

 <b>CITY OF TUCSON</b>	<b>City of Tucson</b> Central Safety Services Number: S-026 Subject:	Page 1 of 9
	<b>Automated External Defibrillator (AED)</b>	Effective Date: September 21, 2004
		Reviewed/ Revised: September 9, 2013

### 1.0 PURPOSE

To increase the rate of survival for people within City facilities who may suffer from sudden cardiac arrest. This will be done by establishing an Automated External Defibrillator (AED) Program and instituting protocols for the use of an AED by City of Tucson employees.

### 2.0 SCOPE

This program applies to all persons working at facilities under City of Tucson responsibility where an AED is present. The policies and procedures contained in this section are intended to assist in identifying and complying with regulations and rules set forth by the Arizona Revised Statutes Title 36 Public Health and Safety, Article 36-2262 and 36-2263, Automated External Defibrillators; use; requirements; Civil liability; limited immunity and good Samaritan, and the Occupational Safety and Health Administration Code of Federal Regulations (CFR) 1910. In all cases where there is a difference between specific standards and polices set forth in this procedure, the stricter of the two shall prevail.

### 3.0 DEFINITIONS

**AHA:** American Heart Association

**Automated External Defibrillator (AED):** Means a medical device heart monitor and defibrillator that;

- a. is approved for premarket modification by the United States Food and Drug Administration;
- b. Is capable of recognizing the presence or absence of ventricular fibrillations or rapid ventricular tachycardia and is capable of determining, without intervention by an operator, if defibrillation should be preformed;
- c. Automatically charges and delivers an electrical impulse to a person's heart to restore a viable cardiac rhythm.

**CPR:** Cardio Pulmonary Resuscitation

**Defibrillation:** Means the administration of a controlled electrical charge to the heart to restore a viable rhythm.

**EMS:** Emergency Medical Services, i.e. Tucson Fire Department Paramedics.

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**Lay Rescuer:** Means a person trained to provide cardiopulmonary resuscitation and to use an automatic external defibrillator, and who is participating in a physician or medically authorized automated external defibrillator program.

**Medical Director:** Means a physician who is licensed pursuant to Arizona Revised Statutes, Title 32, Chapter 13 or 17, and who provides medical oversight services pursuant to Arizona Revised Statutes Title 36-2262

**Sudden Cardiac Arrest (SCA):** When the electrical impulses of the human heart malfunction causing ventricular fibrillation, an erratic and ineffective rhythm, characterized by the absence of a pulse and respirations.

#### 4.0 RESPONSIBILITY

##### A. Human Resources/Central Safety Services

1. Central Safety Services will be responsible for overseeing the AED Program in coordination with the Medical Director. Central Safety Services will assist the Medical Director in coordinating the program with the local EMS (Emergency Medical Services).
2. Central Safety Services will coordinate training in the specific use of an approved CPR technique by providing a CPR/AED Course or an equivalent course that meets or exceeds the same objectives as outlined by the AHA or approved by the City of Tucson's Medical Director to potential lay rescuers. Training in the use of the equipment and preventative maintenance will also be provided during the CPR/AED Course. Summary of Lay Rescuer CPR for adults, children and infants are found in **Appendix A**.
3. Central Safety Services will provide AED Use Forms (**Appendix B**) to lay rescuers who shall complete the form after the operation of an AED.
4. Central Safety Services will be responsible for notifying the Medical Director within 24 hours of an AED being used once we are notified.
5. Central Safety Services, with information from and in coordination with the General Services Department, Architectural and Engineering Division, shall be responsible for determining the placement of an AED in new city facilities. Departments may choose to procure additional AED units (at Department expense) however the units must be approved by Central Safety Services to insure compatibility with the Tucson Fire Department's equipment and the AED training program. Each AED shall be mounted in accordance with the American with Disabilities Act (ADA) guidelines.
6. When individual departmental purchases are made, Central Safety Services shall be notified and are responsible for determining the placement of the AEDs in their facility. The department must have at least one lay rescuer at the facility where the AED is to be located, and comply with all terms and

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conditions of AED usage. Each AED shall be mounted in accordance with the American with Disabilities Act (ADA) guidelines.

7. Central Safety Services will be responsible for maintenance to the AED including repair, replacement of batteries, replacement of electrodes and post use check prior to putting the AED back into service.

#### **B. Oversight Physician's Responsibility**

1. The Medical Director is Dr. Ben Bobrow, MD., Arizona Department of Health Services Bureau of Emergency Medical Services and Trauma System's Medical Director. <http://www.azshare.gov>
2. The oversight physician shall be responsible for all aspects of the program for the City of Tucson. The physician shall work with Central Safety Services to ensure that all AED use requirements are met.
3. The Medical Director shall:
  - a. Establish quality assurance guidelines that include a review of each use of the AED by a lay rescuer to evaluate performance;
  - b. Be proficient in EMS protocols, CPR and the use of AEDs;
  - c. Ensure that each lay rescuer receives training in CPR and the use of an AED every 2 year;
  - d. Ensure that the AED is maintained and tested according to the manufacturer's guidelines.

#### **C. Department Responsibility**

1. Departments are responsible for identifying personnel who will be trained in basic life support (CPR) to become lay rescuers, and notify Central Safety Services of completed training. The lay rescuer will be required to undergo training on proper CPR techniques, and the use of AEDs.
2. Departments are responsible to inspect the AEDs located at their facilities on a monthly basis to ensure they are working properly (**Appendix C**). If any service or low battery indicators are shown in the handle, Central Safety Services will be contacted immediately.
3. When an incident occurs, the department will be responsible for ensuring that the care of the patient is transferred to EMS personnel and that the AED unit is retrieved from EMS. **NOTE: Disposable pads and wires may be transferred with the patient at EMS request.**

#### **D. Employee Responsibility**

1. Lay rescuers who may use an AED on a person in cardiac arrest shall:
  - a. Complete a CPR/AED Course or an equivalent course that meets or exceeds the same objectives as outlined by the AHA or approved by the Medical Director;

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- b. Call 911 to activate Emergency Medical Services as soon as possible (**If calling from a city phone dial 911 or 9-911**);
- c. Notify Central Safety Services of the use of an AED after the care of the patient has been transferred to EMS. Central Safety Services can be contacted at 837-4308 or 837-4309 during normal business hours, or City communications after business hours (791-4144);
- d. Complete an AED Use Form to the Central Safety Services within 24 hours. (**Appendix B**)

## 5.0 Education and Training

- A. Lay rescuers shall receive and complete a CPR/AED Course or an equivalent course that meets or exceeds the same objectives as outlined by the American Heart Association (AHA) or approved by the Medical Director.
- B. Lay rescuers shall re-certify every 2 years in a CPR/AED Course or an equivalent course that meets or exceeds the same objectives as outlined by the AHA or approved by the Medical Director.

## 6.0 General

### A. Liability

1. The following persons and entities are not subject to civil liability for any personal injury that results from any act or omission that does not amount to willful misconduct or gross negligence if that person or entity complies with the requirements of section Arizona Revised Statutes 36-2263:
  - a. A physician who provides supervisory services;
  - b. A person or entity that provides training in CPR and the use of an AED;
  - c. A person or entity that acquires an AED;
  - d. The owner of the property or facility where the AED is located
  - e. Trained Lay Rescuer.
2. Arizona Revised Statutes 32-1471 states that any health care provider licensed or certified to practice as such in this state or elsewhere, or a licensed ambulance attendant, driver or pilot as defined in section 41-1831, or any other person who renders emergency care at a public gathering or at the scene of an emergency occurrence gratuitously and in good faith shall not be liable for any civil or other damages as the result of any act or omission by such person rendering the emergency care, or as the result of any act or failure to act to provide or arrange for further medical treatment or care for the injured persons, unless such person, while rendering such emergency care, is guilty of gross negligence.

## 7.0 Advice and Counsel

Central Safety Services, Human Resources, shall provide advice and counsel on this procedure.

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**APPENDIX A**-Summary of Lay Rescuer CPR for Adults, Children and Infants

**APPENDIX B**-AED Use Form

**APPENDIX C**-Monthly AED Inspection Form

**Arizona Department of Health Services/Bureau of Emergency Medical Systems:**  
<http://www.azshare.gov/index.htm>

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## Appendix A Summary of Lay Rescuer CPR for Adults, Children and Infants

Component	Recommendations		
	Adults	Children	Infants
<b>Recognition</b>	Unresponsive (for all ages)		
	No breathing or no normal breathing (ie, only gasping)	No breathing or only gasping	
	No pulse palpated within 10 seconds for all ages (HCP only)		
<b>CPR sequence</b>	C-A-B		
<b>Compression rate</b>	At least 100/min		
<b>Compression depth</b>	At least 2 inches (5 cm)	At least $\frac{1}{2}$ AP diameter About 2 inches (5 cm)	At least $\frac{1}{2}$ AP diameter About 1½ inches (4 cm)
<b>Chest wall recoil</b>	Allow complete recoil between compressions HCPs rotate compressors every 2 minutes		
<b>Compression interruptions</b>	Minimize interruptions in chest compressions Attempt to limit interruptions to <10 seconds		
<b>Airway</b>	Head tilt–chin lift (HCP suspected trauma: jaw thrust)		
<b>Compression-to-ventilation ratio (until advanced airway placed)</b>	30:2 1 or 2 rescuers	30:2 Single rescuer  15:2 2 HCP rescuers	
<b>Ventilations: when rescuer untrained or trained and not proficient</b>	Compressions only		
<b>Ventilations with advanced airway (HCP)</b>	1 breath every 6-8 seconds (8-10 breaths/min) Asynchronous with chest compressions About 1 second per breath Visible chest rise		
<b>Defibrillation</b>	Attach and use AED as soon as available. Minimize interruptions in chest compressions before and after shock; resume CPR beginning with compressions immediately after each shock.		

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**APPENDIX B**

**SHARE PROGRAM AED USE FORM  
Bureau of Emergency Medical Services & Trauma System  
Arizona Department of Health Services**

**This form is to be completed immediately after a cardiac arrest occurs at your facility or the AED is used on a patient, and the emergency has been stabilized. The main lay rescuer at the scene shall contact Central Safety Services immediately:**

**City of Tucson/Human Resources/Central Safety Services  
Attn: Maria Robinson  
255 W. Alameda, 5<sup>th</sup> Floor East  
Tucson, AZ 85701  
Ofc. #837-4312 8am-5pm  
City Communications #791-4144 (After Business Hours)**

Property/Business/Individual Name: \_\_\_\_\_

Location of AED use (Address) : \_\_\_\_\_

AED use occurred in which Arizona county: \_\_\_\_\_

AED Serial Number: \_\_\_\_\_

Is the AED registered with the SHARE Program? YES  NO

Incident Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Estimated Time of Collapse: \_\_\_\_\_

Patient Name: \_\_\_\_\_

Gender: Male  Female  Age: \_\_\_\_\_

Employee  Customer  Guest  Employee Family

Other, please specify: \_\_\_\_\_

1. Where on your property did this incident occur?

\_\_\_\_\_  
(i.e. kitchen, lobby, single office, outdoor grounds, restroom, 6<sup>th</sup> hole, club house, etc.)

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2. Was this incident witnessed by anyone? YES  NO

3. Who witnessed? Employee/Co-worker  Friend  Family  Stranger

Doctor/Nurse/Paramedic Other: \_\_\_\_\_

4. Was conventional CPR or Hands-Only (Compression-Only) CPR performed before the AED was connected to the patient? Conventional CPR  Hands-Only

5. Did the AED instruct you to shock? YES  NO  If yes, number of shocks \_\_\_\_\_

6. Was the patient transported from your property by ambulance? YES  NO   
If yes, which Fire Department or Ambulance Company:

\_\_\_\_\_

7. Name of destination hospital, if known:

\_\_\_\_\_

8. Did the patient exhibit any of the following after collapse and prior to departure from your property?

Pulse  Breathing on own  Eye opening  Confusion/combativeness

Vomiting  Moving arms/legs  Talking

9. Do you have any questions or would you like to review this AED use with the Bureau of EMS & Trauma System medical direction representative? YES  NO

Person completing form: \_\_\_\_\_ Title: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Best time to call you: \_\_\_\_\_

**Please FAX completed form to: Paula Brazil at (602) 364-3568**

This data is the property of the Arizona Department of Health Services/Bureau of Emergency Medical Services & Trauma System.

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**APPENDIX C**



**Central Safety Services**

**AED Monthly Inspection Check sheet**

Below are the instructions on how to make sure your facility has a working AED. Your facility should have one of the listed, but will possibly have both.

**Check your AED monthly.**

**LIFEPAK® 500 Automated External**



**Defibrillator**

<b>Unit Serial Number:</b> <b>Battery Expiration Date:</b> <b>Electrode Expiration Date:</b>	<b>Location:</b>								<b>Year:</b>			
<b>MONTH</b>	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>
Check to make sure "OK" is visible on the handle												
IF "OK" is not visible on the handle refer to the Trouble Shooting Table												

**PHILIPS**

**HeartStart FRx Defibrillator**

<b>Unit Serial Number:</b> <b>Battery Expiration Date:</b> <b>Electrode Expiration Date:</b>	<b>Location:</b>								<b>Year:</b>			
<b>MONTH</b>	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>
Open Unit and check to make sure "green light" is blinking												
If green light is not blinking refer to the Trouble Shooting Table												

<b>TROUBLESHOOTING</b>	<b>Contact:</b> <b>Maria Robinson</b> <b>(W) 837-4308</b> <b>(C) 850-6008</b>  <i>Maria.Robinson@tucsonaz.gov</i>
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