

School District
Automated External Defibrillator (AED)
Program Guidelines



This is basic outline is based on St. Johns County School System's program guide lines and is made available to you by the AED Petition Now Alliance to make it faster, and easier, for you to prepare your own documentation.

Please make sure to read through text carefully and edit the text to fit your needs and your specific program guidelines!

Our information is based on using Cardiac Science AEDs!

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DEFINITION

Automated External Defibrillators (AEDs) are devices that shock the heart to restore a normal heartbeat after a life-threatening irregular rhythm (including sudden cardiac arrest).

Why AEDs in Schools?

It's all about time! For every minute that defibrillation is delayed, survival decreases by 7 percent to 10 percent. If defibrillation is delayed by more than 12 minutes, the chance of survival (in adults) is less than 5 percent. Typically, a child in cardiac arrest would have to wait for experienced medical personnel to evaluate if the rhythm required a shock. What has been shown in adults is that the earlier they receive a shock, the greater the chances for survival.

What are the Chances the School will Need a Defibrillator?

- The risk of cardiac arrest in high school athletes is .5 to 1.0 per 100,000 athletes.
- The risk in the adult population 35 years of age and older is ~1/100 to 1/200.
- The leading cause of death in adults 35 to 40 is sudden cardiac arrest.
- The adult risk is 100 to 200 times the estimated risk in children and adolescents and those under 35.

Source: American Heart Association Policy Statement Summary, American Academy of Pediatrics, Vol. 113, No. 1, January, 2004

LEGAL SUPPORT FOR THE PROGRAM

There are three levels of support for the use of AEDs in our schools. They are the Federal Cardiac Arrest Survival Act and the Good Samaritan Laws.

Federal Cardiac Arrest Survival Act

Federal Statute No. 768.1325 states, "...any person who uses or attempts to use an automated external defibrillator device on a victim of a perceived medical emergency, without objection of the victim of the perceived medical emergency, is immune from civil liability for any harm resulting from the use or attempted use of such device..."

In addition, any person who acquired the device is immune from such liability, if the harm was not due to the failure of such acquirer of the device to:

- Notify the local emergency medical services medical director of the most recent placement of the device within a reasonable period of time after the device was placed.
- Properly maintain and test the device; or

- Provide appropriate training.

Good Samaritan Laws

Specifics for your state.

- Even untrained users of AEDs from liability provided that they act in good faith.
- Even if a victim dies, AED users who have acted in good faith are protected.

ADVISORY COMMITTEE

Membership

An advisory committee has been created to ensure due diligence in choosing equipment, developing policies and procedures, fostering coordination with the first responder community. Committee members included representatives from:

[>>>>>>Your details about Advisory Committeee members.<<<<<<<<]

Committee Tasks

1. Write the professional protocol for use.
2. Establish medical oversight of the program.
3. Exercise due diligence in selection of the unit
 - a. Ease of use
 - b. Pediatric capabilities
 - c. Compatibility with emergency responders
 - d. Price
 - e. Self-checking maintenance
 - f. Warranty, battery life, display case and alarm capability
 - g. Ready kit for CPR & CPR prompts
 - h. Replacement costs for battery and electrodes
 - i. Company response to maintenance issues
 - j. Negotiations for additional resources (replacement pads, CPR Ready Kits, Trainer Units, Tracking Software for Certifications, etc.)
4. Determine location and number of units needed
5. Generate funds (and provide ideas of alternative funding sources)
6. Install units with appropriate signage
7. NOTIFY AND UPDATE LOCATION INFORMATION TO EMS (part of the 911 response call system for each school and work location)
8. Organize the maintenance plan

9. Generate guidelines
10. Provide training opportunities
 - a. Adults
 - b. Students
11. Monitor program (incident reporting, adjustments to program, etc.)

SELECTION OF THE UNITS

The units that we have purchased are safe for children as young as age 1 (following the American Heart Association Guidelines).

[>>>>>>>additional details about selection process>>>>>>>]

INSTALLATION OF UNIT

- We will conduct a site assessment for determining the appropriate location for the units. Determining factors in the selection of the site included: central location, accessibility at all times (no locked doors) and ideally no more than a 3 minute walk from any location, secure, located near a telephone, available to several staff members trained in both CPR and the use of the AED.
- The [your county] Emergency Operations Center (911) will be given a list of the locations for each unit. If a 911 call is received from the school, 911 operators will provide information to the caller about the location of the unit.
- **RISK MANAGEMENT MUST BE CONTACTED FOR PERMISSION TO MOVE THE LOCATION OF ANY UNIT.**

PROTOCOL FOR USE

Indications for AED use:

Upon arrival to a scene of a suspected cardiac arrest, the rescuer must begin the steps of assessing the need for initiation of CPR with integration of the use of an Automated External Defibrillator (AED). The use of an AED is critical for the survival of the cardiac arrest victim. If the victim is assessed to be unresponsive with no pulse, the AED is to be used. Early defibrillation is critical for the following reasons:

- Ventricular Fibrillation (VF) is the most frequent cardiac rhythm in cardiac arrest victims.
- Electrical defibrillation is the most effective method of treatment for VF.
- VF, if left untreated, can quickly convert to asystole within minutes (no electrical activity in the ventricle causes the heart to stop beating).
- If defibrillation is performed within 6-10 minutes of cardiac arrest, the adult or child victim can survive neurologically intact.

Steps for AED use:

1. Assess for unresponsiveness.
2. If victim is unresponsive, call 911 and retrieve the AED.
3. Begin CPR.
4. Remove the AED from the wall-mounted case. NOTE: The alarm will sound when the AED is removed. Someone other than the responder should turn the alarm off.
5. Operate the AED
 - a. Open the case by pressing on the blue button above the arrow. The unit will activate automatically.
 - b. Listen for oral directions. The first direction will be, "Tear open package and remove pads. Peel one pad from plastic liner."
 - c. Attach the AED pads to the victim's bare chest following the directions on the package.
 - d. Follow verbal instructions.
 - i. If SHOCK is indicated the unit will warn the responder to be sure everyone is clear of the victim.
 - ii. If no SHOCK is advised and victim is not breathing, open the AED Ready Kit, begin UNIVERSAL PRECAUTIONS, and administer CPR chest compressions.
 - e. Follow instructions of AED to either SHOCK or perform chest compressions and continue CPR until further medical assistance is available by Emergency Medical Services (EMS).

NOTE: Additional directions for CPR administration and universal precautions may be found in the Emergency Preparedness Chart.

Special Situations in AED use:

1. AED adult electrode pads are used for victims 8 years old or older weighing more than 25 Kg (approximately 55 pounds)
2. AED pediatric electrode pads may be used on children or infants up to 8 years old or up to 55 lbs. (25 kg). If the child appears older or larger, use the adult defibrillation electrodes. The pediatric electrode pads are stored in the back pocket of the AED marked, "spare electrodes."
3. If the victim is in water or covered in water, they must be moved from the source of water or the water dried from the bare chest before the AED pads are placed.
4. If the victim has an implanted Pacemaker (noted by a raised lump about half the size of a deck of cards usually on the left side of the upper chest or abdomen), place the AED pad at least 1 inch to the side of the implanted device.
5. AED pads should not be placed over transdermal medication patches. Remove the medication patch before placing the AED pad to the victim's chest.

Equipment Care:

1. The AED has adult pads connected to the unit. Pediatric pads are stored in the back pocket of the carrying case.
2. Once the pads are used, they must be replaced by a new set. Additional replacement pads can be ordered through Risk Management.
3. Fire and Rescue has a connector cable for downloading the medical response information from the AED.
4. The AED should not leave the schools location where it has been assigned.
5. If the AED unit is moved, immediately notify Risk Management (The location of each unit is shared with the Emergency Operations 911 Center.)
6. Additional information on maintenance may be found in the AED Guidelines Document.

DESCRIPTION OF UNIT

[>>>>>>Important! make description relate to your purchased AED instructions – these instructions are written for a Cardiac Science AEDs and might need to change for your units! >>>>>>]

- A shock *cannot* be administered to an individual that does not have an irregular heartbeat.
- **The operating manual can be found on the CD Rom that is stored in the back pocket of the case. The name of the CD Rom is "Quick Start Tool Kit." The manual contains detailed information on safety, instructions for use, data management, maintenance, troubleshooting, and technical data. The CD Rom also includes a 5-minute demonstration video.**
- Instructive prompts guide the rescuer through each step of the rescue through intuitive voice commands and descriptive text display.

- The unit monitors patient progress and will administer more than one shock – if necessary.
- The unit is safe to use with pacemakers. The unit detects pacemaker pulses for both unipolar and bipolar pacemakers.
- The device actually measures a patient's impedance and makes a decision of what the shock should be. For example, an 11-year-old would receive 176 joules. The pediatric pads will reduce defibrillation energy to a patient to 50 joules. The variable emergency range is 105-360 joules.
- Software inside of the unit records all relevant data related to each use.
- There are two sets of pads in each unit – one designed for children and one for adults. **The pediatric pads are used for ages 1-8 and are stored in the front pocket marked, "spare electrodes."**
- CPR supplies are included in a "ready kit" that is attached to the case.

MAINTENANCE

- A CD Rom provided inside the case of the unit covers basic maintenance issues such as: installing the battery, pads, the Rescue Ready Indicator, Audible Maintenance Indicator and After a Rescue Attempt Directions.
- AUDIBLE ALARM: An audible alarm sounds when the unit is removed from the case. There are two keys for the audible alarm system with each AED unit. In locations where students are present,
 - REMOVE BOTH KEYS FROM THE CASE AND STORE THE KEYS IN 2 SEPARATE LOCATIONS.
 - The general guidelines are that the alarm may be disarmed (using one of the keys) after the initiation of an event. **The key to disarming is to not delay the response.** The person responding to an incident with the AED unit should not be concerned about turning the alarm off.
- WARRANTY AND BATTERY: Cardiac Science has a 7-year warranty on the main unit (an extended life lithium battery) and a 4-year battery warranty. The replacement cost of the battery to the school in 4 years will be approximately \$..... [fill in the correct amount] (estimated cost based on the 2011 purchase price, this cost may be slightly higher.)
- PADS (ELECTRODES): Cardiac Science will replace the pads once every two years. If pads are used in a response to an incident, Cardiac Science will replace the pads. The hourglass symbol with the date on the front cover indicates when the electrodes will need to be replaced.
- MAINTENANCE CHECKS: The Cardiac Science unit performs daily self-checks. The self-test confirms that the battery, electronics, and pre-connected pads are fully functional.
- LOGGING MAINTENANCE CHECKS: The AED Contact/Coordinator will assign a staff member and backup person to perform a daily, monthly and yearly maintenance check on each unit. Each check requires an initial on the AED Maintenance Check sheet by the person providing the daily checks.
 - There is a light on the upper right side of the AED unit. When the light is green, the unit is ready – the battery has an adequate charge, the pads are properly connected and are functional, and the integrity of the internal circuitry is good.
 - If the light is red, a maintenance check is required. Check the AED pads, battery and/or call customer service. Customer Service: [>>>> Phone number Customer Service>>>>] and Risk Management at [phone number]. If the red light comes on, there is also an audible alert every 30 seconds until the lid is opened, or the battery power is depleted. Opening and closing the lid will deactivate the beep. If the next automatic self-test does not correct the error, the beep will be reactivated.
- ADMINISTRATIVE COMPLEXES MAINTENANCE CHECKS: Two individuals per working location should be assigned the responsibility of monitoring the AED unit for maintenance issues.
- A replacement unit will be stored at the [>>>fill in location >>>]. Contact Risk Management as soon as a maintenance issue arises.
- TRAINING

[Your School District name] are encouraged to provide 3 levels of training:

1. Awareness
2. CPR/AED Certification
3. Train the Trainer Certification

Awareness

Every adult and student on campus should be aware of the location of the AED unit(s) and their intended use. The units are stored in highly visible white cases in easily accessible locations. An AED unit should never be behind locked doors when students or adults are present. Schools are encouraged to provide a variety of awareness activities, including but not limited to:

- Instructional television “spots”
- Posting information on fire drill exit maps
- Announcing the availability of the unit before large meetings/gatherings
- Providing written certification of a responsible person for after-hour, sports events and field trips
- A CD Rom inside the front case of the unit provides a video demonstration for how to perform a rescue (Choose training video and click on the “start the video” icon.) The video is 5 minutes long. The school site safety team may decide to ANNUALLY use the demonstration with all teachers and staff on the campus.

CPR/AED Certification - Adults

Effective during the [>>>school year<<<<] school year, all Cardio Pulmonary Resuscitation (CPR) training will include the use of AEDs. All School Resource Officers (SROs) and School Health Technicians must be CPR/AED trained. School personnel are encouraged to participate in CPR/AED and Emergency First Aid Training opportunities. The number of individuals trained in CPR/AED and First Aid will be tracked yearly as part of the Individual School Plan for Emergency Management. RN nurses employed by the district will be required to earn certification to become American Heart Association CPR/AED trainers.

Train the Trainer Certification

As funding permits, the School and the School District will provide opportunities for personnel to receive training as certified trainers. Those individuals will be asked to provide additional trainings for school personnel.

The school may want to pursue additional community resources to provide certification courses on the campus. Resources may include, but not be limited to:

[examples of courses]

PRECAUTIONS/CRITICAL CONCEPTS

- Wet conditions – Make sure the patient and environment are dry.
- Metal surfaces – Make sure the patient is not touching any metal surfaces.
- Combustible materials or hazardous (explosive) environment – Remove the patient, if possible, from an area that presents a hazard.
- Do not touch the patient while the AED is assessing, charging, or shocking the patient (voice prompts on the machine repeat this warning.)
- If the patient has an internal pacemaker/defibrillator, position the pad one hand's width (approximately 5 inches) from the pacemaker/defibrillator site. If the patient has a nitroglycerin patch, position the pads away from the patch.
- Never defibrillate while moving the patient.

Contact Information

Maintenance Issues	[maintenance phone] Customer ID #
General Questions about Policy	Risk Management [phone number]
Replacement Unit - if needed while unit is being repaired	Risk Management [phone number]
To order additional units or accessories	Cardiac Science 1900 Main Street, Suite 700 Irvine, CA 92614 1-800-965-1440 FAX: 1-866-445-5711 Customer Service: 1-800-991-5465
Additional Information on the Company and the unit	http://www.cardiacscience.com/
American Heart Association Emergency Cardiovascular Care Committee: Response to Cardiac Arrest and Selected Life-Threatening Medical Emergencies: The Medical Emergency Response Plan for Schools.	http://circ.ahajournals.org/cgi/content/full/109/2/278

Distribution List for Guidelines

Distribution of Guidelines should include, but not be limited to the following individuals.

- | | |
|---|--|
| 1. School-based Administrators/Deans | 10. Trainers at the School Site |
| 2. Work site Administrators/Managers | 11. School Improvement/Advisory Councils |
| 3. Health Teachers | 12. Grade Level Chairpersons |
| 4. P.E. Teachers/Coaches/Athletic Directors | 13. Extended Day Coordinators/Teachers |
| 5. School Health Technicians | |
| 6. Maintenance Coordinators | |
| 7. Sheriff's Department | |
| 8. Fire and Rescue | |
| 9. Emergency Operations Center | |