience (e.g. at home, school, backyard pool, hockey arena, soccer pitch, mall, dance, woods, etc.). Use a performance checklist to evaluate students' ability to identify appropriate strategies to deal with physical activity emergencies.

ASSESSMENT AND EVALUATION

A variety of assessment tasks should be employed to gather evidence of student achievement related to the expectations including:

1. Checklists, rating scales
2. Demonstrations
3. Independent study
4. Paper and pencil procedure: quiz, test, essay
5. Performance assessments (e.g. emergency care scenarios)
6. Role-play
7. Teacher/peer observation
8. Video/audio/photographs
9. Written assignments, ACT Student Manual (see Appendix J) review exercises (see Appendix K)
10. Personal communication (e.g. verbal response, logs, oral test, conference)

The teacher and students will gather evidence on the specific expectations outlined for this activity through:

- A formative assessment to determine whether students can identify strategies to deal with emergency situations related to physical activities.
- A formative assessment by peers using a performance checklist.
- A summative evaluation by teacher using a performance checklist related to emergency situation strategies.
- A summative evaluation by teacher/student of knowledge of one-person CPR (see Sample Performance Rubric on page 10).

Note: *The guidelines for CPR and AED are reviewed and revised periodically by the major CPR training agencies. Teachers are encouraged to contact their local CPR teacher-training agency for information on teacher training and guideline updates. In addition, please visit ACT's website: www.actfoundation.ca for further information, as well as teaching scenarios and new information related to the world of CPR, AED and the Chain of Survival.*

**Visit ACT's website for more teaching tools, tips, strategies and scenarios.
Check it out at: www.actfoundation.ca!**

SAMPLE PERFORMANCE RUBRIC – CPR & AED

Categories	Level 1 (50-59%)	Level 2 (60-69%)	Level 3 (70-79%)	Level 4 (80-100%)
Thinking/ Inquiry:	<p>Students will:</p> <ul style="list-style-type: none"> With assistance, assess simulated emergency situations Demonstrate they would call 911 and ask someone to get an AED in an emergency situation through role play 	<p>Students will:</p> <ul style="list-style-type: none"> With some assistance, assess simulated emergency situations and carry out procedures to obtain emergency help, call 911 and ask someone to get an AED 	<p>Students will:</p> <ul style="list-style-type: none"> Usually assess simulated emergency situations and carry out procedures to obtain emergency help, call 911 and ask someone to get an AED 	<p>Students will:</p> <ul style="list-style-type: none"> Independently and with consistency assess simulated emergency situations and demonstrate appropriate emergency response, call 911 and ask someone to get an AED
Applications:	<ul style="list-style-type: none"> With direction, carry out basic steps to provide emergency response for casualty of simulated cardiopulmonary emergency (e.g. heart attack, cardiac arrest, choking) Does not follow proper pre-application of AED pad procedures Rarely operate AED effectively in most situations 	<ul style="list-style-type: none"> With some assistance, carry out procedures to provide emergency response for casualty of specific simulated cardiopulmonary emergency (e.g. heart attack, cardiac arrest, choking) Sometimes follow proper pre-application of AED pad procedures Sometimes operate AED correctly 	<ul style="list-style-type: none"> Independently apply procedures to provide emergency response for casualties of simulated cardiopulmonary emergencies (e.g. heart attack, cardiac arrest, choking) Frequently follow proper pre-application of AED pad procedures Frequently operate AED correctly 	<ul style="list-style-type: none"> Fluidly and confidently carry out procedures to assess and provide emergency response for casualties of a variety of simulated cardiopulmonary emergencies Always follow proper pre-application of AED pad procedures Confidently operate AED correctly in all situations
Knowledge & Understanding:	<ul style="list-style-type: none"> With assistance, make connections between personal behaviour and cardiac risk factors and emergencies Rarely understand CPR application, AED use and AED functions Demonstrate a limited understanding of: <ul style="list-style-type: none"> Their role in the “Chain of Survival” The anatomy and terminology related to heart problems and heart health The risk factors related to heart disease The signs and symptoms of a cardiopulmonary emergency Lifestyle choices to lessen risk Rarely demonstrate the application of theory to real-life situations 	<ul style="list-style-type: none"> Begin to make connections between personal behaviour and cardiac risk factors and emergencies Understand CPR application, AED use and AED functions Demonstrate some understanding of: <ul style="list-style-type: none"> Their role in the “Chain of Survival” The anatomy and terminology related to heart problems and heart health The risk factors related to heart disease The signs and symptoms of a cardiopulmonary emergency Lifestyle choices to lessen risk Sometimes apply theoretical knowledge to real life situations 	<ul style="list-style-type: none"> Make connections between personal behaviour and cardiac risk factors and emergencies Understand CPR application, AED use and AED functions in most situations Frequently demonstrate an understanding of most of the concepts related to: <ul style="list-style-type: none"> Their role in the “Chain of Survival” The anatomy and terminology related to heart problems and heart health Risk factors that influence heart health The signs and symptoms of a cardiopulmonary emergency Lifestyle choices to lessen risk Frequently apply theoretical knowledge to real life situations 	<ul style="list-style-type: none"> Make connections between personal and extended family behaviour and cardiac risk factors and emergencies Understand CPR application, AED use and AED functions in all situations Consistently demonstrate an understanding of: <ul style="list-style-type: none"> Their role in the “Chain of Survival” The anatomy and terminology related to heart problems and heart health How certain lifestyle choices increase or decrease the risk of heart disease The signs and symptoms of cardiopulmonary emergencies Lifestyle choices to lessen risk Routinely demonstrate and can explain how theory is applied to real life situations
Communication:	<ul style="list-style-type: none"> Rarely focus on task Rarely take charge and talk through each step of CPR and AED 	<ul style="list-style-type: none"> Sometimes focus on task Sometimes take charge and talk through each step of CPR and AED 	<ul style="list-style-type: none"> Often focus on task Often takes charge and talk through each step of CPR and AED 	<ul style="list-style-type: none"> Always focus on task Always takes charge and talk through each step of CPR and AED

ACCOMMODATIONS FOR STUDENT DIFFERENCES

- Provide visual materials (e.g. posters, training videos, PowerPoint) to outline emergency procedures, CPR and AED.
- Provide a variety of methods of demonstrating understanding (e.g. written, verbal, performance).
- For students with special needs, you may include: key visuals or graphic organizers (e.g. webs, charts, partnering, increased repetition, brainstorming as a class, cooperative group learning, provision of written instructions etc.).
- For the theory component, where the student has difficulty reading, a teacher might read the questions out loud, reinforce the question and give a selection of three or four answers for the student to choose from. Presentation of concepts can be simplified (e.g. the heart and lungs may be drawn as a box diagram with colour-coded directional arrows to indicate the blood flow and oxygen distribution), which were previously agreed upon in teacher team meetings. Use of a smaller classroom for delivery of the didactic portion of the course can minimize distractions.
- For the practical component, a larger space may be needed to allow students to spread out and be comfortable with their own space. Regarding demonstration and practice of the obstructed airway manoeuvre, students may not be aware of their own strength. **Reinforce the “simulation” aspect to assure they don’t apply pressure.** Some students may be uncomfortable touching the mannequin. Involving these students in washing the mannequins may increase their comfort level and assure them that the mannequins are clean.

Also, for the practical component, consider using assistant teachers such as leadership students, senior students and co-op students, or parents who have prior CPR AND AED training. Break up the class into small groups for the practical sessions with an assistant for each group, or have assistants move from group to group. Teaching assistants could use the Sample Performance Checklist (see Appendix L) as a guide in small group practice sessions. The school might approach CPR agencies, paramedics and/or firefighters in the community who are willing to come into class and help teach CPR.

- For additional information, see Appendix E: Teaching Tips.

RESOURCES

1. ACT High School CPR & AED Training Video. Available for download from the ACT Foundation website (www.actfoundation.ca). Contact ACT at 1-800-465-9111 for more information.
2. ACT Foundation website: www.actfoundation.ca, includes a teacher section, student section, quizzes, games, video resources, and many more valuable resources.
3. ACT PowerPoint Presentation. Available for download from the ACT Foundation website. Contact ACT at 1-800-465-9111 for more information.
4. Advanced Coronary Treatment (ACT) Foundation. ACT School-Based Model for Teachers, © 2017, ACT Foundation. ACT High School CPR & AED Student Manual (see Appendix J), © Maloney M.D., Justin, 2017, ACT Foundation. Schools can obtain copyright approval to reproduce the ACT High School CPR & AED Student Manual and School-Based Model for Teachers free of charge by contacting ACT at 1-800-465-9111.
5. ACT CPR Trivia Game. Available for download from the ACT Foundation website. Contact ACT at 1-800-465-9111.
6. ACT High School CPR & AED Program Student Course Completion Card (see Appendix C). Contact ACT at 1-800-465-9111 or act@actfoundation.ca for more information.

You may also want to check with your local Heart and Stroke Foundation, Red Cross, St. John Ambulance and other CPR agencies for other resources for the Heartsaver CPR & AED course.



APPENDICES

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Saving people—Touching lives

**HIGH SCHOOL CPR & AED PROGRAM
School-Based Model for Teachers**

APPENDIX A

**Parent Information and Volunteer Letter
(Sample)**

Parent Information and Volunteer Letter:

Dear Parent,

This school year, your teen will learn cardiopulmonary resuscitation (CPR) and how to use a defibrillator. Research shows a person's chances of survival can increase by almost four times when a bystander performs CPR. According to the Heart and Stroke Foundation, survival rates can increase by up to 75% when an automated external defibrillator (AED) is used in conjunction with CPR in the first few minutes after a sudden cardiac arrest.

We are teaching students CPR and how to use an AED through the ACT High School CPR & AED Program as part of the curriculum. We will be teaching your teen how to save a life.

Learning CPR and AED in high school empowers youth to help as first responders in an emergency by becoming the first link in the Chain of Survival. The ACT High School CPR & AED Program will teach students the 4 Rs: **RISK** factors for heart disease and stroke, and the importance of a heart healthy lifestyle; how to **RECOGNIZE** the warning signs of a heart attack, stroke or other developing emergency; how to **REACT**; and finally, the hands-on skill of **RESUSCITATION (CPR and AED)**.

If you have some expertise as a CPR Instructor, paramedic, firefighter, nurse, doctor or police officer and would like to volunteer in the classroom, please contact me at _____.

The ACT Foundation is an award-winning national charitable organization dedicated to promoting health and empowering Canadians to save lives. ACT establishes the lifesaving CPR and AED program in high schools across Canada so that all youth will graduate with the skills and knowledge to save lives. ACT fundraises for mannequins and guides schools in program set-up. Mannequins and AED training equipment are donated to schools, and high school teachers are trained to teach CPR and AED to students as a regular part of the curriculum. The program would not be possible without the support of ACT's program partners, many of whom come from our very own community.

More than 3,900,000 teens across Canada have already been trained in CPR through the ACT program. Students are helping to save lives by calling 911, helping someone who is suffering a heart attack or who is choking, or administering CPR in a cardiac arrest emergency. Rescuers are recognized through the **ACT Awards Program**. If your teen uses any of the skills learned through this program to help save a life, please contact ACT by phone, toll free at **1-800-465-9111** or through their website (www.actfoundation.ca).

We are pleased to teach your teen CPR and how to use an AED through the ACT High School CPR & AED Program. And remember, it's a skill that's important for you to learn too. Think about it – if you were faced with an emergency situation, wouldn't you want to know what to do? Contact your local CPR agency to learn CPR! To find out where you can learn CPR and how to use an AED, visit ACT's website.

Sincerely,

Teacher

The **ACT Foundation** is the award-winning national charitable organization dedicated to promoting health and empowering Canadians to save lives.

ACT's health partners support ACT's national goal to bring the CPR program to every high school. They are:
AstraZeneca Canada, Sanofi Canada and Amgen Canada.



Saving people—Touching lives

HIGH SCHOOL CPR & AED PROGRAM School-Based Model for Teachers

APPENDIX B

ACT High School CPR & AED Training Video & PowerPoint Presentation To download, see ACT website:

www.actfoundation.ca

Note for teachers:

ACT's Training Video and PowerPoint presentation are available for download from the ACT website.

The ACT High School CPR & AED Training Video is intended to complement teaching the CPR technique, how to use an AED and the obstructed airway manoeuvre. The video is divided into to chapters to help you demonstate the techniques to the students. For more information on this resource, please visit ACT's website.

This PowerPoint is intended to complement your lecture on the 4Rs of CPR: Risk, Recognize, React and Resuscitate and how to use an AED. The slides correspond with the content in the ACT Student Manual (see Appendix J), with corresponding pages in the manual identified on each slide. For more information on this resource, please visit ACT's website.



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HIGH SCHOOL CPR & AED PROGRAM School-Based Model for Teachers

APPENDIX C


ACT High School CPR & AED Program Student Course Completion Card (Sample)

Note for teachers: This card recognizes student completion of either the ACT High School 'Heartsaver CPR' or 'Compression-Only CPR' and AED Program. When filling in the card you have the option of choosing either the 'Heartsaver CPR' course (including giving breaths) or the 'Compression-Only CPR' course depending on which option you are teaching the students.

Encourage students to present this card when applying for a job and to put it in their portfolios. Also, make them aware of any other situations you can think of where this card might come in handy. To find out how to obtain your ACT High School CPR & AED Program Student Course Completion Card for distribution to students, please contact your school board representative who oversees the ACT program. ACT provides school boards with copyright permission for printing the Student Course Completion Card. You may also contact the ACT Foundation to obtain a copy of the card (available in PDF) by email at act@actfoundation.ca, or by telephone at 1-800-465-9111.

SAMPLE COURSE COMPLETION CARD FOR STUDENTS

– Front –

SCHOOL BOARD LOGO	HIGH SCHOOL CPR & AED PROGRAM	
<p>_____ completed the High School CPR _____ on _____.</p> <p><i>Program in accordance with guidelines of Heart and Stroke Foundation of Canada.</i></p>		
_____ Instructor	_____ Medical Director	

– Back –

<u>REPORT A RESCUE!</u>	
Phone: 1-800-465-9111	twitter.com/actfoundation
Email: act@actfoundation.ca	facebook.com/theactfoundation
Web: actfoundation.ca	instagram.com/theactfoundation
	youtube.com/theactfoundation
 Saving people  Touching lives www.actfoundation.ca	PARTNER LOGO(S)

ACT HIGH SCHOOL CPR & AED PROGRAM STUDENT COURSE COMPLETION CARD HEARTSAVER CPR COURSE

Description of level of training and course completion card

The ACT High School CPR & AED Program prepares students in the HeartSaver Level A CPR course and how to use an automated external defibrillator (AED). It is equivalent to the short Level A CPR course they would take outside of school with various CPR agencies. The high school CPR course includes adult CPR, how to use an AED, and obstructed airway manoeuvre skills within the context of the 4 R's of CPR: Risk factor education; Recognition of a developing medical emergency and how to React; and Resuscitate (CPR & AED).

Through the ACT program, high school teachers are trained as HeartSaver Level A CPR Instructors for their students by CPR agency Instructors and Instructor Trainers from St. John Ambulance, Heart and Stroke Foundation, Red Cross and other agencies. Content of the ACT High School CPR & AED Program and the Student Course Completion Card is comparable to the HeartSaver Level A CPR & AED course available from CPR training agencies. The High School CPR & AED Program is endorsed by local Medical Directors. His/her name appears on the front of the student course completion card, and they serve as Medical Director for the ACT High School CPR & AED Program in their community. Students are encouraged to refresh their CPR and AED training every three years or less.

The ACT High School CPR & AED Program is intended to ensure all youth receive basic CPR training and how to use an AED as a life skill through their high school education. Inserting the short Heartsaver level A CPR course with AED into the curriculum as a mandatory course is manageable by schools in terms of length. ACT raises the funds to donate the mannequins, AED training units, AEDs, CPR agency cost of teacher training, and materials to schools and guides schools in program setup. All youth, even those who may not have otherwise sought out training or been able to afford it on their own are trained as potential lifesavers. After completing the HeartSaver Level A CPR with AED training, students are equipped with the essential knowledge and skills to save the life of a family member or friend in an emergency. They are encouraged to include the ACT High School CPR & AED Program on their resume.

The ACT High School CPR course is not the Level C CPR course (one full day including adult, infant, child and two-person CPR skills) usually required by lifeguards, health or childcare professionals. Students who require this more extensive Level C course need to access it through a local CPR agency. The ACT High School CPR & AED Program also does not include a standard first aid program and thus does not meet Occupational Health and Safety requirements for first-aid training. Students who need first aid training as a prerequisite for certain jobs or fields of study should contact their local first aid agency for a complete first aid course.

The ACT Foundation is proud to have set up the CPR program in more than 1,800 schools to date, empowering more than 3,900,000 students to save lives.



Saving people—Touching lives

HIGH SCHOOL CPR & AED PROGRAM School-Based Model for Teachers

APPENDIX D

Program Evaluation Forms for Teachers and Students

Note for teachers: These program evaluations are very important tools to assist the ACT Foundation in program development. Your feedback is very important to us. Please photocopy both forms. Fill out the teacher evaluation form yourself and have all students in one of your classes fill out the student evaluation form. Please scan all forms and send by email to the ACT Foundation (act@actfoundation.ca) or send by mail to:

ACT Foundation
379 Holland Avenue
Ottawa, Ontario
K1Y 0Y9



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www.actfoundation.ca

ACT High School CPR & AED Program Teacher Program Evaluation

Thank you for participating in this important initiative. We would like to gather your insights and opinions in order to improve the quality of the program. In addition, we are interested in recommendations and suggestions you might have for other school boards and colleagues who wish to implement this program.

Please take the time to complete the survey presented below. Your comments will remain confidential and the results will be presented in aggregate form only. Please return the survey as soon as possible. Thank you for your cooperation.

Name: _____ Date: _____

School: _____ School Board: _____

Which CPR course did you teach? Heartsaver CPR (with giving breaths)

Compression-Only CPR

How to use an AED

All of the above

1. The grade level in which the course is taught is appropriate.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
2. There was adequate time to teach the course.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
3. The evaluation process was easy to conduct: i) CPR ii) AED	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
4. The criteria for evaluating ___ skills was clear: i) CPR ii) AED	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
5. The CPR mannequin was an effective teaching tool.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
6. The AED training unit was an effective teaching tool.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
7. The AED training unit was easy to set up.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree



8. The AED training unit was easy to use as a teaching tool.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
9. How many AED training units do you have? ____ This number is sufficient for teaching the class.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
10. The student manual was effective and useful.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
11. The students found the course easy to understand and to learn.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
12. This course should be taught to all high school students.	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
13. I found the ____ course easy to teach. i) CPR ii) AED	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
14. The Teacher Training Workshop adequately prepared me to teach students in: i) CPR ii) AED	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree
15. How many hours did it take to teach the course to your students?	1 hour or less	2 Hours	3 Hours	4 Hours	More than 4 Hours
16. Approximately how long did it take you to clean and store the mannequins at the end of the class?	15 Minutes	30 Minutes	45 Minutes	60 Minutes	More than 60 Minutes
17. In what grade was the course taught?	7	8	9	10	11
18. Are there aspects of the course that should be taught in more depth, or additional materials that should be included?					
19. a) Did the training package (e.g. the School-Based Model) that you received in your Teacher Training Workshop meet your needs in teaching the course? If no, please describe. b) Do you have any comments or suggestions about how to improve or adapt the course materials or aids supplied for your students? If yes, please describe. c) Did you use the ACT Training Video? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please answer question 19. d) and e).					

19. d) Please rate the effectiveness of the ACT training video as a teaching tool.	1 Not Effective	2	3 Neutral	4	5 Very Effective
19. e) Do you have any comments or suggestions about how to improve the ACT training video? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please describe.					
20. a) Did you involve the help of assistants? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please answer question 20. b) and c). b) Please describe WHO you used as the assistants (e.g. senior students, previously CPR trained students, other teachers, etc.): c) Please describe HOW you used the assistants (e.g. with lecture, with practical, etc)?					
21. Were there any difficulties you encountered in the course set-up or course delivery? If yes, please describe.					
22. Was there any aspect of the training that students had difficulty learning? If yes, please describe.					
23. What are the strengths of this course?					
24. What are the weaknesses of this course?					
25. Do you have any other comments or suggestions?					
26. Please indicate any CPR & AED training you had prior to receiving the one-day Teacher Training Workshop for this program with the school. <input type="checkbox"/> None <input type="checkbox"/> CPR Level A Heartsaver <input type="checkbox"/> CPR Level A Heartsaver and AED <input type="checkbox"/> CPR Level C <input type="checkbox"/> CPR Level C and AED <input type="checkbox"/> Instructor's CPR Course <input type="checkbox"/> Instructor's CPR and AED Course <input type="checkbox"/> Other (please specify): _____					

Thank you for your time. If you have any questions, feel free to contact us at
 1-800-465-9111, or by e-mail act@actfoundation.ca.

Please return evaluations by mail to: ACT Foundation, 379 Holland Avenue, Ottawa, Ontario, K1Y 0Y9.





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www.actfoundation.ca

ACT High School CPR & AED Program Student Program Evaluation

CONGRATULATIONS on your course! We would like to ask you some questions about the training so that we can continue to improve our program. Please take a few minutes and answer the questions below. Only answer the questions pertaining to AED if your teacher taught you how to use an AED, if not, please leave those questions blank. **Your answers will be kept confidential. Please circle the number that best reflects your opinion on the scale beside each statement. Return the completed questionnaire to your teacher.**

PART A					
Statement	Strongly disagree		Neutral		Strongly agree
1. The classroom lectures were an important part of the training.	1	2	3	4	5
2. The information presented in the classroom lectures was easy to understand.	1	2	3	4	5
3. The student manual was an important part of the training.	1	2	3	4	5
4. Learning CPR is easy.	1	2	3	4	5
5. Learning how to use an AED is easy.	1	2	3	4	5
6. I had enough time to practice with the CPR mannequins.	1	2	3	4	5
7. I had enough time to practice with the AED training units.	1	2	3	4	5
8. My teacher seemed to know a lot about CPR and how to use an AED.	1	2	3	4	5
9. After taking this course, I think I could perform CPR in an emergency situation.	1	2	3	4	5
10. After taking this course, I think I could use an AED.	1	2	3	4	5
11. I think my grade is the right time to learn CPR & AED.	1	2	3	4	5
12. a) Did you watch the ACT training video (where student actors say "I've been trained. I can do this." TM)? If yes, please answer 12. b)	Yes		No		
b) The video was an important part of the training.	1	2	3	4	5
PART B					
a) Does anyone in your family have a heart problem?	Yes	No	Unsure		
b) Have you ever witnessed anyone having a heart attack in real life?	Yes	No	Unsure		
c) Have you spoken with your parents or guardian about any of the information you learned in the CPR & AED course?	Yes	No	Unsure		
d) Would you like the CPR & AED course to provide additional heart health information for you and your family?	Yes	No	Unsure		
f) As a result of taking the CPR & AED program, are you considering making any changes to your lifestyle to become more "heart healthy"?	Yes	No	Unsure		
If you have answered "yes," what "heart healthy" lifestyle changes are you considering making?					

g) We are interested in knowing what you think the value is of learning CPR & AED. Please write your comments below.					

Date: _____ School: _____ Grade Level: _____ Male Female

For Office Use Only:

School Board/Division: _____

School: _____ Community: _____



Saving people—Touching lives

**HIGH SCHOOL CPR & AED PROGRAM
School-Based Model for Teachers**

**APPENDIX E
Teaching Tips**

TEACHING TIPS

GENERAL

Preparation

CPR and AED are usually taught in the gymnasium. If not available, teachers sometimes use the drama room, stage, weight room or other venue. It is important to use gym mats or ensure the floor is carpeted, or have blankets or knee pads available to protect the students' knees during practice.

- Consider assembling mannequins ahead of time or involve students in assembling them before practice.
- Remember to ask students to remove gum, lipstick and lip balm before breathing into mannequins and to wash hands.
- If students are sharing mannequins, show them how to use the mannequin face shields or alcohol swabs for disinfection.
- Make sure the AED training units are ready to go and the batteries are functioning.
- If you are having trouble assembling mannequins, installing lung bags in mannequins or using your AED training units, don't be afraid to reach out to your local CPR or first aid training agency for help. Contact ACT Foundation if you need a referral.

Managing a large class

- A student/mannequin ratio of 1:1 is especially important to keep all students busy and to avoid students from becoming bored and disrupting others.
- An assembly line approach for the initial demonstration of CPR and AED can be effective (e.g. in rows or in a semi circle to provide maximum visibility). The students should be positioned on the opposite side of the mannequin from the instructor so that the instructor can see all the students and vice versa. The initial demonstration and practice can be followed with breaking up into small groups for further practice with mannequins.
- Teachers have suggested that students are sometimes more comfortable in practicing the skill of CPR in a small group setting vs. the large group setting where they are the focus of more attention. Also, in large groups, students who may not want to practice can go unnoticed.
- During sequential practice, the teacher can talk the class through the rescue, describing each practical step using "how-to" language until the students are performing the skill correctly. The teacher can describe the result of each action before proceeding to the next step. This continues from finding the victim through to handing the victim over to local Emergency Medical Service (EMS) personnel. Encourage students to say steps out loud.
- The initial demonstration and first practice session ALWAYS need a substantial amount of direction from the teacher to ensure accurate performance of skills and to boost confidence.
- As the course progresses and several skills have been practiced in a group setting, teachers can gradually give less direction to the group to get them to perform the rescue independently.
- Using teaching assistants in the small group practice sessions, or having students work in pairs where they can coach and evaluate each other can be effective.
- *Note: It is important to give students lots of practice time to ensure accuracy and confidence in their skills performance.*

Teaching assistants

- Given the large class sizes, help is especially important.
- Consider using assistant trainers such as leadership students, senior students and co-op students, or parents who have prior CPR and AED training.
- Break up the class into small groups for the practical sessions with an assistant for each group, or have assistants move from group to group.
- The teacher might consider approaching paramedics or fire fighters in the community who might be willing to volunteer some time and help teach CPR and AED.

Peer teaching

- The CPR agency responsible for teacher training should designate a mentor CPR and AED instructor to peer teach with the high school teacher in the classroom during one of the practical sessions following the initial teacher training.

TIPS FOR DEALING WITH...

Different learning styles

- All students learn differently. Therefore, it is important to have different teaching strategies to adapt to different learning styles. Teachers are encouraged to ensure a balanced use of all available resources (i.e. verbal explanations, visual aids including graphics, training video, etc.), and hands-on demonstrations, as well as adequate practice time.

Not landmarking correctly

- Some mannequins have black marks identifying the spot for compressions and students often shortcut to the black mark without landmarking.
- As landmarking is the basis for proper compressions, teachers should stress the importance of proper landmarking and have them landmark repeatedly with supervision. Students might also try to find the landmark on a peer (WITHOUT PERFORMING COMPRESSIONS).

Mnemonics

In large group scenarios where the whole class is watching, students are often shy about calling out instructions regarding the 911 call, or counting out loud for compressions (e.g. “1 and 2 and...”). Teachers have suggested that in smaller groups students are more inclined to voice the mnemonics since everyone else in the room is doing the same and they are no longer the sole focus of everyone’s attention.

Lack of motivation

- Small group training allows a more focused approach to stimulating interest, which is especially helpful in dealing with students who may lack maturity or motivation.
- The use of senior students (whom younger students may look up to as role models) and of firefighters and paramedics are often successful strategies in promoting interest.

Disease transmission/injury

- The CPR agency responsible for teacher training will address your questions related to disease transmission during the Teacher Training Workshop. Keep in mind that 8 out of 10 prehospital cardiac arrests from heart attack occur at home. Therefore, rescuers will likely know the person who needs help and their health history. Barrier devices (mouth shields) are available. See ACT website (www.actfoundation.ca) for order information.
- Students may be afraid they will hurt a person by doing CPR or using an AED. It is important to emphasize that CPR and AED should only be performed on a person who is in cardiac arrest. They can be no worse off.

EVALUATION TIPS

- If the student can access 911, provide the CAB-D of CPR in a competent manner and operate the AED he/she should “pass.”

Evaluation

- Evaluation is best conducted throughout the course to avoid a formal and anxious session at the end.
- Timely feedback on performance throughout the course will allow the student to evaluate his/her performance and improve with practice, with peer assistance, and with review of the ACT Student Manual (see Appendix J).
- A checklist may be a helpful guideline for teachers and teaching assistants.
- Evaluate by looking at the “big picture” (i.e. Did student perform rescue in a reasonable and safe manner?).
- If a student does not complete a course or misses much of the unit, they should be given an opportunity to make up for lost time or to take the course with another class.

MANNEQUIN ISSUES

The following cleaning tips were compiled with input from Ottawa high school teachers experienced in delivering the CPR and AED course to their students, and the St. John Ambulance, Federal District. These tips do not attempt to teach the process of cleaning mannequins, which is covered in the Teacher Training Program by the CPR agency. Tips are meant to facilitate and ease the cleaning process in the school environment. Remember to ask students to remove any lipstick, gum, etc., before breathing into mannequins. Ink is hard to clean off as well!

Location for cleaning

- Need easy access to source of water and drainage.
- Usually done in a large room (e.g. shower, washroom, lunchroom, health room, kitchen, custodian's room).
- Best if done over cement floors with drainage.
- Ensure adequate storage area for air drying (e.g. shelves, benches, drying racks).
- Plan location ahead of time so assistant teachers or student volunteers can start working right away.
- Some teachers submerge mannequin heads in a bathtub or shower.

Using assistants

- Assistance for cleaning is often found among student teachers, student volunteers (e.g. with spare periods), senior students, leadership students, and any other students who can acquire volunteer or leadership hours.
- In some schools, teachers clean their own mannequins. In others, the teaching staff works cooperatively to establish the most efficient method.

Supplies/materials used

- One or two large garbage pails on wheels, plastic tubs (large enough to hold 10 heads and with a plug in the bottom to facilitate drainage), basins, large plastic pails (some schools install a spigot in the bottom of a pail which can be removed for drainage).
- Useful materials include: alcohol wipes, bleach, gauze wipes, scouring pads, disposable/rubber gloves, aprons, measuring cups, dish detergent, garbage bags, paper towels, towels, etc.




Protection for clothes and cleaning surfaces

- Since bleach is involved, protection for eyes, skin and clothing is important.
- In some schools, teachers and students use supplies from the Science Department (e.g. lab coats, latex gloves).
- Old clothes and aprons are also worn.

MANNEQUIN USE AND STORAGE TIPS

Note: Visit the teachers' section on ACT's website (www.actfoundation.ca) for more teaching tools and resources such as sample quizzes, emergency scenarios and teaching tips.

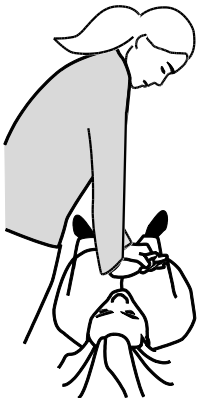



ACT High School CPR & AED Program Adult One Rescuer CPR & AED (Module 5a & 5b) - Sequential Practice Teaching Points	
Rescue Steps/Actions	Teaching Points
<p>History of the incident, for example:</p> <p>You go to the principal's office at your school after class to pick up a reference letter for a job at a summer camp. You find the principal on the floor next to his desk. It looks like he slid to the floor from his chair. He is pale and not moving. You notice that your reference letter is on his desk, neatly typed but not yet signed. You really need this summer job!</p> <p>His secretary is in the office next door.</p>	<p>Describe the history of the incident to set the scene. The incident should be relevant to the everyday lives of the students.</p> <p>The victim is:</p> <ul style="list-style-type: none"> ▪ Lying face up on the floor. ▪ Not moving. ▪ The scene does not suggest any head or neck injury.
<p>Bystander Effect:</p> <p>Although people may feel comfort and safety at having others around during an emergency, the very presence of others can make it less likely that a person may help. This behaviour, called the "bystander effect," reflects the belief that someone else will take action.</p> <p>The bystander effect may impact your ability to perform CPR by creating doubt, thereby reducing the motivation needed to remain focused, and retrieve and use the skills you have learned. The decision to initiate CPR must be based on your own assessment of the situation and the confidence you have in your training, rather than searching for approval of others who may be at the scene.</p> <p>Remember, say to yourself "I've been trained. I can do this."™</p>	<p>Tell students:</p> <p>Lots of people stand around in an emergency waiting for someone else to do something, hopefully someone trained and capable. Hey! ... that is me! Focus. "I've been trained. I can do this."™ Say something. Do something. Act now! Others will help.</p>
<p>1. Check for hazards. Make sure there is nothing around that can hurt you (e.g. electric wires, traffic, fire, glass, gas).</p> <p>Tell students that the area is safe.</p>	<p>Tell students to verbally and physically act out checking for hazards, e.g.</p> <ul style="list-style-type: none"> ▪ Students look up, down, left and right. ▪ Students walk around the victim, looking for dangers. ▪ Students say out loud, "There's no wire, no fire, no gas, no glass" or "I'm looking around, it's safe." <p>Explain that if you get hurt, you can't help the person.</p> <p>It's important for teachers to see students verbally and physically check for hazards, because you can't hear or see what students are thinking, only what they say and do.</p> <p>Students will remember more of what they "say and do" than what they only "do" or "say."</p>

ACT High School CPR & AED Program	
Adult One Rescuer CPR & AED (Module 5a & 5b) - Sequential Practice Teaching Points	
Rescue Steps/Actions	Teaching Points
<p>2. Assess Responsiveness and check for breathing. Tap shoulders, call out to the person. Look at the face and chest for signs of breathing.</p> <div style="text-align: center;">  </div> <p>Tell students there is no response to tapping the shoulders and shouting in both ears. The person is unresponsive and not breathing.</p> <p>Tell students that when you are checking an unconscious person for breathing, the person might suddenly take a breath or two – a sort of gasp or sigh. Sometimes this happens, especially if the person's heart has just stopped. It will not look like normal breathing. The person is in cardiac arrest.</p>	<p>Tell students as they approach the person to identify themselves and offer to help:</p> <ul style="list-style-type: none"> ▪ "Hi, my name's Michael. I know CPR. Can I help you?" <p>Explain to the students that if the person does not respond, they have 'implied consent'. Tell them to give the person whatever help they are trained to give.</p> <p>Tell students to kneel down at the person's head, place their hands on both of the person's shoulders, and then tap the shoulders gently while shouting in both ears:</p> <p><i>Are you Ok? Wake up! Can you hear me? What's the matter?</i></p> <p>Hearing is the last sense to leave when we go unconscious, so tell students to shout in both ears. Briefly check breathing while looking at the face and chest.</p>
<p>3. Call 911 or your local EMS, or have someone call for you. Send someone to get an AED.</p> <p>Tell students the bystander has gone to call 911 and to get an AED.</p>	<p>Tell students to call 911 or send a bystander (if present) to call 911. Have them repeat after you:</p> <ul style="list-style-type: none"> ▪ You in the blue shirt. ▪ Call 911. ▪ Ask for an ambulance. ▪ We have an unresponsive adult. ▪ Come back after you make the call. ▪ Get the defibrillator/AED/shock box quickly (if there is one in the building).
<p>4. Landmark for chest compressions.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Place the heel of your hand on the breastbone in the centre of the chest between the nipples. Place the heel of your second hand on top of the first so that your hands are overlapping and parallel.</p> </div> <div style="text-align: center;">  <p>Interlock your fingers off the chest. Position your shoulders directly above the heels of your hands. Keep your arms straight, with your elbows locked in position. Compress straight down on the breastbone.</p> </div> </div> <p>If students can use another landmarking technique effectively, they do not have to landmark using the exact technique described here.</p> <p>Tell students they are now in position to perform chest compressions.</p>	<p>Tell students:</p> <ul style="list-style-type: none"> ▪ Locate the lower half of the person's breastbone in the centre of the chest, between the nipples. ▪ Place the heel of your hand on the breastbone in the centre of the chest between the nipples. Place the heel of your second hand on top of the first so that your hands are overlapping and parallel. ▪ Interlock your fingers off the chest. Position your shoulders directly above the heels of your hands. Keep your arms straight, with your elbows locked in position. ▪ Compress straight down on the breastbone.



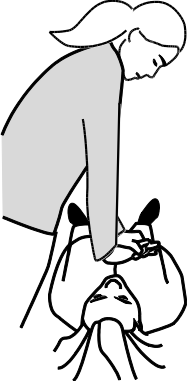

ACT High School CPR & AED Program

Adult One Rescuer CPR & AED (Module 5a & 5b) - Sequential Practice Teaching Points

Rescue Steps/Actions	Teaching Points
<p>5. Give chest compressions.</p>  <p>If you are teaching 'Compression-Only CPR': Have students practice continuous chest compressions and proceed directly to Step 8.</p> <p>Note: It is important to give students lots of practice time!</p>	<p>Tell students:</p> <ul style="list-style-type: none"> ▪ Give chest compressions. The ideal rate is of 100-120 compressions in 1 minute. Note: Consider using a metronome or have students buddy up with one another and have one count the other's compressions so they can get a feel for the rate of 100 compressions per minute. ▪ Compress straight down on the breastbone. ▪ Compress at least 5 cm (2 inches) at a rate of at 100-120 compressions per minute (e.g. 5 compressions in 3 seconds). ▪ Push hard. Push fast. ▪ It helps if you count aloud (e.g. 1 and 2 and 3 and 4 and 5 and 1 and 2 and 3 and 4 and 10 and 1 and 2 and 3 and 4 and 15 and etc. on up to 30). ▪ Without losing contact with the chest, allow the chest to return to its normal position between compressions.
<p> If you are teaching the 'Compression-Only CPR' course, skip steps 6 and 7, and continue from step 5 directly to step 8.</p>	
<p>6. Open the airway using the head-tilt chin-lift method.</p>  <p>Tell students the head is in the proper position.</p>	<p>Tell students to:</p> <ul style="list-style-type: none"> ▪ Place the hand close to the person's head (the "head" hand) on the forehead just above the eyebrows and tilt the head backwards. ▪ Place two fingers of the hand close to the feet (the "foot" hand) under the bony part of the chin and lift the chin upwards. <p>The angle of the jaw should be pointing straight up to the ceiling, and the chin should be as high off the ground as the nose.</p> <p>In an unconscious person, all the muscles relax, and the tongue can fall back and block the air passage. The head-tilt chin-lift method is intended to clear the tongue from the airway.</p>
<p>7. Give 2 breaths.</p>  <p>Tell students the air is going in and the chest is rising.</p> <p>Tell students to continue CPR at a rate of 30 compressions to 2 breaths until someone brings an AED, or they see signs of life, breathing, movement or EMS personnel take over.</p>	<p>Tell students:</p> <ul style="list-style-type: none"> ▪ Maintain the head-tilt chin-lift. Pinch the person's nose, take a normal breath and cover his mouth with your mouth (ensuring a good seal at the nose and mouth). ▪ Give 2 breaths, 1 second for each breath. Watch the person's chest to make sure it rises and falls with each of your breaths. ▪ The force of breathing in should be just enough to make the chest rise. Too much air could cause air in the stomach and vomiting. ▪ If your breaths do not go in, reposition the head to open the airway, check your seals at the mouth and nose, and try again. ▪ You can use a pocket mask or face shield if they are available. Show students how to open the airway and get an effective seal with these barrier breathing devices at some point during practice.

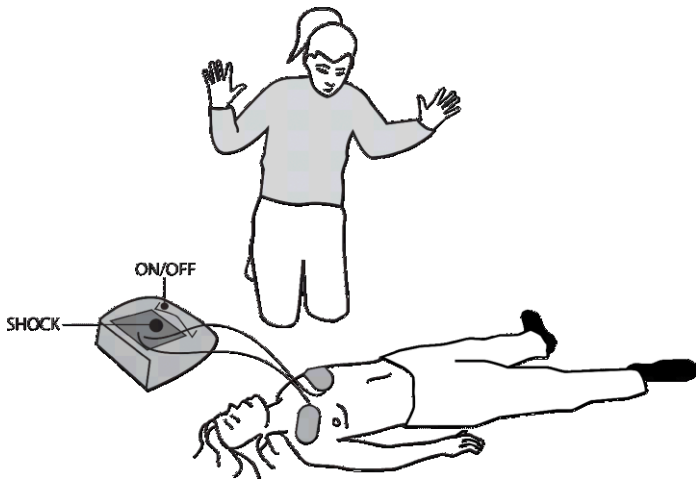
ACT High School CPR & AED Program

Adult One Rescuer CPR & AED (Module 5a & 5b) - Sequential Practice Teaching Points

Rescue Steps/Actions	Teaching Points
<p>8. Continue CPR until help arrives.</p> <div style="text-align: center;">  </div> <p>Tell students that local paramedics and firefighters have arrived on scene.</p>	<p>Tell students to continue CPR until:</p> <ul style="list-style-type: none"> ▪ Someone brings an AED, ▪ You see signs of life, breathing or movement or ▪ Emergency Medical Service (EMS) personnel take over. <p>Reassure students that most people in an emergency are able to perform CPR until the local EMS arrives. Even if it isn't perfect, it's still giving the person the best chance of survival.</p>
<p>STOP If you are teaching <u>CPR only</u> and <u>NOT</u> how to use an AED, skip steps 9 and 10 and continue to step 11.</p>	
<p>9. If there is an AED, tell students to turn on the AED and follow the voice prompts.</p> <div style="text-align: center;">  </div>	<p>Tell students:</p> <ul style="list-style-type: none"> ▪ To use bystanders so that CPR is continued while the AED is being retrieved. ▪ Ensure proper position of the AED and the person. The AED should always be placed beside the rescuer near the person's head. This avoids having to reach over the patient while pressing the shock button and gives the rescuer a clear view of the person's body to ensure bystanders are not in danger while shocking. ▪ Emphasize that the AED should be turned on as soon as possible to begin prompts (even though you may leave the AED training unit off at the beginning so students can hear you) ▪ Explain the need to expose the person's bare chest, dry the chest and shave any excess hair before applying AED pads. Note: There is an AED response kit with each AED that contains a cloth, razor and scissors. <p>Demonstrate proper pad placement by laying the pads down, holding in place, then ripping the back off. Let students know that different AEDs will have different pad but regardless, the pads will have a clear diagram and instructions for pad placement.</p>

ACT High School CPR & AED Program

Adult One Rescuer CPR & AED (Module 5a & 5b) - Sequential Practice Teaching Points

Rescue Steps/Actions	Teaching Points
<p>10. Tell students before pressing the shock button on the AED to make sure everyone is clear.</p> 	<p>Tell students:</p> <ul style="list-style-type: none"> ▪ The importance of NO ONE touching the patient while the AED is analyzing or when a shock is being delivered. <p>Steps to Safely Shock:</p> <ul style="list-style-type: none"> ▪ Student stops CPR and alerts bystanders to “Stand clear!” as the AED analyzes the heart rhythm. ▪ If the AED advises a shock, student looks to see if he/she is clear. ▪ If clear, says “I’m clear!” ▪ Student looks to see if all bystanders are clear. ▪ If clear, says “You’re clear!” ▪ Student looks one final time to ensure he/she and all bystanders are clear. ▪ If clear, says “Everyone’s clear!” ▪ While looking at the person (to ensure all is still clear), student presses the flashing “shock” button. <p>Summarize the steps to use an AED as: Call 911 and tell someone to get an AED ASAP; Start CPR; Turn on AED and follow prompts; and be safe!</p>
<p>11. Hand over the person to the EMS professionals.</p> <p>The person will now receive Advanced Care, either at the scene or in the hospital emergency department. The person has a much better chance of survival because you got involved and did your best.</p> <p>Wrapping up the scenario: The principal regained consciousness. After checking his vital signs, the paramedics put your reference letter on their clipboard, and the principal signed it. Then they took him to the hospital.</p> <p>Phew!! You helped save his life, AND you got your reference letter!</p>	<p>Students will often be asked to continue rescue efforts for another 1-2 minutes while the paramedics set up their gear (like the defibrillator and oxygen).</p> <p>Tell students to follow the professional’s instructions and help them if they are asked to.</p> <p>It helps to give a short verbal report which answers the following questions:</p> <ul style="list-style-type: none"> ▪ What happened? ▪ What was wrong with the person? ▪ What first aid have you given? ▪ Have there been any changes in the victim’s condition? <p>Tell students that rescuers often experience Critical Incident Stress (emotional, physical, and mental symptoms of stress in the rescuer) after a life-threatening emergency. This is normal. Explain, however, that when the rescue is over students may find it helpful to speak to a guidance counselor or another designated support person about what happened.</p>



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**HIGH SCHOOL CPR & AED PROGRAM
School-Based Model for Teachers**

APPENDIX F

**ACT Awards Program
Nomination Form**

ACT AWARDS PROGRAM

Nomination Form

Would you like ACT to honour one of your students with an award? Nominating is quick and easy, and ACT awards give recognition to students for their hard work and look great on resumes!

ACT AWARD CATEGORIES

Rescue Award: This award is given to students *and* teachers who have used any of the skills learned through the ACT Program. Examples may include calling 911, doing scene control, performing the Heimlich Maneuvre, performing CPR or using an AED. Even if the rescue attempt is unsuccessful, we still like to honour the students' courage and ability to react.

Leadership ACTION Award: This award is given to students who demonstrate leadership in CPR and AED course. Examples may include helping to teach CPR in the classroom, participating in a school emergency action team, bringing home the message of the importance of CPR and AEDs, teaching CPR to family and friends, or promoting CPR.

Hands of ACTION Award: This award is given to students who provide general classroom help to teachers. Examples may include cleaning mannequins or helping with classroom setup/take down.

NOMINATING IS EASY! Just send an email to act@actfoundation.ca with the subject line "Student Award Nomination" and provide the following information for each student:

- **Award category**
- **Student name**
- **School and school board**
- **City/town/province**
- **Details describing why student deserves award**
- **The best way for ACT to contact you and the student**

Winners Receive...

Winners will receive an ACT certificate and will be featured on the ACT website and in select issues of the ACT e-Newsletter. ACT can also assist the school in recognizing the student in the school's newsletter, on the school's website, and/or at a school event (e.g. assembly).





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**HIGH SCHOOL CPR & AED PROGRAM
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APPENDIX G

**Teacher Refresher
Training Program - Guidelines**



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ACT High School CPR & AED Program

TEACHER TRAINING PROGRAM: ONE-DAY TEACHER TRAINING WORKSHOP

Guidelines for Initial Teacher Training and Refresher Training

ACT HIGH SCHOOL CPR & AED PROGRAM - OVERVIEW

The goal of the ACT High School CPR & AED Program is to ensure that all youth graduate from high school with the skills and knowledge to save lives by having been trained in the 4 Rs of CPR and how to use an Automated External Defibrillator (AED).

The 4 Rs of CPR are:

Risk: risk factor education for cardiovascular disease and health and wellness education;

Recognize: how to recognize the signs of a developing medical emergency;

React: the importance of calling 911 quickly and what to do until the ambulance arrives;

Resuscitate: CPR, how to use an AED, and the Obstructed Airway Manoeuvre.

The ACT Foundation rallies the support of community partners and fundraises for the start-up resources that schools need to set up the program (e.g. mannequins, defibrillator training units, teacher training and materials), and guides schools in implementing a long-term and self-sustaining program. High school teachers teach the CPR & AED Program to their students as a regular part of the curriculum. Since the ACT Foundation began the high school CPR initiative as a pilot in Ottawa in 1994, more than 3.6 million students have been trained in CPR in more than 1,755 high schools across Canada.

TEACHER TRAINING PROGRAM: ONE-DAY WORKSHOP GUIDELINES

The Teacher Training Program prepares teachers to teach both the Heartsaver Level CPR and AED course, and the Compression-Only CPR and AED course to students. The CPR agency that provides the initial Teacher Training Workshop is encouraged to act as a long-term “mentor” for teachers in the ACT High School CPR & AED Program. The Teacher Training Program builds on the success of the original Ottawa program. It was developed by the ACT Foundation with guidance from CPR Instructor Trainers from St. John Ambulance, the Heart & Stroke Foundation, the Red Cross, and other agencies, high school teachers and school board curriculum consultants. High school teachers interested in extending their CPR instructor qualifications to teach beyond the school program and more extensively in the community should consult their local CPR agency for details on additional training requirements.

This program will provide teachers with a Heartsaver Level CPR and AED certification, along with teaching tools and resources to teach CPR and how to use an AED to students. The content takes into account the teaching expertise of high school teachers and is designed to prepare teachers for delivery of the ACT High School CPR & AED Program in the school environment.

OBJECTIVES – NEW TEACHERS

Objective #1: Teach teachers Heartsaver Level CPR and how to use an AED.

Objective #2: Teach teachers strategies for teaching and evaluating students in Heartsaver CPR and how to use an AED, as well as the Compression-Only CPR and how to use an AED.



By the end of the One-Day Teacher Training Workshop:

1. Teachers will understand the features of the ACT High School CPR & AED Program (e.g. high school teachers teach CPR and AED to students; start-up resources - mannequins, defibrillator training units, teacher training and materials - are donated by community partners; schools own the program and maintain it over the long term).
2. Teachers will understand the concept of the “4Rs of CPR” and the Chain of Survival and will be able to effectively teach this portion of the course to high school students.
3. Teachers will be familiar with program delivery issues and teaching strategies, including teaching CPR and how to use a defibrillator to a class of 30-35 students; using assistants; teaching students who have difficulty learning; and the use of scenarios, etc.
4. Teachers will be familiar with the program materials and resources available and how to access them (e.g. ACT High School CPR Student Manual (free), ACT School-Based Model for Teachers (free), ACT PowerPoint presentation (free), ACT High School CPR & AED Training Video, audiovisual aids, etc.
5. Teachers will be able to clean/decontaminate mannequins according to approved guidelines presented by the CPR agency.
6. Teachers will be able to use the AED training units to teach students.
7. Teachers will understand and be able to respond to common questions concerning liability, disease transmission, etc.
8. Teachers will receive the training and tools necessary to evaluate students’ ability to perform CPR (i.e.: sample quizzes, checklists etc.).
9. Teachers will become familiar with expectations regarding refresher training and updates, and reporting of rescues to the ACT Foundation.

OBJECTIVES – REFRESHER TRAINING

Objective #1: Review with teachers Heartsaver Level CPR and how to use an AED. Ensure teachers receive new information and updates on guidelines/protocols as available.

Objective #2: Discuss with teachers strategies for teaching and evaluating students in CPR and how to use an AED. Discuss any teaching tips, recommendations or challenges teachers have experienced while teaching students. Ensure teachers are comfortable teaching CPR and AED effectively to their students.

FREQUENCY AND WHO ORGANIZES - TEACHER TRAINING REFRESHER

- Teacher training refreshers are needed **every three years** to review skills and knowledge and learn of guideline updates.
- Schools are responsible to make arrangements directly with their local teacher training agency for training of new teachers and refresher training for those who have already taken the initial training set up by the ACT Foundation.

CPR AGENCY ROLE AND LONG-TERM SUPPORT

The CPR agency provides a long-term support role for high school teachers following the Teacher Training Workshop (e.g. providing new information, guideline updates, availability of designated liaison for “hotline” assistance and advice, and contacting schools on an as-needed basis to ensure refresher-training needs are met). Following the Teacher Training Workshop, the CPR agency should send an instructor into the classroom for a peer teaching session with high school teachers if requested, during one of the initial practical sessions with students.

The refresher workshops should be arranged directly by and between the school/school board and their local CPR agency. The CPR agency should keep a roster of teachers who participate in the Teacher Training Program and notify the school/school board and the teachers when they are due for their three-year refresher update. Schools/school boards and teachers are responsible for ensuring three-year updates are maintained.

The CPR agency will provide Teacher Training Workshops at the request of the school/school board for new teachers over time.

CPR INSTRUCTOR/STUDENT RATIO

Heartsaver Level CPR and AED Course: Morning

- Taught by a CPR Instructor Trainer or a CPR Instructor.
- Minimum 1:12 (another CPR Instructor Trainer/CPR Instructor should be added when the number of high school teachers is more than 12).

Teacher Training Workshop: Afternoon

- Taught by a CPR Instructor Trainer.
- Minimum 1:15 (another Instructor Trainer should be added when the number of high school teachers is more than 15).

Note: A CPR Instructor may teach the Level A CPR and AED (taught in the morning). A CPR Instructor Trainer delivers the Teacher Training Workshop (afternoon).

LENGTH AND VENUE

- One-day workshop.
- Usually held at a venue arranged by the schools/school board.

SCHEDULING

The one-day workshop is often held during exam time to avoid the extra expense to schools of supply teachers. It is also sometimes held on a professional development day or as an after-hours workshop.

COST

One-Day Workshop: to be determined.

PROGRAM MATERIALS

Provided by ACT:

- ACT School-Based Model (provided by the ACT Foundation, the School-Based Model (SBM) has been designed specifically for high school teachers and complements the ACT Student Manual: Appendix J, SBM).
- ACT Student Manual (Appendix J, SBM).
- ACT High School CPR & AED Training Video (available on ACT's website: www.actfoundation.ca and on DVD).
- ACT teacher certificate (sent post workshop).

Provided by agency:

- Heartsaver Level CPR and AED certificate.

CERTIFICATION

Heartsaver Level CPR and AED Course (Morning): Standard Heartsaver Level CPR and AED course certificate is provided by the CPR agency/instructor for each high school teacher.

Teacher Training Session (Afternoon): ACT High School CPR & AED Program teacher certificates will be mailed by ACT to the Instructor Trainer post workshop with stamped, addressed envelopes for each teacher's school. The Instructor Trainer signs and mails the certificates. The CPR agency's name appears on the certificate.

FREQUENTLY ASKED QUESTIONS

Q. Does a teacher who is already trained in Level A CPR and AED need to take it again or can they just attend the Teacher Training Session in the afternoon?

A. Many physical and health education teachers will have learned CPR at some point in the past. Given issues surrounding skill retention and guideline/protocol updates, CPR agencies recommend that all teachers attend the Level A course taught in the morning. The course will act as a refresher for those previously trained, in preparation for the Teacher Training Session in the afternoon.

Q. Does a teacher who is already a current, certified CPR and AED Instructor or Instructor Trainer need to attend any portion of the Teacher Training Workshop?

A. A teacher who is a current, certified CPR and AED Instructor or Instructor Trainer must provide a copy of their certification to the teacher training agency, who will decide if attending the morning Heartsaver Level course is required. All teachers, regardless of the level of past CPR and AED training and current certification must attend the Teacher Training Session in the afternoon. This portion is modified from the standard CPR agency Instructor Trainer program and addresses issues relating to the school program and environment. Teachers who are already certified CPR Instructors/Instructor Trainers can also enhance the session with their expertise.

Q. Could a teacher who has not taught the program for a lengthy period of time (e.g. six months) continue teaching the program without taking a teacher training workshop?

A. In cases where a teacher receives their initial Teacher Training Workshop but then does not teach for a lengthy period of time (i.e. six months), they should make arrangements with a training agency to have their skills evaluated prior to teaching CPR & AED. This also applies to teachers teaching the program only once per year.

Q. Could a teacher who has not taught a minimum of two CPR & AED courses in one year continue teaching the program without taking a teacher training workshop?

A. Teachers who have attended the Teacher Training Workshop but have not taught a minimum of two CPR & AED courses in one year should team teach with an active instructor to refresh their CPR & AED teaching skills, or attend a refresher workshop prior to teaching again.

Note: The initial Teacher Training Workshop and the Refresher Training are given by CPR agencies such as St. John Ambulance, the Heart and Stroke Foundation, the Canadian Red Cross, EMS agencies, and community CPR agencies. Schools are encouraged to use these agencies as resources for training questions/issues teachers may have throughout the year.

For further information contact ACT: ACT Foundation, 379 Holland Avenue, Ottawa, Ontario, K1Y 0Y9; Tel: 1-800-465-9111, (613) 729-3455; E-mail: act@actfoundation.ca; website: www.actfoundation.ca



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School-Based Model for Teachers**

APPENDIX H

**Mannequin & AED Training Unit
Information**

MANNEQUIN & AED TRAINING UNIT INFORMATION

Mannequin Information:

Important: Ratio of 1 mannequin per student.

It is important to ensure you choose a mannequin that meets the needs of your school. The following information will guide you in making your mannequin purchase decision.

Several important points to consider as guidelines regarding the CPR mannequin purchase include:

1. **Budget and cost to allow for the 1:1 student/mannequin ratio:** One of the key features of the program is that each student has a mannequin to practice on. Therefore, schools with an average class size of 30 students require a set of 30 mannequins. Ask vendors:
 - For the discounted price available to high schools;
 - To describe any package pricing identifying what items are included;
 - About usual ongoing costs (i.e. lung bags);
 - About the expiry date for any quoted figures.
2. **Portability:** Size and weight of mannequin, storage bag, easy to carry? Storage space required? Setup, take down time, physical requirements to do this?
3. **Durability:** Expected life span of mannequin.
4. **Maintenance, repair requirements and resources:**
 - Type of repairs generally required. How often?
 - Price of replacement parts?
 - Serviced locally? How quickly?
 - Easy to clean?
 - Recommended cleaning procedures and time requirements?
 - Do they come with a bilingual instruction manual? (particularly for bilingual board or unilingual French board)
5. **Warranty:** Length, description.
6. **Delivery:** Length of delivery time from purchase date? Is delivery included in cost?

You may also want to ask about Canadian content in the product. Contact ACT for a list of mannequin providers or call a medical training equipment supplier near you.

For further information on how to purchase mannequins and lung bags, please contact the ACT Foundation: Tel: 1-800-465-9111, (613) 729-3455; E-mail: act@actfoundation.ca; Web site: www.actfoundation.ca

AED Training Unit Information:

For more information regarding the AED Training Units, please visit our web site: www.actfoundation.ca





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APPENDIX I

**Sample Course Outline
& Classroom Setup Options**

SAMPLE CPR & AED COURSE OUTLINE

This course outline follows the content of the ACT Student Manual (see Appendix J) and is presented in the following formats:

- A. At a Glance Overview
- B. Detailed Course Breakdown

The High School CPR & AED program offers two options for teaching adult/teen CPR. One option is the ‘Heartsaver Level CPR’ in which the CPR technique includes giving breaths. The other option is the ‘Compression-Only CPR’ in which the CPR technique does not include giving breaths. This is the only difference between the two options—everything else is the same.

Note: Content for this outline covers the “4 Rs of CPR,” including one-person adult CPR, how to use an AED and the obstructed airway manoeuvre. The course can be organized into a series of sessions according to the length of high school class periods, and delivered in consecutive sessions. While this outline reflects a three-hour timeframe, this is not a rigid protocol, but rather a flexible guideline. Some teachers may take less time.

A. At a Glance Overview

DEMONSTRATION BY TEACHER OF A CPR & AED RESPONSE	5 MINS
INTRODUCTION / LECTURE	30 MINS
<ol style="list-style-type: none"> 1. Welcome and Introduction to the CPR & AED course 2. Introduction to the “4 Rs of CPR” and the Chain of Survival 3. “The Heart and When it Breaks” 4. Non-Cardiac Emergencies 5. The “4Rs of CPR” <ul style="list-style-type: none"> - Risk - Recognize - React - Resuscitate 6. Automated External Defibrillator (AED) 	
PRACTICE: CPR & AED, AND OBSTRUCTED AIRWAY MANOEUVRE	90 MINS
<ol style="list-style-type: none"> 1. Safety 2. Assess Responsiveness, Check for breathing, Call 911 and ask someone to get an AED 3. CPR 4. AED 5. Choking <ul style="list-style-type: none"> - Adult Conscious - If the Person Becomes Unconscious - Adult Found Unconscious 6. Recovery Position 	
PRACTICE & EVALUATION: CPR & AED, AND OBSTRUCTED AIRWAY MANOEUVRE SKILLS	45 MINS
<ul style="list-style-type: none"> ▪ Continue skills practice of CPR & AED ▪ Continue skills practice of Obstructed Airway Manoeuvre ▪ Evaluation by teacher (students run through scenarios and can help evaluate each other) 	
SUMMARY	10 MINS
<ul style="list-style-type: none"> ▪ AED safety precautions ▪ Contact ACT if a student uses the skills or knowledge learned through the course 	

B. Detailed Course Breakdown

Segment Components	Teaching Material	Teaching Points	Approx Time
<p>DEMONSTRATION BY TEACHER OF A CPR & AED RESPONSE</p> <p>Teacher performs a full, captivating CPR & AED scenario to grab students' attention and stimulate interest</p>	<ul style="list-style-type: none"> ▪ CPR Mannequin ▪ AED Training Unit ▪ Emergency care scenarios ▪ ACT Video Chapter – Real Life Scenario and Introduction 	<ul style="list-style-type: none"> ▪ The purpose of the scenario is to introduce students to CPR & AED in an exciting way by showing them the end result of what they will learn throughout the course. ▪ Explain to the students beforehand that you will be showing a complete scenario and that a step-by-step demonstration will come later with practice. 	5 mins
<p>INTRODUCTION / LECTURE</p> <p>MODULE 1: Welcome and Introduction to the CPR & AED course</p> <p>Introduction to the “4 Rs of CPR” and the Chain of Survival</p> <p>“The Heart and When it Breaks”</p> <p>What is a stroke?</p> <p>Non-Cardiac Emergencies</p> <p>The “4Rs of CPR”</p> <p>MODULE 2: Risk</p> <p>MODULE 3: Recognize</p> <p>MODULE 4: React</p>	<ul style="list-style-type: none"> ▪ Pages 3-16 of the ACT Student Manual 	<p>MODULE 1: Welcome and Introduction to the CPR & AED course: Present an overview of course goals, objectives; introduction of program partners; distribution of parent information and volunteer letter. <i>(See Appendix A: Parent Information and Volunteer Letter).</i></p> <p>Introduction to the “4 Rs of CPR” and the Chain of Survival: <i>(See page 3 of the ACT Student Manual).</i> Introduce each link in the Chain of Survival and highlight where high school CPR and the student fit in the Chain of Survival.</p> <p>“The Heart and When it Breaks”: <i>(See pages 4-5 of the ACT Student Manual).</i> What is a Heart Attack? What is a Cardiac Arrest? What is CPR? What is Defibrillation?</p> <p>What is a stroke?</p> <p>Non-Cardiac Emergencies: Discuss other causes of cardiac arrest such as choking, drowning, electrocution, drug overdose, respiratory problems, anaphylaxis and trauma.</p> <p>The “4 Rs of CPR”: <i>(See pages 6-16 of the ACT Student Manual).</i></p> <p>MODULE 2: Risk: Risk factors for heart disease and stroke. Lifestyle choices <i>(See pages 6-7 of the ACT Student Manual).</i></p> <p>MODULE 3: Recognize: Signs of a heart attack and signs of a stroke <i>(See page 8 of the ACT Student Manual).</i></p> <p>MODULE 4: React: What to do if it might be a heart attack or stroke. Hazards, Holler and PLT; Visible with Information. NOTE: Discuss head, neck and back injuries “I’ve been trained. I can do this”™: Discuss the bystander effect with the students. <i>(See page 9-10 of the ACT Student Manual).</i></p>	30 mins

Segment Components	Teaching Material	Teaching Points	Approx Time
<p>MODULE 5a: Resuscitate – CPR</p> <p>MODULE 5b: Resuscitate - Automated External Defibrillator (AED)</p> <p>MODULE 5c: Resuscitate – Choking</p>	<ul style="list-style-type: none"> ▪ ACT Video Chapters – CPR – Adult ▪ ACT Video Chapter – How to use an AED ▪ ACT Video Chapters – Choking 	<p>MODULE 5a: <u>Resuscitate:</u> CPR (See pages 10-12 of the ACT Student Manual).</p> <p>MODULE 5b: Automated External Defibrillator (AED): (See page 13 of the ACT Student Manual). <u>What is an AED?</u></p> <ul style="list-style-type: none"> ▪ To minimize interruptions, tell students that a ‘special considerations/precautions’ Q&A section is in the Student Manual for their reference. AED complications are rare, and the course will focus on standard AED procedure. ▪ Emphasize that defibrillators are intended for public use and are available in many public places. Give examples in your community (e.g. arenas, community centers). <p><u>What is the purpose of an AED?</u></p> <ul style="list-style-type: none"> ▪ Explain that a defibrillator works best in conjunction with CPR. ▪ Emphasize importance of early CPR and early defibrillation and delivering the first shock as soon as possible. <p><u>When should an AED be used?</u></p> <ul style="list-style-type: none"> ▪ Emphasize that an AED should be applied to any person who is unresponsive and not breathing. ▪ Clearly outline the steps in AED use, explaining that CPR should be performed while waiting for the AED to be retrieved, and even while the pads are being applied. <p><u>How does the AED work?</u></p> <ul style="list-style-type: none"> ▪ Emphasize that the AED is designed to not shock someone in a “non-shockable” rhythm. This includes a normal beating heart and many other arrhythmias. The AED is designed to only allow a shock if the person needs it. ▪ Explain that ventricular fibrillation (VF), (a chaotic, disorganized electrical rhythm), is a common rhythm disturbance for the first few minutes after someone suffers cardiac arrest. ▪ The AED will detect VF as a “shockable” rhythm. ▪ The goal of delivering the shock is to get rid of fibrillation (this is why it’s called defibrillation). <p>MODULE 5c: <u>Resuscitate:</u> Choking (See pages 14-16 of the ACT Student Manual).</p>	


Segment Components	Teaching Material	Teaching Points	Approx Time
<p>PRACTICE: CPR & AED, AND OBSTRUCTED AIRWAY MANOEUVRE</p> <p>1. Safety</p> <p>2. Assess Responsiveness, Check for Breathing, Call 911 and ask someone to get an AED</p> <p>3. CPR</p> <p>4. AED</p>	<ul style="list-style-type: none"> ▪ Pages 10-16 of the ACT Student Manual ▪ AED Training Unit 	<p>MODULES 5a, 5b & 5c</p> <p>1. Safety: Discuss the importance of scene safety and issues around infectious diseases and the use of barrier devices. Remind students of the bystander effect and they should say to themselves “I’ve been trained. I can do this.”™</p> <p>2. Assess Responsiveness, Check for Breathing, Call 911 and ask someone to get an AED: (See page 11 of the ACT Student Manual). Teach assessing responsiveness and checking for breathing, calling 911 and asking someone to get an AED. Demonstrate with a mannequin and then have students practice skills. Have students follow entire process from scene safety through to checking for breathing.</p> <p>3. CPR: (See pages 11-12 of the ACT Student Manual). Discuss CPR, when and why it is needed. Demonstrate landmarking for chest compressions on mannequin. Teach CPR skill and have students practice all components from scene safety to the full CPR skill on a mannequin. <i>*Note if you are teaching the ‘Compression-Only CPR’ course, leave out the giving breaths part as described in the Student Manual and teach continuous chest compressions.</i></p> <p>4. AED: (See page 13 of the ACT Student Manual).</p> <ul style="list-style-type: none"> ▪ Use a mannequin and AED training unit to show AED demo. ▪ Mention the use of bystanders so that CPR is continued while the AED is being retrieved. ▪ Ensure clear demonstration of proper position of the AED and the person. The AED should be placed beside the rescuer near the person’s head. This avoids having to reach over the person while pressing the shock button and gives the rescuer a clear view of the person’s body to ensure bystanders are not in danger while shocking. ▪ Emphasize that the AED should be turned on as soon as possible to begin prompts (even though you may leave the AED Training unit off at the beginning so students can hear you) ▪ Explain the need to expose the person’s bare chest, dry the chest and shave any excess hair before applying AED pads. Note: There is an AED response kit with each AED that contains a cloth, razor and scissors. ▪ Demonstrate laying the pads down, holding in place, then ripping the back off. Let students know that different AEDs will have different pads but regardless, the pads will have a clear diagram and instructions for pad placement. ▪ Stress the importance of NO ONE touching the patient while the AED is analyzing or when a shock is being delivered. 	90 mins

Segment Components	Teaching Material	Teaching Points	Approx Time
<p>4. AED cont'</p> <p>5. Choking</p> <ul style="list-style-type: none"> - Adult Conscious - If the Person Becomes Unconscious - Adult Found Unconscious <p>6. Recovery Position</p>	<p>Pages 14-16 of the ACT Student Manual</p> <ul style="list-style-type: none"> ▪ ACT Video Chapters – Choking 	<p style="text-align: center;">Steps to Safely Shock:</p> <ul style="list-style-type: none"> ✓ Student stops CPR and alerts bystanders to “Stand clear!” as the AED analyzes the heart rhythm. ✓ If the AED advises a shock, student looks to see if he/ she is clear. If clear, says “I’m clear!” ✓ Student looks to see if all bystanders are clear. If clear, says “You’re clear!” ✓ Student looks one final time to ensure he / she and all bystanders are clear. If clear, says “Everyone’s clear!” ✓ While looking at the victim (to ensure all is still clear), student presses the flashing “shock” button. <ul style="list-style-type: none"> ▪ Summarize the steps to use an AED as: Call 9-1-1 and tell someone to get an AED ASAP!; Start CPR; Turn on AED and follow prompts!; and Be safe! <p>5. Choking (obstructed airway): (See pages 14-16 of the ACT Student Manual).</p> <p>Adult Conscious: Discuss airway obstruction and choking management with emphasis on landmarking. Demonstrate with a real person and have students practice on each other. EMPHASIZE THAT THEY ARE NOT TO ACTUALLY PERFORM ABDOMINAL THRUSTS, BUT ONLY SIMULATE THEM. Be firm on this point. (See page 14 of the ACT Student Manual).</p> <p>If the Person Becomes Unconscious/Adult Found Unconscious: Discuss management of the <u>conscious becoming unconscious</u> and the <u>victim found unconscious</u>. Demonstrate and have students practice the skill on a mannequin. (See pages 15-16 of the ACT Student Manual).</p> <p>6. Recovery Position: (See page 16 of the ACT Student Manual). Discuss and demonstrate the recovery position and when to use it. Have students practice briefly on each other.</p>	
<p>PRACTICE & EVALUATION: CPR & AED, AND OBSTRUCTED AIRWAY MANOEUVRE</p> <ul style="list-style-type: none"> ▪ Continue skills practice of CPR & AED ▪ Continue skills practice of Obstructed Airway Maneuvre ▪ Evaluation by teacher (students run through scenarios and can help evaluate each other) 	<ul style="list-style-type: none"> ▪ ACT Student Manual ▪ Emergency care scenarios ▪ Student evaluation checklist ▪ AED Training Unit ▪ Classroom Setup Options 	<ul style="list-style-type: none"> ▪ Students should be in small groups of 3-5 working with an AED Training Unit. ▪ Students should be instructed to evaluate each other as “practice”, but will also be evaluated by the teacher. ▪ See ‘Classroom setup options’ for different ways to evaluate students. 	45 mins



Segment Components	Teaching Material	Teaching Points	Approx Time
<p>SUMMARY</p> <p>1. AED safety precautions</p> <p>2. Contact ACT if CPR & AED skills or knowledge are used</p>	<ul style="list-style-type: none"> ▪ ACT Video Chapter – Recap of Real Life Scenario and Closing 	<p>1. AED safety precautions Now that students are comfortable using a defibrillator and have had sufficient practice, talk to them about safety precautions and various scenarios such as a wet chest, a wet surface, etc. Also talk to them about Error Messages (e.g. “Change battery,” “Unit failed”).</p> <p>2. Contact ACT if CPR & AED skills or knowledge are used Tell students that if they ever use any of the skills or knowledge learned through their CPR & AED course, inform the teacher and please contact ACT at 1-800-465-9111 or act@actfoundation.ca with feedback on rescues involving students or teachers. (See ACT’s School-Based Model for Teachers, Appendix F, Lifesaver Awards Program – Feedback Form). For more information please visit our Web site: www.actfoundation.ca</p>	10 mins



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ACT High School CPR & AED Program

CLASSROOM SETUP OPTIONS

LEGEND

X Students

T Teacher

A Assistant

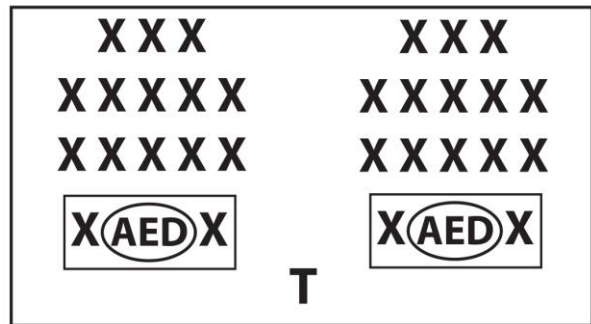
(AED) AED training unit & mannequin

The following presents some ideas for setting up your classroom for student CPR and AED practice. The aim of these options is to keep students engaged while giving them ample practice in running through the steps of CPR and how to use an AED. If you develop a classroom set up that works well for you, we'd love to hear about it! Send us an email at act@actfoundation.ca

OPTION #1: (1 Teacher)

Training equipment and materials required:

- Mannequins x 2
- AED training unit x 2
- Emergency care scenarios
- CPR & AED Skills Checklist



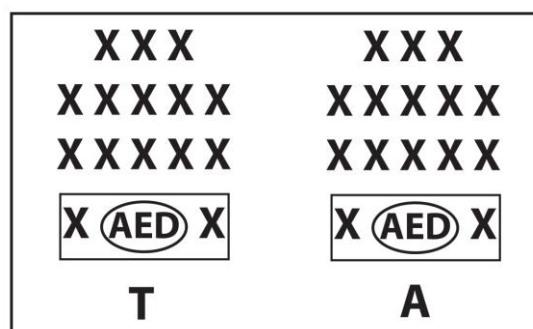
The class is divided into two groups that are positioned in a central area of the gym. Each group has a **mannequin** and an **AED training unit**. The teacher selects two students from each group to be the lead responders who leave the room for one minute. Meanwhile, the teacher selects two more students from each group to be the bystanders. The remaining students act as the crowd/evaluators. The teacher selects a scenario from **Emergency Care Scenarios** (or develops one of his/her own) and hands out the same scenario to both groups. Once the students are familiar with the scenario and their key roles to play, the teacher invites the lead responders to come back into the class. The scenario begins with the bystanders requesting help based on the scenario details. The responders go through the rescue without help from their classmates while the crowd/evaluators take notes as to what the lead responders did correctly and what they have missed, based on **CPR & AED Skills Checklist**.

After completing the CPR & AED steps, the teacher leads a discussion with all students as to what they saw and what was correct and incorrect. The teacher then selects two other lead responders and two other bystanders and begins the process again with a new scenario. The teacher continues this process until all students have had the chance to be a lead responder and a bystander.



OPTION #2: (1 Teacher and 1 Assistant)**Training equipment and materials required:**

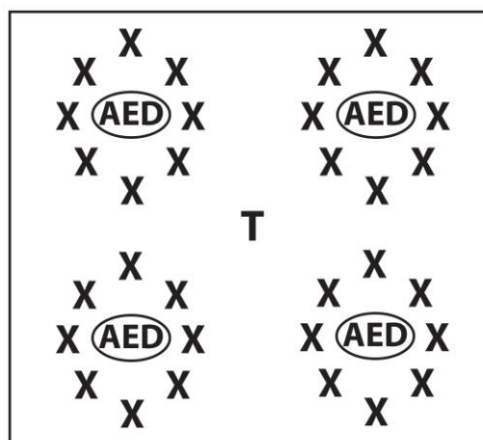
Mannequins x 2
 AED training unit x 2
 Emergency care scenarios
 CPR & AED Skills Checklist



This option runs the same as Option #1, but with the two groups running different scenarios and the assistant leading the discussion for his/her group.

OPTION #3: (1 Teacher and 1 Assistant)**Training equipment and materials required:**

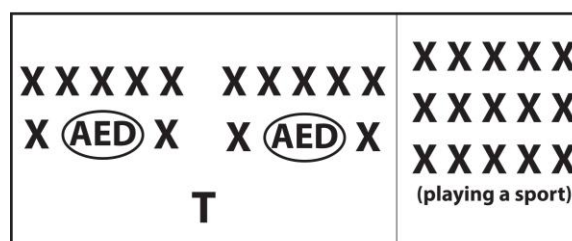
Mannequins x 4
 AED trainer with simulator x 4
 Emergency care scenarios
 CPR & AED Skills Checklist



The teacher splits the class up into small groups. The teacher selects a scenario from **Emergency Care Scenarios**. The teacher and the assistant evaluate one group at a time with **CPR & AED Skills Checklist** as they run through the scenario with the **AED training units**. Each student in the group gets the chance to be evaluated as the lead responder in the scenario. While awaiting their evaluation, the other groups of students run through the scenario.

OPTION 4: (1 Teacher and Half the Class) – GREAT FOR LARGE CLASSES!**Training equipment and materials required:**

Mannequins x 2
 AED training unit x 2
 Emergency care scenarios
 CPR & AED Skills Checklist



The teacher splits the class into two groups. One group practices a quiet sport (e.g. badminton), supervised by an assistant if possible. The teacher splits the second group into two smaller groups. Each group has a mannequin and an **AED training unit**. The groups run through scenarios from **Emergency Care Scenarios**. Each student gets a turn as the lead responder and is evaluated by the teacher using **CPR & AED Skills Checklist**. During the next gym class, the group that was playing the quiet sport receives their AED practice.



Saving people—Touching lives

**HIGH SCHOOL CPR & AED PROGRAM
School-Based Model for Teachers**

APPENDIX J

**ACT High School CPR & AED
Student Manual**

ACT High School CPR & AED

Student Manual



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HEALTH PARTNERS

AstraZeneca Canada
Sanofi Canada
Amgen Canada

HIGH SCHOOL CPR & AED STUDENT MANUAL

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Acknowledgments

The guidelines for CPR are based on guideline recommendations from the 2015 International Consensus on CPR and ECC Science with Treatment Recommendations (CoSTR).

“A healthy diet includes...” was borrowed from <https://www.heartandstroke.ca/get-healthy/healthy-eating/healthy-eating-basics> published by the Heart and Stroke Foundation of Canada. The Chain of Survival™ logo is a registered trademark of the Heart and Stroke Foundation of Canada. Illustrations of heart and lungs were reproduced with permission of St. John Ambulance, Canada.

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MODULE 1



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THE 4 “Rs” OF CPR **Hi There!**

RISK

INTRODUCTION: CHAIN OF SURVIVAL

Welcome to the world of CPR... Cardiopulmonary Resuscitation. You are going to learn how to help someone who chokes or someone whose heart stops. CPR is the “heart” of any first aid program. (Sorry for the pun).

RECOGNIZE

REACT

This CPR course teaches the 4 “Rs” of CPR:

RISK: factors in your life that predispose you to developing heart problems or a stroke;

RECOGNIZE: how to recognize a serious developing emergency;

REACT: what to do when you see a developing emergency;

RESUSCITATE: how to do CPR, how to use an AED and how to help someone who is choking.

RESUSCITATE

Why learn this? Don't paramedics look after pre-hospital cardiac arrests and other serious emergencies? Why you? Well, the key to surviving these emergencies is a chain reaction. It's the **CHAIN OF SURVIVAL**, the emergency response system we need if we are going to improve survival from emergencies:

Healthy Choices

Early Recognition

Early Access

Early CPR

Early Defibrillation

Early Advanced Care

Early Rehabilitation

Someone's life may depend on what you learn in this course. Don't forget that for a minute, but learning it will be fun too. There is a lot of information. It is wisdom you can take home to your family now, and carry with you throughout your life. So let's get into it.

Without Oxygen, Serious Damage to the Brain Starts in 4 to 6 Minutes.

Other organs, like the heart, last longer without oxygen, but only minutes longer.

Nitroglycerin

Many people take nitroglycerin spray when they get angina. It helps open up the circulation and relieves the pain.

THE HEART AND WHEN IT BREAKS

What is a Heart Attack?

Oxygen is carried by blood through a network of blood vessels, nourishing the organs of the body. Without circulating blood, without oxygen, these organs start to die.

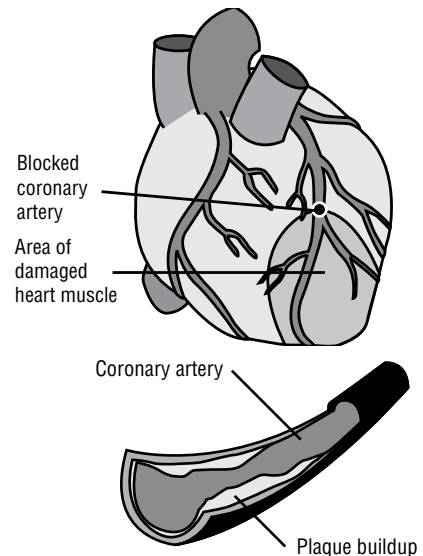
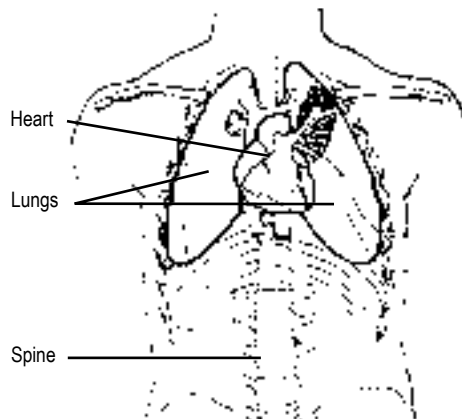
Without oxygen, serious damage to the brain starts in 4 to 6 minutes. Other organs, like the heart, last longer without oxygen, but only minutes longer.

Like any tough muscle, the heart needs oxygen delivered to its tissues.

The heart has its own blood vessels that supply its muscle. When one of these arteries gets blocked (e.g. by plaque, which is junk like fat or cholesterol) the area of heart muscle that the artery nourishes is suddenly deprived of circulation... no blood circulating, so no oxygen... the person experiences chest pain.

If the blockage opens up after a little bit, the pain goes away (until next time). This is what is called **angina**.

If the artery stays blocked, the pain remains and the area of affected heart muscle starts to die. This is what most people call a **heart attack**. (**Trivia...** doctors call this a **myocardial infarction**).



What is Cardiac Arrest?

When a heart stops beating, it is no longer pumping blood to the rest of the body. That heart is in "**cardiac arrest**."

When the heart muscle is suffering because it can't get oxygen, it gets irritable. (If you choke and can't get air, you'll get irritable too!) The heart's main muscles, the ones around the **ventricles**, lose their rhythmic pumping action and may start to **fibrillate**. This is a squirmy kind of muscle contraction that doesn't pump blood called **ventricular fibrillation** (because it is a ventricle and it is fibrillating). This most common kind of cardiac arrest is also the most treatable.

What is CPR?

Starting **Cardiopulmonary Resuscitation** on a person whose heart has stopped means two things:

1. Pushing on the person's chest forces blood to flow through the body.
2. Mouth-to-mouth breathing provides oxygen to the lungs.

What is Defibrillation?

When you call 911 and start CPR on someone, paramedics or firefighters will be there in a few minutes. They attach a small computerized device (an automated external defibrillator, otherwise known as an AED) to that person. It delivers a special kind of shock to the heart, trying to kickstart it, trying to reset the heart muscle and restore its smooth pumping action. This is called **defibrillation**... ZAP!

Defibrillation A Shocking Thing!!

When you deliver the shock and the heart stops fibrillating, you have de-fibrillated it.

WHAT IS A STROKE?

If you understand heart attacks, you can figure this out. Remember how arteries to the heart can get blocked by junk, like fat or cholesterol? The area of heart muscle that the artery nourishes suddenly receives no circulation (no blood circulating, so no oxygen) and the person experiences a heart attack.

It is the same in the brain. After a lifetime of burgers and fries, an artery gets blocked up by all that cholesterol. When the area of the brain nourished by that artery has no oxygen, it gets damaged. As a result, a person may have a sudden headache, slurred speech, vision problems or sudden weakness of the face, an arm or leg. That is a **stroke**.

Someone thought, "Hmm, if it happens in the heart and we call it a heart attack, why not call this a '**brain attack**'?"

One kind of stroke is different. Instead of getting clogged up like a usual stroke, a blood vessel bursts. You can't tell without tests at the hospital which kind of stroke it is. No matter which kind of stroke it is, you have to help in the same ways you will learn here.

That part was tough. You learned about blood circulation and oxygen, about hearts that stop when they fibrillate and start when someone defibrillates them. And you learned a little about strokes or "brain attacks".

Now you are ready to learn the 4 "Rs" of CPR. Knowing them lets you make the system move when an emergency occurs.

Let's tackle those 4 "Rs."

"PAD" Public Access Defibrillation

Look for new, small, easy-to-use defibrillators hanging on walls in lots of places, just like fire extinguishers.

Lifeguards, security guards, even hotel desk clerks and the server in your favourite restaurant are being trained to use them.

Seriously!

These are for the general public to use. That is how they get their name.

MODULE 2

Risk Factors You Can Control

Cigarette smoking
High blood cholesterol
High blood pressure
Diabetes
Obesity
Lack of exercise
Excessive stress
(for some people)

A Healthy Diet Includes:

1. Eating lots of vegetables and fruit.
2. Choosing whole grain foods more often.
3. Eating a variety of foods that provide protein.
4. Avoid highly processed foods.
5. Watch out for sugar-sweetened beverages.

For more tips and info like this, please visit <https://www.heartandstroke.ca/get-healthy/healthy-eating/healthy-eating-basics>

THE 4 “Rs” OF CPR

I. Risk Factors — Heart Disease and Stroke

A risk factor is something that increases the chance of heart disease or stroke. If you have several relatives who have heart trouble, you too may be at risk. This, and simply getting older, are two risk factors you can't do much about.

But you can do something about most risk factors. Let's talk about these and about being “**Heart Healthy**”.

Smoking

Smoking causes lung cancer and stinky breath. It is also the leading cause of heart disease in Canada. It is the worst, most direct, most personal, kind of air pollution. Even if you don't smoke, those smokers around you are offering you second-hand air pollution.

High Blood Cholesterol

High blood cholesterol means lots of fat in the blood. Some is produced by our body, while other fat comes from our food. Too much cholesterol can cause heart disease or stroke. To help reduce your chances of having high cholesterol, eat more vegetables, fruits and grain products, limit the amount of fat in your diet and get plenty of physical exercise.

High Blood Pressure

High blood pressure can damage your heart and blood vessels, increasing your chances of having a heart attack or stroke. It means your heart has to work harder to pump blood through those pipes, your blood vessels. It can run in families, but diet and stress may affect it too. Your blood pressure can be too high and you might not know it. You may feel pretty normal but it is still dangerous. Blood pressure should be checked regularly.

Diabetes

Diabetes affects the level of sugar and fat in your blood. It is a problem, but it can be managed. People with diabetes will do better and have fewer complications like heart trouble or stroke if they eat properly and follow their doctor's instructions.

Obesity

Obesity is not good. Your heart has to pump harder all the time to move blood around.

You Were Going to Ask...

So what's the difference if your heart works hard because you are overweight or because you exercise? Why is one good and the other not? Well, a sweaty weightlifter does a workout, hits the showers, rests a day and comes back for more. His muscles get stronger. If he had to lift weights 24 hours a day, his body odour might get stronger, but his muscles, well, they would just wear out.

We Are Not Just Talking About Heart Attacks!

Remember, emergencies needing CPR happen for various reasons. People of all ages drown, get electrocuted or bleed from injuries. With your CPR training, you will be able to assess if a person with one of these problems needs CPR.

Lack of Exercise

Lack of exercise is another risk factor. Remember, your heart is a muscle. It works better if you keep fit and active.

Stress

Stress affects the body in very physical ways. If you are nervous, if your hands are shaking, you can be sure things inside of you are also being affected. If you are stressed for a long period of time, your body may break down. Heart problems can be one of the results.

Lifestyles, Risk Factors — Some Thoughts

You never find parents **encouraging** kids to smoke. They learned the little things about smoking, like the expense and the bad breath! Some have learned about the bigger costs, about wheezing, heart disease or lung cancer.

And what overweight adult wouldn't love to be fit and thin? Yet, unlike smoking, you still find adults who don't know what a healthy diet is. Some kids are growing up with poor diet habits they pick up at home. There is more work to do here.

If some adults in your life smoke or are overweight, it may not be totally their fault. It can be really tough to lose weight or stop smoking. Now, many of those adults have health problems. You can be smarter, developing healthy living habits. You are able to learn more about what to do... and about what not to do. Set your own course.

Well, that is one "R" out of the way. Don't be afraid to go and tell the folks at home what you have learned about Risk factors. You may help someone make wiser choices.

Now let's move on to Recognition...

MODULE 3

II. Recognize

“**Early Recognition**” means realizing someone may be having heart trouble, a stroke or a cardiac arrest.

Signs of a Heart Attack

The 5 “Ps”

Signs of a Heart Attack — Look for the 5 “Ps”

Pain — heaviness, tightness, squeezing or pressure, which may spread to the neck, jaw, shoulders or arms.

Pale — pale skin (that is often sweaty).

Puffing — trouble breathing.

Pooped — feeling very tired.

Puking — feeling sick to the stomach or actually vomiting.

Signs of a Stroke

Signs of a Stroke

If you recognize what might be a stroke: sudden numbness, tingling or weakness of the **F**ace, an **A**rm (or a leg), or **S**peech problems, **T**ime is critical. New treatments for strokes (e.g. clot busters) must be given within a few hours to work.

No driving to the hospital! Call 911 for an ambulance which will take you to the right hospital.

Face is it drooping?
Arms can you raise both?
Speech is it slurred or jumbled?
Time to call 9-1-1 right away.

Act **F A S T** because the quicker you act, the more of the person you save.

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Denial and Fear

People often have trouble accepting that they might be experiencing a heart problem or stroke. You might see:

Denial — “I’m too young!” “It will go away with a little rest!” The thought, “It can’t be happening to me.”

Fear — the person may be terrified inside and afraid to go to the hospital.

Be firm. If the signs are there suggesting a heart attack or stroke, the person needs to be taken by ambulance to a hospital quickly.

It is important that you Recognize that what is happening in front of you may be a real emergency. Remember the signs for a heart attack and the signs for a stroke and don’t let yourself be paralyzed by Fear and Denial.

Suspect a Cardiac Arrest?

Occasional gasps?

Treat as if there is no breathing.

Signs of a Possible Cardiac Arrest

If the person is unconscious, tap the shoulders and shout, “Are you alright?” and check for breathing. If there is no response and no breathing, assume the person is in cardiac arrest. If the person still has occasional gasps, treat that as if there is no breathing.

Now let’s learn how to React...

MODULE 4

If the Person Has Chest Pain... What Do You Do?

Remember:

“Hazards & Holler”

Then... stay with
the person and
offer a little PLT
Position — P
Loosen clothing — L
Talk, reassure — T

Alert ! Alert !

People who have
been ill often wear
a “MedicAlert” bracelet
or necklace.
It will often have
information about the
person’s allergies, past
medical history and
medications.

III. React

What if it might be a Heart Attack or Stroke?

Check for hazards — make sure there is nothing around that can hurt you (e.g. electric wires, traffic, fire, glass, gas).

Holler for help if you are alone. If you are still alone, call 911 for an ambulance. If someone hears your call, get that person to call 911 and send someone for an AED.

If a person with chest pain, which might be a heart problem, has Aspirin tablets nearby, suggest chewing or swallowing 2 low dose (81mg) pills, or just a regular Aspirin while waiting for the ambulance. If the person already took Aspirin or has been told not to take it in the past, wait for the paramedics instead.

If you think the person may be suffering a stroke, no Aspirin.

While waiting for the ambulance there are several things you can do to make a person more comfortable:

Position the person so he/she is most comfortable. Usually sitting or lying down will be best but the person will usually tell you what works best;

Loosen tight clothing at the neck or waist;

Talk to the person. Let him or her know help is on the way. Remember, as much as possible, stay with the person. If the person becomes unconscious, he/she will need your help even more.

What if the person is in cardiac arrest?

Shout for help, call 911, send someone for an AED and start CPR.

What to do until the ambulance gets there?

Paramedics are trying to find you. Be Visible with Information. Get out front. Wave and/or flash lights when you see them.

What information should you give them about the person?

Medications — Gather any medications. Bag them if you can.

Allergies — Are there any? Ask. Write them down.

So, Hazards and Holler, a little PLT, and flash the paramedics. Remember that, and you know how to React when you see an emergency develop.

Now let’s move on to Resuscitation...

HOLD IT! Stop everything! Did they really just say you were supposed to “flash the paramedics”?

NO! NO! They meant to say “flash the lights”! ...the porch lights ...the house lights ...any lights.

MODULE 5a

IV. Resuscitate (CPR)

If a person has stopped breathing with no circulation needs CPR until either the person is breathing and circulation returns, or until medical help takes over ... and how do you do that?

CPR is as simple as CAB-D!

- C — Compressions.** Start chest compressions to help blood circulate.
- A — Airway.** Something in the mouth blocking air from getting in? Get it out of there.
- B — Breathing.** Not breathing? Do mouth-to-mouth. Breathe for this person.
- D — Defibrillation.** If you started CPR, make sure help is coming, especially someone with a defibrillator.

Well, you **remember your CAB-D**, and just do what you are trained to do on the next pages!!!

The High School CPR & AED program offers two options for teaching adult/teen CPR.

1. The 'Heartsaver Level CPR' course in which the CPR technique includes giving breaths.
2. The 'Compression-Only CPR' course in which the CPR technique does not include giving breaths.

"I've been trained. I can do this."TM

Often people stand around in an emergency waiting for someone else to do something, hopefully someone trained and capable. Hey! ... If that is you, Focus! Act now!! "I've been trained. I can do this."TM Say something. Do something. Act now! Others will help.

Ask permission to help...

Before touching a person who needs help but who is still conscious, you must ask for and get permission to help. Say you have had CPR training. Ask, "May I help you?"

Go ahead and help if the person is unconscious or is a young child who is alone. The law assumes the person wants help. Provide care just as you would want someone to care for you. Do what you are trained to do. Do your best.

CPR: Simple as CAB-D

Compressions
Airway
Breathing
Defibrillation

ONE RESCUER CPR — ADULT

If someone collapses...

Remember say to yourself: "I've been trained. I can do this."™

1 Check for hazards.

Make sure there is nothing around that can hurt you (e.g. electric wires, traffic, fire, glass, gas).

2 Assess responsiveness and check for breathing.

Tap shoulders, call out to the person. Look at the face and chest for signs of breathing.

Note: You are checking an unconscious person for breathing and suddenly the person takes a breath or two - a sort of gasp or sigh. Sometimes this happens, especially if a person's heart has just stopped. It will not look like normal breathing. The person is in cardiac arrest.

3 Call 911.

Or your local EMS, or have someone call for you, if the person is not moving, is not responsive and is not breathing (or there is only an occasional gasp of air). Send someone for an AED.

4 Landmark for chest compressions.

Compress the lower half of the person's breastbone in the centre of the chest, between the nipples.

Place the heel of your hand on the breastbone in the centre of the chest between the nipples. Place the heel of your second hand on top of the first so that your hands are overlapping and parallel.

Interlock your fingers off the chest. Position your shoulders directly above the heels of your hands. Keep your arms straight, with your elbows locked in position. Your instructor will show you how.

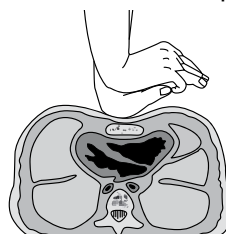
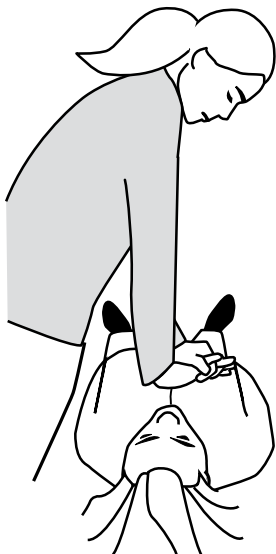
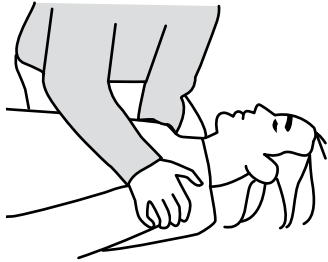
5 Give chest compressions.

Compress straight down on the breastbone. Compress at least 5 cm (2 inches) at a rate of 100-120 compressions per minute.

Push hard, push fast.

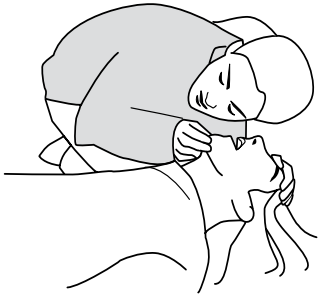
It helps if you count aloud (e.g. 1 and 2 and 3 and 4 and 5 and 1 and 2 and 3 and 4 and 10 and 1 and 2 and 3 and 4 and 15 and etc. on up to 30).

Without losing contact with the chest, allow the chest to return to its normal position between compressions. Find your landmark with each new cycle of compressions.



Note: Push hard! Push fast! Chest compressions squeeze the heart and all the big blood vessels in the chest. That is how CPR circulates blood. It only provides about 30% of normal circulation but studies show early CPR is the most important thing to save someone whose heart has stopped.

Note: If your teacher is teaching you the 'Compression-Only CPR' course (CPR technique without giving breaths), proceed from Step 5 directly to Step 8. If your teacher is teaching you the 'HeartSaver CPR' course, continue with Steps 6, 7 and 8.



Head-tilt Chin-lift:

Place one of your hands on the person's forehead and the fingers of your other hand under the bony part of the lower jaw near the chin. Tilt the person's head back by pushing down on the forehead. At the same time, gently lift the chin up to open the airway.



6 After 30 chest compressions, **open the airway** using the head-tilt chin-lift method.

7 **Give 2 breaths** (if the person is not breathing).

Maintain the head-tilt chin-lift. Pinch the person's nose, take a normal breath and cover their mouth with your mouth (assuring a good seal at the nose and mouth).

Give 2 breaths, 1 second for each breath. Watch the person's chest to make sure it rises and falls with each of your breaths.

If your breaths do not go in, reposition the head to open the airway, check your seals at the mouth and nose, and try again.

Continue CPR at a rate of 30 compressions to 2 breaths.

*Note: You are learning how to do mouth-to-mouth breathing, but some people may be nervous to do it as part of CPR. That is OK, but it is important to do something! If you are reluctant to perform mouth-to-mouth, just do the chest compressions (**Compressions-Only CPR**). It's better to do something than nothing!

8 **Continue CPR** even when someone brings an AED. Stop when the AED is ready to use or when you see signs of life, breathing, movement or Emergency Medical Service (EMS) personnel take over.

Getting Tired?

If you get tired while doing CPR and there are others around who know how to do it, ask for someone to take over. Do your best until help arrives.

MODULE 5b

DEFIBRILLATION

“PAD” Public Access Defibrillation

An AED placed where everyone can see and use it.

Look for them in airports, health clubs, arenas, city swimming pools ... and in your school.

Remember: The most common kind of cardiac arrest is due to ventricular fibrillation. The heart’s main muscles, the ones around the ventricles, lose their rhythmic pumping action. They fibrillate - a squirmy kind of muscle contraction that doesn’t pump blood.

Work quickly and you may be able to fix this. Do CPR and use an AED.

What is an AED?

It is a device that automatically analyzes heart rhythm and, if necessary, gives an electric shock to return a heart to its normal rhythm.

Sticky pads are placed on the chest to allow the AED computer chip to see if the heart’s electrical rhythm is in ventricular fibrillation. If it is, the computer tells you to stand back. Then it sends a type of electrical shock through the pads to the heart, trying to reset the heart. If the person’s heart starts to beat normally again - if it is no longer fibrillating - you have defibrillated someone ... and saved a life.

How do I use an AED?

If you find someone in cardiac arrest, this is what you do...

Remember, say to yourself, “I’ve been trained. I can do this.”™



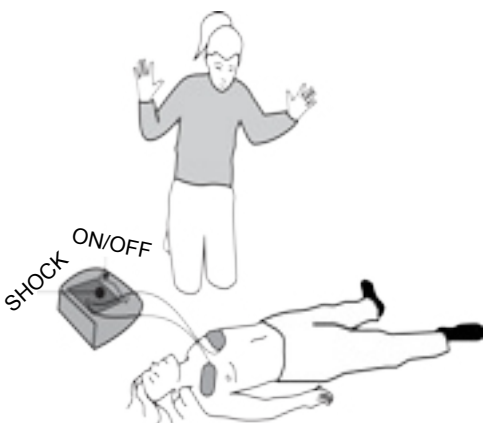
1 Call 911 or your local EMS, or have someone call for you, if the person is not moving, is not responsive and is not breathing. Send someone for an AED.

2 Start CPR.

3 If there is an AED...

- Turn it on and follow the voice prompts.
- Continue CPR while setting up the AED.
- Expose the chest, dry skin, and remove excess hair or medical patches from the person’s chest prior to applying the pads.
- Apply the electrode pads to the person’s bare chest.
- Stop CPR when the AED tells you and **DON’T LET ANYONE TOUCH THE PERSON**. If the AED prompts you to press the shock button, do it. (Some AEDs shock automatically, but most will tell you to press a button to shock the person.)
- Start CPR again when the AED tells you. Follow the voice prompts. If you see signs of life, breathing, and/or movement, place the person in the Recovery Position.

“All Clear!”



MODULE 5c

CHOKING

When a person chokes on food or a small object that is lodged in the throat, air cannot reach the lungs. The person may die if help is not given immediately. Recognize that a person is choking by the universal distress sign of choking — hands to the throat.

When a person chokes, the throat or airway can be either mildly or severely blocked.

A **mildly blocked airway** allows some air to get in. If a choking person can still speak, cough or breathe, you know the blockage is not complete. Encourage the person to cough to try to clear the obstruction themselves.

With a **severely blocked airway**, there is no air getting in. If that person can't speak, cough or breathe, you have to **React** quickly. This is a serious emergency.



Adult Conscious

- 1 **Assess the airway blockage.** Remember, say to yourself, “I’ve been trained. I can do this.”™ Ask, “Are you choking?” “Can I help you?”
- 2 **Holler for help.** Reassure the person and explain what you are going to do. Call 911 or your local Emergency Medical Service (EMS), or have someone call for you if the person is having difficulty breathing.

“Are You Choking?”

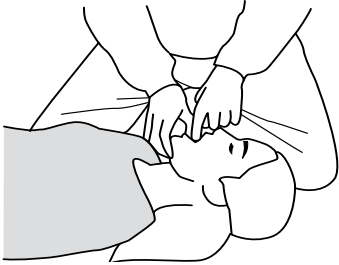
- 3 **Give abdominal thrusts** (sometimes called the Obstructed Airway Manoeuvre) if the choking person cannot speak, cough or breathe. Stand behind the person and wrap your arms around his/her waist. Make a fist with one of your hands and place the thumb side of that fist in the belly button area, slightly above the belly button and well below where the ribs meet. Grasp your fist with your other hand and press inward and upward with a sudden forceful thrust.

- 4 **Repeat abdominal thrusts** in rapid sequence until either the obstruction is removed or the person becomes unconscious. When the obstruction is removed, the person should see a doctor to rule out complications from the obstruction or the abdominal thrusts.

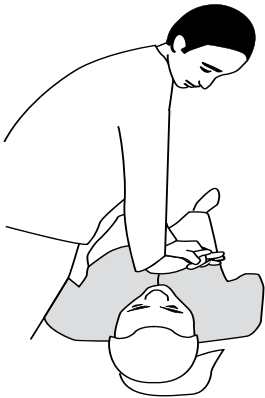


If the Choking Person Becomes Unconscious

(Carefully support the person to the ground. You have already activated EMS. Begin CPR.)



- 1 You have already **called 911** or your local Emergency Medical Service (EMS), or had someone call for you. You have already sent someone for an AED.
- 2 **Landmark and give 30 chest compressions.** This may remove the obstruction.
- 3 **Open the mouth and look for the obstruction.** If you can see the obstruction, try to remove it with a hooked finger.
- 4 **Open the airway** using the head-tilt chin-lift. Even though you may not be able to see the obstruction, it may have loosened enough to let some air pass by it and enter the lungs.



- 5 **Try to give a breath.** If air won't go in, reposition the head, check your seals at the mouth and nose and try to give another breath.
- 6 **Repeat sequence of chest compressions**, looking in the mouth, opening the airway and attempting to ventilate until you are successful, or until medical help takes over.

Adult Found Unconscious

Remember, say to yourself, "I've been trained. I can do this."TM

- 1 **Check for hazards.** Make sure there is nothing around that can hurt you (e.g. electric wires, traffic, fire, glass, gas).
- 2 **Assess responsiveness and check for breathing.** Tap shoulders, call out to the person. Look at the face and chest for signs of breathing.

3 **Call 911** or your local EMS, or have someone call for you if the person is not moving, is not responsive and is not breathing. Send someone for an AED.

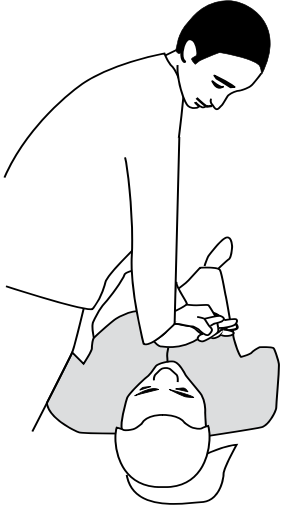
4 **Landmark and give 30 chest compressions.**

5 **Open the airway** using the head-tilt chin-lift method.

6 **Try to give a breath** if the person is not breathing. If air won't go in, reposition the head, check your seals at the mouth and nose and try to give another breath. If the chest still does not rise, conclude that the airway is blocked by something.

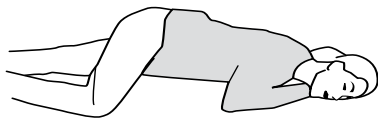
7 **Open the mouth and look for the obstruction.** If you can see the obstruction, try to remove it with a hooked finger. Open the airway and attempt to ventilate again. If air still won't go in...

8 **Repeat sequence of chest compressions**, looking in the mouth, opening the airway and attempting to ventilate until you are successful, or until medical help takes over.



Follow-Up Care *(Your Teacher will show you how)*

When the person starts to breathe, place him/her into the **recovery position** if injuries permit. The person may gag or vomit, and the recovery position will help keep the airway open and allow fluids to drain from the mouth. Monitor the breathing carefully. The person may stop breathing again. Stay with the person until medical help takes over.



Recovery Position

For information on different rescue scenarios you may encounter, as well as new information relating to the world of CPR (including guideline updates), check out ACT's website at www.actfoundation.ca!

MODULE 6

It's not just about CPR!! It's about **CP-R-R-R-R...**

So you thought this CPR course was all about learning CPR. Well OK, that is understandable. But wait! Think of what you have learned. Think about the **4 “Rs”**.

You now know about **Risk** factors, that a life of burgers and fries and stinky cigarette breath can be a short one. Lots of overweight adults and parents who struggle to quit smoking would have loved to know what you know when they started out.

Maybe you will never see anyone collapse. Maybe you won't ever have to do CPR. But chances are greater that you will be around someone who falls ill. You have learned to **Recognize** if that person might be having a heart attack or stroke.

Seeing someone in your family having chest pain, looking pale and sweaty (remember your Ps) should push you to help them get to the hospital. If your dad has chest pain, he may not know about clot busters. But you do. You were not trained to be shy. Step up!
React!

The “CPR thing” is only part of this course. **Resuscitate** is only one of the **4 “Rs”**. Not everyone who falls sick has a cardiac arrest, but you can still help them. The sequences of CPR are important to remember. However, it is more likely you will need to remember the **“5 Ps of chest pain”** than how to do CPR. You need to remember **“Hazards and Holler and a Little PLT.”** You need to be **Visible with Information** for the paramedics.

Be a champion! You have the knowledge. You know **“Risks”**. Help others avoid trouble. But if there is trouble, you know **“Recognize”**. You know **“React”**. And yes, sometimes you will need to **“Resuscitate”** and do CPR.

SO, LET'S TEST YOUR 4 “Rs” IQ...

True Scene From Life

Seventeen-year-old Kasia Smetny-Sowa was vacationing in Halifax when she saw a man collapse at a local tennis club. The Ottawa student rushed to his side, where a crowd was already forming. The man had no pulse and an ambulance had been called. It had been two years since Kasia had learned CPR at her high school, but she remembered what to do. She began CPR and, with help from another bystander, continued until the ambulance arrived.

Success!

Thanks to Kasia, 60-year-old Nick Weatherston is alive and well. And for that, his wife Pat is eternally grateful. "I feel we were truly blessed by a guardian angel."

SCENES FROM LIFE

- 1 You are on a field trip to a local museum. You notice that Mrs. Jones, one of your teachers, is standing very quietly. She does not look well. Speaking with Mrs. Jones you **Recognize** her pain might be cardiac.

(The 5 Ps of Chest Pain)

You **React**, getting someone to look for another teacher. If there is none, you get someone to call 911. You sit Mrs. Jones down and open a window so she can get some air.

(Hazards and Holler and a little PLT)

Now that the paramedics are coming, ask Mrs. Jones about medications, allergies, etc... While you are doing that, ask someone else to go to the front door of the museum to guide the paramedics to where you are.

(Visible with Information)

- 2 Your allergic brother comes home from a friend's house wheezing badly. He played with a dog there and his asthma is severe. He is using his inhaler too often and not getting better. You holler for your mom, who calls 911. You reassure him help is coming. You stay right with him. You tell your mom to bag his inhalers and go to the front to wave at the paramedics as they come down the street.

(Hazards and Holler and a little PLT)

(Visible with Information)

Your brother gets sicker and suddenly you realize he is very quiet. He is unresponsive and is not breathing. You are scared, but you start CPR.

(Resuscitate)

- 3 You are hanging out with your friends at the mall when you hear a man yell that a woman has collapsed. Bystanders are already performing CPR and you know where the AED is located.

(CAB-D)

- 4 You are on the sidelines of a school basketball game when you see a player suddenly collapse on the court. Another player yells that he/she is not breathing.

(CAB-D)

True Scene From Life

Mark was watching television in his basement when his mother called him to hurry upstairs to help his 46-year-old father Joe, who was choking. He rushed upstairs to find his father standing in the kitchen, his face red and his hands at his throat.

No sound was coming from his mouth. He couldn't breathe.

Despite his shock, Mark sprung into action, performing the Obstructed Airway Manoeuvre, which he had learned in school.

A piece of his father's chicken dinner shot across the room.

MORE SCENES FROM LIFE

- 5 At a family dinner, you notice your grandmother is suddenly having trouble speaking. She drops a fork and can't pick it up. She looks ill. You **Recognize** she might be showing signs of a stroke.

(The "P" Sign of a Brain Attack — Paralysis)

You **React**, pointing out to everyone that Granny is sick. You note this could be a stroke. Your mom calls 911 as you help Granny into the recovery position.

(Hazards and Holler and a little PLT)

While your dad checks Granny's purse looking for medications, you ask your mom questions. You write the answers down for the paramedics. Your brother moves the car out of the driveway so the ambulance can get close to the house.

(Visible with Information)

- 6 You and your dad are alone watching TV. You suddenly notice he doesn't look comfortable. He says he has pain, which you **Recognize** might be a heart problem.

(The 5 Ps of Chest Pain)

You **React**, urging him to call 911. You tell him you are afraid for him and you let him know about clot-busters. He says it is nothing, probably indigestion. He is sweaty and vomits. You decide to act on your own. You call 911. You help dad lie down.

(Hazards and Holler and a little PLT)

You leave him for a second to turn the porch light on so the paramedics can see the address number. You ask your dad where his medications are. When the paramedics arrive, you tell them dad's medications are in the bathroom.

(Visible with Information)

- 7 At a party, a girl is found unconscious in the backyard pool. Someone has lifted her to the poolside. You step up and say, "I know CPR." (It scares you a little that people are suddenly listening to you and doing what you say). You **Recognize** that this person is in cardiac arrest.

(CAB-D)

You **React**, yelling for someone to call 911.

(Hazards and Holler and a little PLT)

And you **Resuscitate**, starting CPR. Be careful to support her neck, because you don't know how she fell into that pool! You tell someone to get any information about this girl. Who is she? Does she have a wallet? Does it have any medical information in it? You send someone to the street to flag down the paramedics and guide them through the house to the backyard.

(Visible with Information)

(Resuscitate)



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**There is No
“Survival”
Without “u”**

LAST WORDS...

WE WANT YOU TO RATTLE THE CHAIN

Lots of people die. They die from drowning, from heart attacks, from all kinds of things. They are someone’s mom or dad, someone’s brother or sister, someone’s child, someone’s friend... you get the picture. Maybe someone in your family died of a heart attack — someone close to you? Was everything done that could have been done? The thing is, some of them didn’t have to die. If only someone had known how to help, how to rattle the **Chain of Survival**.

A person collapsing in cardiac arrest will have a much better chance of survival if someone calls 911 fast and starts CPR fast, if someone defibrillates the person fast, and if paramedics arrive fast... all those things, FAST! These are links in the “**Chain of Survival**.” The missing link? It’s you! That is going to change now that you know CPR and how to use an AED. You are never going to be helpless if someone collapses in front of you.

Not everyone is going to live just because you start CPR. But **no cardiac arrest patient lives if you don’t start CPR**. The 911 system, defibrillators, paramedics... forget it all if you don’t do CPR until more help arrives. You know how to “**RATTLE THE CHAIN**.” You are the key link!

If you feel good about learning this new skill, tell your teacher. But also tell your family and friends. Show them what you have learned. Bug them to take a course as well.

You should refresh your CPR and AED skills over time. There will be changes in the course and you will want to stay on top of things. Flashing a current CPR and AED card might look good when you apply for a job, even babysitting.

Congratulations! Stand up and say, “I’ve been trained. I can do this.”™ No, shout it. Remember, you are CPR trained in your house. You are the one to make a difference, perhaps a difference between life and death for someone because of what you know. Be proud! When someone needs you, step up!

Finally, have you “**RATTLED THE CHAIN**” already? If so, turn to page 24 to learn how to tell a “**Rattle Tale**.”

I Know CPR

I know Risks
I know Recognize
I know React
I know Resuscitate

I know CPR!
I know how to
use an AED
“I’ve been trained.
I can do this.”™

GOT SOME QUESTIONS? GET SOME ANSWERS...

1 If I just don't want to do CPR on someone, do I have to?

Some people are nervous about infection if they have to do mouth-to-mouth breathing. Resuscitation emergencies usually happen at home, most often involving people close to you. Hopefully, you will react and help. If a stranger collapses in a public place, you will be equipped to make a difference, to start CPR if necessary. But, it is your decision. If you are hesitant to do mouth-to-mouth, Recognize what is happening, React by calling for help (911) and Resuscitate, performing chest compressions.

2 What do I do if I am reluctant to do mouth-to-mouth?

If you are reluctant to do mouth-to-mouth breathing (e.g. fear of infectious disease, drug overdose, vomit on the mouth, etc.), just performing chest compressions is still valuable. Just making the 911 call can still save a life!

3 Can I get AIDS (HIV) or other infectious diseases from doing CPR?

You may risk infection if you come in contact with someone's saliva, whether it is kissing or performing mouth-to-mouth CPR. The risk is low and saliva has not been known to spread HIV. The real danger from HIV is from intimate sexual contact or sharing needles with an HIV-infected person.

Most people who suffer a cardiac arrest do so at home. We are talking about family. You will usually know if the person has some serious infection.

4 Can I be sued for doing CPR?

Some provinces have a "Good Samaritan Act" or a law like it that protects people who just try to help (visit www.actfoundation.ca for information on your province). Lawsuits just haven't happened if people meant well and tried their best to do CPR the way they were trained. Again, remember most people who suffer a cardiac arrest do so at home.

5 Does everyone whose heart stops need CPR?

It may be no surprise when a person suffering from a serious terminal illness, or extreme old age, has a cardiac arrest. Technically, everyone dies that way. The heart stops. Life ends. CPR is not usually meant for people whose death was anticipated and perhaps quite natural. CPR is meant for those people who have a sudden cardiac arrest — for whatever reason — when it wasn't expected.

6 Should people with a possible heart attack or stroke take Aspirin (ASA)?

If a person's chest pain might be cardiac, doctors often try to give the patient an Aspirin (ASA) pill. It works as a blood thinner, it may limit the damage done by a heart attack. Tylenol or Advil don't work for this. Some patients are allergic to ASA but if the person with pain says, "ASA, no problem. I take it all the time," then OK. Just one is all that's needed. When the paramedics arrive, tell them ASA was given.

If you suspect a person might be suffering a possible stroke, no Aspirin. Let the paramedics decide that one.

7 If someone has chest pain that might be a heart pain, (remember the 5 Ps?) should they take Nitroglycerin?

Many patients take a medication called **Nitroglycerin** that helps open up those clogged blood vessels and relieves the pain of **angina**. If a person with a possible heart pain wants to take Nitroglycerin, help out. Check their pockets or purse. “Nitro” is usually in a little spray bottle. It is squirted under the person’s tongue. If you see it, help the person use it.

8 When people fall down unconscious, do I have to worry about their neck?

Sometimes when people collapse, they hurt their neck. Suspect a neck injury when the collapsed person has:

A head injury; Fallen from a height or down stairs; Been in a motor vehicle collision;
Bleeding from the mouth, ears, nose; Swelling along the neck or spine.

You have learned how to assess responsiveness, the airway, breathing and how to do mouth-to-mouth breathing. If you suspect either a head or neck injury, you must protect the head and neck from movement when you are doing these things to prevent further injury to the neck.

9 What if it is not a heart attack? Will I look foolish if it is a false alarm?

At the emergency department of the hospital, doctors will examine the person. They may do special tests. If there is an important problem the person may stay in the hospital. But often the problem is not caused by a heart problem and the person may get sent home. Did you make a mistake? No! It is OK to be wrong like this. Even doctors can’t tell without tests. Doctors will say you did the right thing. No one should make you feel stupid. Do it again next time.

10 What if the emergency is not caused by a heart problem?

People who drown or choke on something have cardiac arrests, but for different reasons. They can’t breathe. Oxygen can’t get to their lungs and into their bloodstream. The brain stops working. Soon, they are unconscious. Other organs like the heart start to fail.

People who are badly injured and bleeding may “bleed to death”. When they lose too much blood, there is no way oxygen can be delivered to various organs, which soon start to die.

CPR helps maintain the circulation and oxygen delivery for any of these people. By breathing for those people and pumping their hearts, the person doing CPR tries to keep them going until paramedics arrive. Hearts stop for many reasons, not just because of heart problems. CPR can help in any of these cases.

11 What do I do if I suspect an unconscious person may have suffered a drug overdose?

There is an increase in overdoses in many communities, especially due to narcotics (also called opiates) like morphine, heroin or fentanyl. Know the Risk that an unconscious person may have suffered an overdose of narcotics. Recognize whether the person is in cardiac arrest. React by calling for help (911) and for someone who can administer a Naloxone kit. Resuscitate: if the person is not responsive but is breathing, place the person into the recovery position. If the person is not responsive and not breathing, start CPR.

FREQUENTLY ASKED QUESTIONS ABOUT AEDS...

1 What if the person is in water, is all wet or has vomited?

Move the person away from the water. Dry the chest before applying the pads. Yes, even wipe away the vomit if you have to. It is OK to use the AED if the floor is just a little wet or if the person is lying on snow. Just make sure you dry off the chest before trying to stick the pads on.

2 What if the person might be pregnant?

Use the AED as you would for anyone.

3 What if the person is young?

Current CPR and AED guidelines allow you to use an AED on any size of person, including children (considered between 1 and 8 years old) and babies (considered as 1 year old or less). If child or baby pads or a child key or switch are available, use them. If not, use the adult pads. When you put the pads on the chest, make sure the pads don't touch each other. If there is less than 2.5 cm (1 inch) between the pads when they are placed on the chest, place one on the chest (anterior) and one on the back (posterior).

4 What if a person has a medication skin patch?

Don't stick the electrode pads over the patch. Either place the pads to one side or remove the patch and wipe the skin clean before applying the electrode pads.

5 What if the person has a pacemaker?

When you expose the chest, you might see a scar and lump, usually on the left side of the chest. Place electrode pads 2-3 cm away from that.

6 What if the AED says "Check pads"?

Press firmly on the pads to make sure they are stuck on properly. If you had previously dried the chest because it was wet, dry it and try again. If the chest is hairy, is there a way to quickly shave the hair or move the pads a bit to a better area? Is there a second set of pads with the AED? If there is any delay, keep doing CPR.

7 What if another person wants to take over?

Ask if that person has been trained. If not, you are the best one to continue CPR and guide them on how to use the AED.

8 What if a player at a hockey game collapses near where you sit? What if you see people running around, but not doing what you know needs to be done?

Like anywhere else, stand up and say "I know CPR. Call 911 and get the defibrillator!" Do it!

Any other questions? Check out ACT's website! www.actfoundation.ca

**Rescued
Someone?
Tell Us!
Tell Your
Teacher. Tell
Your Parents To
Tell Us.
Or... Tell Us
Yourself!**

RESCUED SOMEONE? KNOW SOMEONE WHO HAS? TELL US A “RATTLE TALE”!

Rattled the Chain? Someday you may use some of the skills and knowledge you have just learned.

Someone in your family quit smoking because you spoke up? You helped someone recognize they might be suffering from a heart attack or stroke? You had to call for an ambulance for someone? You helped the situation by being Visible with Information? You helped someone who was choking on food? You provided CPR and/or used an AED for someone? Something else?

LET US KNOW! Phone (it's free!):1-800-465-9111 or email us at act@actfoundation.ca.

CLOSING NOTES...

Your teacher will give you the ACT High School CPR & AED Program Student Course Completion Card at the end of this program. Wondering what to do with it? Present this card when applying for a job or put it in your portfolio! You've done a great thing by learning CPR and AED, so don't hesitate to let others know you have the skills to save a life! Think about taking more advanced training in CPR and First Aid, and remember to take a refresher course over time!



Saving people—Touching lives
www.actfoundation.ca

The ACT Foundation is a national, award-winning charitable organization that works alongside health professionals, governments and community groups in promoting health and empowering Canadians to save lives. ACT is working with partners to establish CPR and defibrillator training programs in high schools across Canada.

ACT's health partners are:

AstraZeneca Canada
Sanofi Canada
Amgen Canada



Saving people—Touching lives

**HIGH SCHOOL CPR & AED PROGRAM
School-Based Model for Teachers**

APPENDIX K

**Review Exercises for ACT
CPR & AED Student Manual**



Saving people  Touching lives

REVIEW EXERCISES FOR ACT STUDENT MANUAL

INTRODUCTION (page 3)

1. The Chain of Survival describes the _____ response system we need if we are going to improve survival from pre-hospital cardiac arrests.
2. An important link in the Chain is “Early Access”. This means a _____ telephone service.
3. The next link is “Early _____”.
4. The link after that is a shocking one, “Early _____”.
5. The next link, “Early _____ _____”, refers to paramedics.
6. The Heartsaver CPR course teaches the ____ “R’s” of CPR:
 - about _____ factors for heart disease and stroke;
 - about how to _____ that what is happening might be a serious developing emergency;
 - about how to _____ to that;
 - about how to _____ a person who is choking or suffering from a cardiac arrest.

THE HEART AND WHEN IT BREAKS (pages 4 & 5)

1. Blood carries _____ to organs and tissues of the body.
2. The heart is just one big, mighty, tough _____.
3. Blood vessels, called _____, deliver blood to the heart muscle tissues.
4. They can get clogged by gobs of _____.
5. When the heart’s (coronary) arteries get blocked, that person will have _____ in the chest.
6. If the block is severe, that person is having a _____.
7. Sometimes when people have a heart attack, the heart stops beating effectively. This is called a _____.
8. In the most common kind of cardiac arrest, heart muscle beats with a squiggly, squirming kind of movement called _____.
9. A patient in ventricular fibrillation needs a special kind of electrical shock delivered to correct the heart rhythm. If a heart in fibrillation is shocked, it is _____fibrillated.



RISK FACTORS FOR HEART DISEASE AND STROKE (pages 6 & 7)

1. Smoking is personal air pollution that causes heart disease, lung cancer and _____ breath.
2. If your diet has lots of vegetables, _____ and grain products, it doesn't leave much room for cholesterol.
3. Hypertension is not about being "hyper." It refers to high _____.
4. Diabetes is an illness affecting how we control sugar in our blood. If that's out of control, fat levels in blood get out of control. A proper _____ helps this a lot.
5. Obesity is a risk factor by itself because the heart has to work _____ to pump blood to the tissues.
6. Exercise helps all your muscles stay in good shape, including the _____ muscle.
7. Stress affects us physically, causing a number of problems including _____ problems.

RECOGNIZE (page 8)

1. The signs of a heart attack include:
 - Crushing or squeezing chest _____ that may spread to the person's neck, jaw, shoulders or arms.
 - Looking _____ and perhaps sweaty.
 - Feeling sick to the stomach or actually _____.
 - _____, trying to get a breath.
 - Feeling _____, very tired, no energy.
2. If your patient has the 5 "Ps" of cardiac chest pain, you should call _____ for help. (Oh darn, what is that phone number?)
3. If someone has chest pain, they often don't go to the hospital quickly because they are very afraid (fear) or because they just can't believe it is a serious problem (_____).
4. You too may hesitate to call 9-1-1 because you are afraid to look stupid if you are wrong (_____) or because you too, just can't believe it is a serious problem (denial).
5. The signs of a stroke include sudden _____ of the face, arm or leg, and/or sudden speech problems.

REACT (page 9)

1. Some people feel the most important reaction a person trained in CPR can have is to call for _____.
2. You find information about a person's allergies, medications and past medical history on a _____ bracelet or necklace.

RESUSCITATE (pages 10–16)

1. In CPR, the CAB stand for:
 - C _____
 - A _____
 - B _____
2. When you need:
 - An ambulance fast, you call _____.
 - The fire department fast, you call _____.
 - The police department fast, you call _____.
3. You continue CPR until _____ arrives.
4. People who are seriously choking usually clutch at their _____. This has become the universal distress sign for this problem.



5. When someone is conscious and choking, you can help by performing the _____
Manoeuvre.

Note: Questions 6-10 only apply where the use of an AED was taught.

6. What does AED stand for? _____.
7. You would stick the AED pads on what two parts of the person's chest?
_____ and _____.
8. Name something you will find in an AED kit to help protect you, and also name something that may help the electrode pads stick to the chest. _____ and _____.
9. This shockable heart rhythm is a squirmy kind of heart muscle contraction that doesn't pump blood. It is common in cardiac arrest. _____.
10. What important safety step do you need to take before pressing the AED shock button to ensure no one will be shocked accidentally? _____.

ANSWER SHEET FOR REVIEW EXERCISES FOR ACT STUDENT MANUAL

INTRODUCTION (page 3)

1. Emergency
2. 911
3. CPR
4. Defibrillation
5. Advanced Care
6. 4; risk; recognize; react; resuscitate

THE HEART AND WHEN IT BREAKS (pages 4 & 5)

1. oxygen
2. muscle
3. arteries
4. cholesterol
5. pain
6. heart attack
7. cardiac arrest
8. fibrillation
9. de-

RISK FACTORS FOR HEART DISEASE AND STROKE (pages 6 & 7)

1. stinky
2. fruits
3. blood pressure
4. diet
5. harder
6. heart
7. heart

RECOGNIZE (page 8)

1. pain; pale; puking; puffing; pooped
2. 911
3. denial
4. fear
5. paralysis

REACT (page 9)

1. help
2. Medic Alert

RESUSCITATE (pages 10-16)

1. Compressions; Airway; Breathing
2. 911; 911; 911
3. help
4. throat
5. Obstructed Airway

Note: Questions 6-10 only apply where the use of an AED was taught to students.

6. Automated (or Automatic) External Defibrillator
7. Upper right chest and lower left chest
8. Gloves, razor, cloth or scissors
9. Ventricular fibrillation or (V-fib)
10. Say "All Clear" and look to make sure no one is touching the person (including you)

Visit the Teacher's Corner on ACT's website (www.actfoundation.ca) for more teaching tools and resources.





Saving people—Touching lives

HIGH SCHOOL CPR & AED PROGRAM School-Based Model for Teachers

APPENDIX L

Emergency Care Scenarios & Sample Performance Checklists

Note for teachers: Depending on whether you are teaching either the 'Heartsaver CPR' course or the 'Compression-Only CPR' course, there are sample performance checklists for each. Please choose which one applies to the course you are teaching.

- Heartsaver CPR – Sample Performance Checklist (for students to use)
- Heartsaver CPR – Sample Group Performance Checklist (for teachers to use)
- Compression-Only CPR – Sample Performance Checklist (for students to use)
- Compression-Only CPR – Sample Group Performance Checklist (for teachers to use)

EMERGENCY CARE SCENARIOS

Situations such as those below can be placed on task cards for students to:

- a) respond to in writing and discussion;
- b) act out and treat;
- c) brainstorm solutions in small groups.

Students can also be asked to create their own scenarios. Newspaper clippings with local incidents can provide realistic scenarios. Consider scenarios that could occur in situations where students might typically find themselves (e.g. at home, at school, at the lake, a football, hockey, or soccer game, a mall, at a dance, etc).

A variety of airway, breathing, circulation and AED emergencies should be included to encourage proper assessment and response. You might consider photocopying these for student group work.

CHOKING



1. During a weekend, there's a family gathering. You are sitting around the table eating, talking and drinking. Suddenly, Jane clutches her throat. She is not speaking, but her lips begin to turn blue. What do you do?



2. You are walking past your neighbour's house on a warm summer day. Suddenly, you hear your neighbour frantically shouting that her son has fallen into the backyard pool. He can't swim. When you reach the pool deck, you see his body beneath the surface. He is not moving. You are able to reach him and get him out of the pool, but he is unconscious. What do you do?



3. While practicing baseball, Tommy starts coughing very hard and leaves the field to go into the car. Knowing that Tommy always chews gum, what do you do?

SIGNS & SYMPTOMS (Heart Attack & Stroke)



4. An elderly gentleman is sitting on a park bench. He begins to complain of chest pain. He says he has had it before. As you consider what to do next, you realize that his pain is increasing. What do you do?



5. You are visiting your grandmother's home for lunch. She has just gone into the kitchen. Suddenly, you hear a loud thud. Upon entering the kitchen you see your grandmother on the floor. Her face seems to be drooping somewhat on the left side and she seems unable to move the left side of her body. What do you do?

EMERGENCY CARE SCENARIOS (CONTINUED)**SIGNS & SYMPTOMS (Heart Attack & Stroke) (continued)**

6. Your uncle fan at a hockey game has been very excited throughout the match. After the opposition scores the go-ahead goal, he becomes extremely angry, shouting at the referee that the play was offside. In mid-shout he stops, clutching his left arm. He sits down and seems to be having difficulty breathing. He says it feels as though someone is standing on his chest. What do you do?



7. Your brother is visiting for the holidays. You awake in the night to hear him walking around downstairs. When you go to see him, he complains of indigestion. You recall that he ate his evening meal very early and had nothing to eat later in evening. He is very pale and he appears to be short of breath. What do you do?

CPR & AED

8. You are driving on a back road just after a thunderstorm. Up ahead you see a power line down. As you get closer, you see the body of a young woman lying close to the downed line. She is not moving. What do you do?



9. You are hanging out with your friends at the arena or mall when you hear a man yell that a woman has collapsed. Bystanders are already performing CPR and you know where the AED is located. What do you do?



10. You're sitting with your family at the airport, waiting to board the plane. You're excited that in just a few short hours you'll be on vacation. However, you suddenly notice an elderly woman who appears to be in distress. She tells you her chest hurts and she is having trouble breathing. She falls out of her chair and does not seem to be breathing. What do you do?



11. You are on the sidelines of a school lacrosse game when you see a player suddenly collapse after being hit in the chest with the ball. Another player yells that he is not breathing. What do you do?

EMERGENCY CARE SCENARIOS (CONTINUED)

CPR & AED (continued)



12. Your younger sister has been diagnosed with a genetic heart defect and has been sent home from the hospital with an AED. You are home alone when you walk into the kitchen and find her lying on the floor, unresponsive and not breathing. What do you do?



13. You're waiting in the Principal's office when a teacher yells that another teacher has collapsed and is not breathing. What do you do?



14. You are on the sidelines of a school basketball or soccer game when you see a player suddenly collapse on the court. Another player yells that he/she is not breathing. What do you do?

Other topics you might consider for student-developed activities:

15. Asthma attack
16. Choking in restaurant; person goes to the washroom and is found unconscious
17. Alone and choking
18. Wilderness scenario
19. Rural/Remote scenario
20. Anaphylactic emergency scenarios

Note: Look for additional emergency care scenarios in the ACT Student Manual (Appendix J) and on ACT's website (www.actfoundation.ca).

HEARTSAVER CPR - SAMPLE PERFORMANCE CHECKLIST

Student demonstrates appropriate emergency response:

OUTCOME	INDICATORS	CHECK
1. For Conscious Casualty Emergency		
Scene Management "Recognize - React"	<ul style="list-style-type: none"> • Check for hazards, identify yourself and ask for permission to help • Assess responsiveness • Call for help, call 911 • PLT – position, loosen clothing, talk • Prepare for ambulance 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2. For Unconscious Casualty – Not Breathing		
"React - Resuscitate" (CPR)	<ul style="list-style-type: none"> • Check for hazards • Assess responsiveness, check for breathing • Call for help, call 911, send someone for an AED 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<ul style="list-style-type: none"> • Chest compressions 	<ul style="list-style-type: none"> • Begin chest compressions • Push hard, push fast 	<input type="checkbox"/> <input type="checkbox"/>
<ul style="list-style-type: none"> • Open airway • Ventilate 	<ul style="list-style-type: none"> • Head-tilt chin-lift • Ventilate 2 x, watch chest 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<ul style="list-style-type: none"> • AED 	<ul style="list-style-type: none"> • Cycle - 30 compressions and 2 breaths (1 second for each breath) • Continue CPR until someone brings an AED, or you see signs of life, breathing, movement or EMS personnel take over • Turn AED on and follow voice prompts • Continue CPR while setting up the AED • Expose the chest (dry chest, no hair, no medial patches) • Apply electrode pads in correct location, pressing firmly on chest • Stop CPR when AED tells you and don't let anyone touch the person • Say "Stand clear!" while AED analyzes and press the shock button if the AED prompts you to (be safe!) 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<ul style="list-style-type: none"> • Continue CPR 	<ul style="list-style-type: none"> • Start CPR when the AED tells you • Follow the voice prompts and repeat AED sequence when prompted by AED 	<input type="checkbox"/> <input type="checkbox"/>

All students are expected to meet the following criteria in performance of emergency response. All students will: (1) assess responsiveness and check for breathing, (2) Call 911 and send someone to get an AED, (3) give compressions, (4) ventilate, (5) give compressions/ventilations, (6) use an AED.

See Appendix E for Evaluation Tips in Teaching Tips.

HEARTSAVER CPR

SAMPLE GROUP PERFORMANCE CHECKLIST

ACT - Teacher Resource	
Heartsaver CPR - Sample Group Performance Checklist	
Student Name	
For Conscious Casualty Emergency:	
Check for hazards, identify yourself and ask for permission to help	
Assess responsiveness	
Call for help, call 911	
PLT - position, loosen clothing, talk	
Prepare for ambulance	
For Unconscious Casualty - Not Breathing:	
Check for hazards	
Assess responsiveness, check for breathing	
Call for help, call 911, send someone for an AED	
Start chest compressions (30 compressions)	
Open airway with head-tilt, chin-lift	
Deliver 2 breaths while pinching nose	
Cycles of 30 compressions, 2 breaths	
Turn AED on	
Continue CPR while setting up the AED	
Expose the chest (dry chest, no hair, no medical patches)	
Put AED pads on	
Say "stand clear" when prompted and press shock button	
Start CPR when AED prompts you to	
Repeat AED sequence when prompted	

COMPRESSION-ONLY CPR - SAMPLE PERFORMANCE CHECKLIST

Student demonstrates appropriate emergency response:

OUTCOME	INDICATORS	CHECK
1. For Conscious Casualty Emergency		
Scene Management "Recognize - React"	<ul style="list-style-type: none"> • Check for hazards, identify yourself and ask for permission to help • Assess responsiveness • Call for help, call 911 • PLT – position, loosen clothing, talk • Prepare for ambulance 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2. For Unconscious Casualty – Not Breathing		
"React - Resuscitate" (CPR)	<ul style="list-style-type: none"> • Check for hazards • Assess responsiveness, check for breathing • Call for help, call 911, send someone for an AED 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Chest compressions	<ul style="list-style-type: none"> • Begin chest compressions • Push hard, push fast 	<input type="checkbox"/> <input type="checkbox"/>
• AED	<ul style="list-style-type: none"> • Continue CPR until someone brings an AED,, or you see signs of life, breathing, movement or EMS personnel take over • Turn AED on and follow voice prompts • Continue CPR while setting up the AED • Expose the chest (dry chest, no hair, no medial patches) • Apply electrode pads in correct location, pressing firmly on chest • Stop CPR when AED tells you and don't let anyone touch the person • Say "Stand clear!" while AED analyzes and press the shock button if the AED prompts you to (be safe!) 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Continue CPR	<ul style="list-style-type: none"> • Start CPR when the AED tells you • Follow the voice prompts and repeat AED sequence when prompted by AED 	<input type="checkbox"/> <input type="checkbox"/>

All students are expected to meet the following criteria in performance of emergency response. All students will: (1) assess responsiveness and check for breathing, (2) Call 911 and send someone to get an AED, (3) give compressions, and (4) use an AED.

See Appendix E for Evaluation Tips in Teaching Tips.

COMPRESSION-ONLY CPR - SAMPLE GROUP PERFORMANCE CHECKLIST

ACT - Teacher Resource																			
COMPRESSION-ONLY CPR - Sample Group Performance Checklist																			
Student Name																			
For Conscious Casualty Emergency:																			
Check for hazards, identify yourself and ask for permission to help																			
Assess responsiveness																			
Call for help, call 911																			
PLT - position, loosen clothing, talk																			
Prepare for ambulance																			
For Unconscious Casualty - Not Breathing:																			
Check for hazards																			
Assess responsiveness, check for breathing																			
Call for help, call 911, send someone for an AED																			
Start chest compressions (Push hard. Push fast.)																			
Turn AED on																			
Continue CPR while setting up the AED																			
Expose the chest (dry chest, no hair, no medical patches)																			
Put AED pads on																			
Say "stand clear" when prompted and press shock button																			
Start CPR when AED prompts you to																			
Repeat AED sequence when prompted																			