

Policy and Procedures for Use of Automatic External Defibrillators (AED) by CTHSS School Personnel and the Development of School AED Emergency Action Plans

Overview:

It has been well demonstrated that use of Automatic External Defibrillators (AEDs) in conjunction with Cardio-pulmonary resuscitation (CPR) increases survival rates after cardiac arrest. According to the American Heart Association, “sudden cardiac arrest (SCA) is a leading cause of death in the United States.... Communities with comprehensive AED programs have achieved survival rates of 40 percent or higher”¹.

In order to assist individuals who experience cardiac arrest on school property, the Connecticut Technical High School System has acquired external defibrillators for use in school buildings and on school grounds. AEDs are available for use in the event of sudden cardiac arrest where CPR is needed before the arrival of Emergency Medical Services (EMS).

The District Medical Advisor has authorized the purchase and use of AEDs for the Connecticut Technical High School System and training is in accordance to standards set forth by the American Heart Association (AHA) and/or the American Red Cross (ARC).

The school nurse oversees the storage, maintenance and use of the AED in her assigned school. The school nurse supervisor will oversee AED storage, maintenance and use of the AED at any CTHSS school site that does not have a school nurse assigned to it.

Pertinent Law and Definitions:

An AED is a device that:

- a. is used to administer an electric shock through the chest wall to the heart;
- b. contains internal decision-making electronics, microcomputers, or special software that allows it to interpret physiological signals, make medical diagnosis, and, if necessary, apply therapy;
- c. guides the user through the process of using the device by audible or visual prompts; and
- d. does not require the user to employ any discretion or judgment in its use.

¹ Sudden Cardiac Arrest – Advocacy. The American Heart Association, May 2011
http://www.heart.org/HEARTORG/Advocate/IssuesandCampaigns/Sudden-Cardiac-Arrest---Advocacy_UCM_312652_Article.jsp

School-Based Responders

A school-based responder is any employee trained in CPR and AED who voluntarily elects to place his/her name on the school-based responder list and has signed the Acknowledgement of Receipt and Review of AED Policies and Procedures and School AED Emergency Action Plan Form (Appendix A) and provided the school nurse with a copy of a current CPR/AED certification.

CGS. Sec. 10-212d Availability of AEDs in Schools & Emergency Action Response Plans for Life-Threatening Emergencies:

State of Connecticut Statutes require that each local and regional board of education shall have at each school under the board's jurisdiction: (1) An Automatic external defibrillator; and (2) school personnel trained in the operation of such automatic external defibrillator and the use of cardiopulmonary resuscitation. The automatic external defibrillator and school personnel trained in the operation of an automatic external defibrillator and the use of cardiopulmonary resuscitation shall be accessible during the school's normal operational hours, during school-sponsored athletic practices and athletic events taking place on school grounds and during school sponsored events not occurring during the normal operations of the school.

Each school shall develop an emergency action response plan that addresses the appropriate use of school personnel to respond to incidents involving an individual experiencing sudden cardiac arrest or similar life-threatening emergency while on school grounds (see template, appendix E).

Each school with an athletic department or organized athletic program shall develop an emergency action response plan that address the appropriate use of school personnel to respond to incidents involving an individual experiencing sudden cardiac arrest or similar life-threatening emergency while attending or participating in the athletic practice or event while on school grounds (see template appendix E).

A board of education shall not be required to comply with the provisions this section if funding is not available to such local and regional board of education to purchase an automatic external defibrillator and pay for the training of school personnel described.

A local and regional board of education may accept a donation of an automatic external defibrillator that meets the standards established by the United States Food and Drug Administration and is in compliance with the device manufacturer's maintenance schedule. A local and regional board of education may accept gifts, grants and donations, including in-kind donations designated for the purchase of an automatic external defibrillator and for the costs incurred to inspect and maintain such device and train staff in the use of such device.

CGS. Sec. 52-557b Good Samaritan Law

A person licensed as a Registered Nurse or any other person operating a cardiopulmonary resuscitator or a person trained in cardiopulmonary resuscitation in accordance with the standards set forth by the American Red Cross or American Heart Association, or a person operating an automatic external defibrillator, who, voluntarily and gratuitously and other than in the ordinary course of such person's employment or practice, renders emergency medical or professional assistance to a person in need thereof, shall not be liable to such person assisted for civil damages for any personal injuries which result from acts or omissions by such person rendering the emergency care, which may constitute ordinary negligence.

CTHSS AED Policy & Procedures

Each CTHSS school must maintain at least one AED on its premises.

CPR/AED Certification

The Connecticut Technical High School System requires that all school nurses maintain a valid American Red Cross (ARC) or American Heart Association (AHA) approved CPR/AED for the Professional Rescuer Certification. All trade/technology teachers and athletic coaches are required to be first aid and CPR/AED certified. In addition, staff members in each school are certified to teach CPR/AED. CPR/AED training equipment has been purchased by the CTHSS. Any staff person interested in obtaining CPR/AED certification is encouraged to do so.

Development of a School AED Emergency Action Plan

Each CTHSS school will develop an AED emergency action plan to address the appropriate use of school personnel to respond to incidents involving any individual (student, staff, client, visitor) experiencing sudden cardiac arrest or other life-threatening emergency on occurring on school grounds during the normal school day, and must include a plan for AED emergency action when a school nurse is not in the building or immediately available. This plan will also address the appropriate use of AED equipment and school personnel to respond to incidents involving an individual experiencing sudden cardiac arrest or other life-threatening emergency that occurs during adult education program classes held on school grounds outside of regular high school hours, physical education (PE) classes held off of school grounds, and school sponsored activities held on school grounds.

This plan will also address the appropriate use of AED equipment and school personnel to respond to incidents involving an individual experiencing sudden cardiac arrest or similar life-threatening emergency while attending or participating in the athletic practice or athletic event while on school grounds.

This plan will be developed in accordance with all current CTHSS policies and procedures and will be developed by a multidisciplinary team. It is recommended that the team consist of, at minimum, a school administrator, the school nurse, the athletic director, a health/PE instructor, and a trade/trade technology teacher, an adult education instructor.

Storage of AEDs and use by EMS personnel and Lay Responders

1. The AEDs are strategically placed and readily accessible to provide rapid utilization. Locations are determined by the individual school.
2. All AEDs will be maintained in an unlocked alarmed cabinet.
3. AEDs are designed to be used by lay responders and may be put into service outside of regular school hours by anyone using the building.

4. AED pads are universal in nature and EMS personnel may choose to plug already applied pads into their own device for transport of a victim. They may also choose to transport the victim attached to the school's AED. If this occurs, the school nurse supervisor must be notified as soon as possible after the incident, so that pads may be replaced and follow-up on the return of school equipment can occur.
5. An AED unit will not be removed from its alarmed box for purpose of training or testing staff/students in its use. AED trainers are available for this purpose and may be obtained by contacting the school nurse supervisor
6. An AED unit will not be removed from its alarmed case for the purpose of having it on the sideline of an athletic practice or event. In the event that an AED has been donated to or purchased specifically for use by a school's athletic program, the school athletic director, a school administrator and the school nurse will collaborate on the development of a school policy/procedure specific to the athletic department's AED prior to it being put into service.
7. Other than in an emergency situation, the AED will not be removed from its alarmed case without notifying the school nurse and posting a notice as to the location of the AED.

Purchase and Registration

The local office of emergency medical services must be notified when a new AED unit is being placed into service (Appendix D). The purchase of AED equipment will be coordinated through the CTHSS Central Office. Any organization wishing to donate AED equipment or funds to purchase AED equipment to a CTHSS school or athletic program must be referred to the district's school nurse supervisor.

Monthly AED Checks

The school nurse or designee checks the defibrillator on a monthly basis or more frequently in accordance with the manufacturer's instructions. The school principal, in collaboration with the school nurse, will identify an individual who will perform the check during the month of July, when school is not in session. These checks will be documented on the AED Monthly Check Log (Appendix C).

The monthly check includes:

- a. Verification that the unit is in the proper location, that it has all the appropriate equipment (case, resuscitation mask, emergency pack, electrodes).
- b. A check of the expiration date printed on the electrode package.
- c. Verification that the unit has performed its self-diagnostic evaluation, as per manufacturer, and that no warning lights are displayed.
- d. Verification that the clip board containing the monthly AED Log (Appendix B) and AED Event Log (Appendix C), is hanging near the AED

The school nurse or designee is responsible for notifying the school nurse supervisor of the need for replacement equipment and supplies and of any repair or service needed.

School Nurse Responsibilities

The school nurse will:

1. Maintain current American Red Cross (ARC) or American Heart Association (AHA) approved CPR/AED for the Professional Rescuer certification and submit proof of certification to the school nurse supervisor.
2. Notify local Emergency Medical Services (EMS) of any new AED being put into service (Appendix C)
3. Provide general oversight over the school's AED program.
4. Review the location of AED(s) and general medical emergency procedures with staff on a yearly basis.
5. Make an annual request for volunteers for the school-based responder list.
6. Review CTHSS AED Policy and Procedure and the School AED emergency action plan with school administrators and school-based responders.
7. Maintain copies of the school-based responders' CPR/AED certifications and copies of signed Acknowledgement of Receipt and Review of AED Policies and Procedures and School AED Emergency Action Plan forms.
8. Notify the school nurse supervisor of CPR/AED training needs for the school.
9. Keep current with CTHSS AED policy and procedure and notify the school nurse supervisor of the need for revision.
10. Review changes in AED policy and procedure with school-based responders and administrators.
11. Complete or assist a school-based responder to complete the Event Summary form (appendix D) any time the AED is removed from its case, even if not applied to the victim, except when it is removed from the case for routine inspection.
12. Submit a copy of the Event Summary form to the principal of the school and school nurse supervisor, as soon as possible, after the event.
13. Oversee AED maintenance and compliance with monthly checks.
14. Work with administration and key stakeholders in the school and community to assure adequate emergency management plans are in place
15. Oversee medical emergency drills as necessary

School Nurse Supervisor's Responsibilities

The school nurse supervisor will:

1. Maintain current American Red Cross (ARC) or American Heart Association (AHA) approved CPR/AED for the Professional Rescuer certification
2. Provide general oversight over district AED program.
3. Obtain medical authorization for all new AED equipment from the district medical advisor.
4. Order replacement AED equipment and supplies in a timely fashion
5. Arrange for the repair and service of the AED in a timely fashion
6. Maintain copies of school nurse CPR/AED certification
7. Obtain AED authorization from the district medical advisor
8. Conduct an annual review and revise the AED policy as needed.
9. Review all AED Event Summary Forms and notify a district administrator of findings as soon as possible after an event
10. Collaborate with key stakeholders in the SDE, CTHSS, and community to assure adequate district wide emergency management plans are in place.
11. Collaborate with the school nurses, school and district administrators, educational consultants and community providers to assure that adequate opportunities for CPR/AED certification and first aid training exist for school administrators, school nurses and school staff.

School-Based Responder's Responsibilities:

- Maintain current AHA or ARC approved CPR/AED certification and submit proof of certification to the school nurse.
- Sign the **Acknowledgement of Receipt and Review of AED Policies and Procedures and School AED Emergency Action Plan** form (appendix A) indicating that you have reviewed and had the opportunity to ask questions about the documents. It is only necessary to sign this form once per CTHSS work location.

- Obtain clarification from the school nurse on the district's AED policy and procedure and/or the school's response plan, as needed.
- Keep current with revisions to the CTHSS AED policy.
- Defer control of the scene to the school nurse or EMS upon the arrival of either at the scene of the emergency
- Notify the school nurse of a desire to remove your name from the school-based responder's list at any time.
- Complete an Event Summary form (Appendix D), with the assistance of the school nurse if necessary, following activation of the AED.

General Procedures for AED Use during Regular School Hours:

1. Stay with victim.
2. Call (or send someone to call) for the school nurse and an administrator, provide as much detail about the emergency as possible
3. Offer first aid, as trained, and prepare to begin CPR if needed.
4. Send someone for AED if it is not at the scene of the emergency.
5. Activate 911
6. A school-based responder, administrator or school nurse may direct any student or staff to obtain the AED and bring to the scene of the emergency.
7. AEDs must only be used in medically appropriate circumstances, in accordance with training.
8. As soon as possible after activation of the AED, the school nurse will notify an administrator (if not present at the scene) and the school nurse supervisor.
9. The school nurse or school-based responder will complete an event summary form following activation of the AED during an emergency. The form will be forwarded to the principal and school nurse supervisor within 48 hours of the event.
10. When the school nurse is not on site during an event or unable to respond to an event, the school nurse will collaborate with local EMS, a school administrator, and/or the school-based responder, as applicable, to complete the event summary form.
11. In the absence of the School Nurse, a school-based responder will notify an administrator of the event. The administrator will notify the school nurse, the school nurse supervisor and a superintendent as

soon as possible after the event.

12. Submit an incident report when applicable.

DRAFT

Connecticut Technical High School System
Notification of New AED unit

To: Local Office of Emergency Medical Services

From: , School Nurse

I would like to notify you that Technical High School has obtained an AED for use at the following address: . The District Medical Advisor overseeing our AED program is Dr. Ann Milanese.

The AEDs will be strategically placed and readily accessible to trained school staff during the regular school day and school sponsored activities. The AED will also be available for public use during events taking place at our school outside of regular school hours.

AED Manufacturer:

Model:

Please don't hesitate to call me at , if you have questions.

Sincerely,

School Nurse

Please print on school letterhead.

Connecticut Technical High School System Automatic External Defibrillator Event Summary

Name and Title of person completing this report: _____

Date report was completed: _____

Type of Event: AED brought to scene of emergency, but not applied to victim
 AED was applied to victim

Victim was: a student staff person visitor unknown

AED was activated: during regular school hours outside of regular school hours during a school sponsored practice, game or event outside of regular school hours during a non-school sponsored event.

AED was activated by school nurse school staff or coach _____

Other: _____

Name of victim if known: _____ DOB: _____

Date and time the event began: _____ Time EMS activated: _____

The school nurse was was not in the building at the time of the event

An administrator was was not in the building at the time of the event

Describe events in chronological order: _____

Information for this report was obtained from the following individuals/agencies: _____

School Nurse: _____ Date: _____

School Administrator: _____ Date: _____

School Nurse Supervisor: _____ Date: _____

Please attach all applicable documentation (i.e.: nursing notes, Incident reports, etc.) to this form

Connecticut Technical High School System
 Template for School AED Emergency Action Plan and
 Athletic Department Emergency Action Planⁱ

School: Location of AED(s):

I. Purpose

To establish an action plan for using school personnel to respond to a student, staff person or visitor experiencing a medical emergency, including sudden cardiac arrest or similar life-threatening emergency, during the regular school day and during school sponsored athletic events held on school grounds. The AED may also be activated by any individual in response to sudden cardiac arrest or similar life-threatening emergency occurring on school grounds outside of normal school hours.

II. Training

The school nurse will maintain American Red Cross (ARC) or American Heart Association (AHA) approved CPR/AED for the professional rescuer certification. PE/Health Instructors and trade/technology instructors and coaches will maintain ARC or AHA approved CPR/AED certification and First Aid certification.

III. Type of Medical Emergency

- Sudden Cardiac Arrest – Follow “Indications for AED Use” in section VI of the plan.
- Other Medical Emergencies – Responder should provide only the victim care that is consistent with his/her training.

IV. School Based Responders:

The following individuals, in addition to the school nurse, have been trained in CPR/AED and have voluntarily agreed to have their names placed on the school-based responder list for the _____ to _____ school year.

	Name	Title	Contact information
1			
2			
3			
4			
5			
6			
See attached for additional school based responders			

V. AED Emergency Action Plan Activation during Regular School Hours and During School Sponsored Events Held on School Grounds Outside of Regular School Hours.

- In the event of a sudden cardiac arrest or similar life-threatening emergency, do not leave the victim and contact the school nurse (contact method:) and an administrator (contact method:).

Provide the following information:

Type of emergency

Location of the emergency

- If the school nurse is not in the building or not available, the administrator or designee will contact a school-based responder from the above list. If the emergency occurs during a school sponsored event held outside of school hours on school grounds and no school-based responder is onsite, the administrator or designee will immediately contact 911. As stated earlier, the AED may also be activated by any individual in response to sudden cardiac arrest or similar life-threatening emergency occurring on school grounds outside of normal school hours.
- A school-based responder may independently initiate care at any time he/she deems necessary in response to sudden cardiac arrest or similar life-threatening emergency in the absence of the nurse or an administrator. Upon arrival of the school nurse on the scene, the school-based responder will supply the school nurse pertinent history and release control of the scene to the school nurse.
- The school nurse or an administrator (or their designee at the scene) or a school-based responder, in the absence of the school nurse or administrator, will call 911 and provide the following information:

Type of emergency

Address of the emergency

Phone number calling from

Any additional information required by the operator

- The school nurse, an administrator or any school based responder may direct a staff person or student to obtain equipment such as the AED and emergency bag and may direct staff members to institute crowd control, to serve as a recorder of events or to meet EMS personnel and direct them to the scene.
- Procedure for use of the AED is located in section VII of this document.

- will call a 2nd CPR/AED certified person to the scene from the list of school-based responders.
- Upon arrival of EMS the school nurse or school-based responder will provide EMS personnel with pertinent history and release control of the scene.
- The school nurse or an administrator or their designee will notify the victim's emergency contact (when this information is available) of the incident and of the hospital that victim is being transported to.

VI. Plan for activation of AED during PE classes held at an offsite athletic facility/field

n/a, we do not use offsite athletic facilities/fields

1. Method of communication for medical emergencies when offsite:
2. Contact:
3. Contact:
4. Contact:
5. The school nurse, a school-based responder and an administrator will respond with AED and emergency kit to offsite athletic field
6. Other:

VII. Emergency Medical Response Plan Activation during Adult Education Program Classes Held on School Grounds Outside of Regular High School Day :

n/a, there are no evening adult education programs at this site.

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VIII. Athletic Department Plan for Use of School Personnel to Respond To Incidents Involving an Individual Experience Sudden Cardiac Arrest or Similar Life Threatening Emergency While Attending or Participating in an Athletic Practice or Game

- All CTHSS coaches maintain ARC or AHA approved CPR/AED certification as part of the coaching certification process.
- The AED will be maintained in its alarmed cabinet at all times and will not be brought to the sidelines of a practice or athletic event, except in the event of an emergency.
- The AED will not be removed from school grounds for “away” events.
- In the event of a sudden cardiac arrest or similar life-threatening emergency any coach may activate the AED.
- The coach or designee will call 911 and provide the following information:

Type of emergency
Address of the emergency
Phone number calling from
Any additional information required by the operator

- The coach or athletic director may send a staff person, student or other person familiar with the location of emergency supplies to obtain equipment such as the AED and emergency bag and may direct other adults to institute crowd control, to serve as a recorder of events or to meet EMS personnel and direct them to the scene.
- Procedure for use of the AED is located in section VII of this document.
- The coach or his/her designee will contact the athletic director and an administrator as soon as possible and advise them of the emergency.
- Upon arrival of EMS the coach will provide EMS personnel with pertinent history and release control of the scene.
- The coach, athletic director or an administrator will notify the victim’s emergency contact (when this information is available) of the incident and of the hospital that victim is being transported to.

IX. Procedure

- a. Assess scene safety. Is the scene free of hazards?
Rescuer makes sure there are no hazards to them. Some examples are:
- Electrical dangers (downed power lines, electrical cords, etc.)
 - Chemical (hazardous gases, liquids or solids, smoke)
 - Harmful people (anyone that could potentially harm you)
 - Traffic (make sure you are not in the path of traffic)
 - Fire, flammable gases such medical oxygen, cooking gas, etc.

- b. Determine if victim:
- is Unconscious
 - not Breathing
 - has No Signs of Circulation

- c. Apply the AED if the victim is
- not responding
 - not moving
 - not breathing normally
 - not breathing at all.

Note: If in doubt, apply the AED

- d. Place the AED near the victim
- e. Press the ON/OFF button to open the lid and turn on your AED. Remain calm. Your AED will guide you through the defibrillation process.
- f. Expose the victim's chest. If the chest is excessively hairy, quickly shave the hair in the area where you will place the pads. If the chest is dirty or wet, wipe the chest clean and dry. If there are medicine patches on the victim's chest, remove them.
- g. Hold down the left side of the electrode packet with one hand and pull the red packet handle down with the other. Tear open the packet completely to remove the pads. A small piece of the packet will remain attached to your AED.
- h. Separate the electrode pads, one at a time, from the blue plastic.
- i. Apply the electrode pads to the victim's bare chest (exactly as shown in the picture on the pads). Be sure to press firmly so that the pads completely adhere to the victim's chest.

Note: Be sure you do not place the electrode pads over an implanted device such as an implanted pacemaker or other device. An indication of an implant is a protrusion in the chest

skin and a scar. If you are in doubt, apply the pads as shown on the labels.

- j. Listen to voice instructions and do not touch the victim unless instructed to do so. If the AED heart rhythm analysis determines that a shock is needed, the AED will announce *PREPARING TO SHOCK*, and then instruct you to *PRESS FLASHING BUTTON* to administer a shock (semiautomatic model) or it will announce *PREPARING TO SHOCK*, and then automatically administer a shock without requiring further action (fully automatic model). Administer CPR as directed by voice prompts.

Note: Do not touch the victim while a shock is delivered.

- k. Do not remove the pads or disconnect them from the AED until emergency medical personnel arrive. If the victim starts moving, coughing, or breathing regularly, place the victim in the recovery position (as instructed in CPR training) and keep him or her as still as possible.
- l. When emergency medical personnel arrive, tell them what actions you have taken. Tell them how long the victim has been unconscious, if you delivered shocks, the number of shocks delivered, and if you performed CPR. Do not worry if you cannot recall precisely what happened. Your AED makes a digital recording of heart rhythms and shocks that can be transferred to a computer at a later time.
- m. Refer to AED manual for instructions on caring for your AED following use.
- n. Complete Automatic External Defibrillator Event Summary and notify the School Nurse Supervisor of the event.

ⁱ Adapted from LIFEPAK CR Plus and LIFEPAK EXPRESS Defibrillator Operating Instructions (2009) and Cardiac Science Sample Emergency Medical Response Action Plan (Rev A)