

FREQUENTLY ASKED QUESTIONS

Automated External Defibrillators (AEDs)



Q: How does an AED work?

AEDs (Automated External Defibrillators) are simple to use as the operator is directed through audible prompts. A microprocessor inside the defibrillator analyzes the victim's heart rhythm through adhesive electrodes and advises whether a shock is needed. AEDs advise a shock only to ventricular fibrillation and fast ventricular tachycardia, the most common lethal rhythms during sudden cardiac arrest (SCA). Once a lethal rhythm is detected, an electric current is delivered through the victim's chest wall through the adhesive electrode pads. The defibrillator will not charge unless it detects a "shockable" rhythm and therefore, will not allow an unadvised shock to be delivered. A responder cannot shock a victim inappropriately.

Q: What do the Good Samaritan Laws provide?

Good Samaritan Laws provide protection to those who establish Public Access Defibrillation Programs, administer AEDs for life saving interventions, and those who use CPR. The laws can vary from state to state and may be simple protections to thorough detailed program requirements.

Arizona Good Samaritan Laws specifically protect persons from the use of CPR, AEDs, those who establish PAD programs, and those owners of buildings that carry AEDs from civil liability for any personal injury that results from the use of such. As long as no negligent intent or willful misconduct is present. The law does not protect against an improperly maintained AED, so it is important that those establishing an AED program have a regular maintenance program in place. This usually requires the frequent self-checking of the AED and replacement of parts as needed.

Q: What is the difference between PAD Programs and First Responder AED Programs?

AEDs are the actual machines that are used to defibrillate victims of sudden cardiac arrest. The terms AED (Automated External Defibrillator) and PAD (Public Access Defibrillation) are often used interchangeably when referring to first responder programs. AED programs include PAD programs, but also may include other programs, such as those associated with businesses, airports, or other locations where lay responders are not a part of the response team.

Q: What are the essential parts of an AED Program?

Each AED program should include the following major elements:

- Support of the Program by company and/or community leadership.
- On-going program medical direction and oversight.
- Cardiopulmonary Resuscitation (CPR) or Continuous Chest Compression (CCC) training/refreshers training and certification for designated personnel.

- Training/refresher training for designated personnel in the use of the AED and its accessories.
- Development of a written policy and procedure specific to each site.
- Continued review of the policy and procedure.
- Development of a Notification System to activate First Responders.
- Program integration with all parties involved, including employees, students, facility security and Emergency Medical Services (EMS) Systems.
- Regular Maintenance Programs for hardware and support equipment in between and after each use.
- Development and utilization of a Quality Assurance Program and AED Data/Information Management Systems.
- Periodic review of new technologies.
- Maintenance records and record keeping.
- A Program Manager to oversee the PAD and provide oversight.
- Contact records for those responsible for the AED, the PAD program, and those certified in its use.

Q: Are protocols or standard operating procedures necessary for a successful AED Program?

Establishing guidelines and procedures will enable those involved in the AED program to have a clearer understanding of the AED and its use. Written protocols are each organizations responsibility and allow that organization to layout a successful AED program.

The establishment of written protocols also allows a sort of “business plan” that can be presented to the physician who will be writing the prescription for the AED and providing the medical oversight.

Q: Does your company need a physician’s prescription to obtain an AED?

Yes. AEDs are medical devices that require prescriptions to purchase.

Recently, AEDs for home use have been developed which do not require a prescription. However, medical direction is needed for use of this machine in any other environment outside of the home.

Q: Does my company need an AED protocol?

Yes. The protocol for AED usage that is developed as part of a facility's AED Program is an integral part of the physician's prescription and serves as the authorizing document for AED use. Essentially, the protocols that are signed by the Medical Director set the medical standards and criteria for the operation of the AED Program and all of its components. Systems operated within the boundaries and criteria of these signed protocols are considered to be under a physician's supervision.

Q: Who provides medical oversight of AED Programs?

AEDs are medical devices that are to be used under the advice and consent of a physician. This oversight can be provided either by a facility's own medical staff, contract physician or by a designated physician. It is best to seek medical input from the very beginning of the design of your program.

Q: Should Lay Responders/Rescuers (LRR) be trained?

Yes. A volunteer AED Response Team should be trained and designated as the first responders to a cardiac emergency. The greater the number of well-trained LRRs who are available, the more effective an AED program will be. Overall effectiveness will be improved as the number of personnel who are fully trained and willing to respond increases.

Q: Are AEDs safe to use on children?

An AED can be used on children. Most manufacturers come equipped with pediatric capability (i.e. special pads). The pediatric pads are to be used with children under 55 pounds. The AED can also be used on children with adult pads should the pediatric pads not be available.

Check your AED manufacturers handbook for specifics and devices guidelines.

Q: Where should AEDs be placed?

There is no set "formula" to determine the number and placement for AEDs. However, there are several factors that should be considered: (1) an optimal response time of three minutes or less and (2) assessing the level of risk in a facility's environment.

Many elements help determine the placement of AEDs. The major elements are:

- An easily accessible position
- Unobstructed access to the AED
- A secure location that prevents or minimizes the potential for tampering, theft, and/or misuse, while at the same time making it readily accessible for responders.
- Locations main use (public gathering, doctors office, swimming facility).
- Visibility or location in relation to the facility's use.