



Implementing a PAD Program

A comprehensive buyer's guide to setting up a Public Access Defibrillation program.

1

Pre-Purchase Planning

If you are considering purchasing an Automated External Defibrillator (AED) for use in your home, business, or other institution, careful planning is imperative in order to set up a safe and effective Public Access Defibrillation (PAD) program for the target space. As a buyer, an educated assessment of your target site is necessary to determine not only if you need an AED, but also which of the commercially available models is right for you. Local, state, and federal regulations may mandate your business or organization has an AED on site, but varying state legislation may impose stricter requirements.¹ With reliable information to investigate your AED needs, you can feel certain that your device will be safe and effective when used in an emergency situation.

2

Program Setup

Once you've established a need, proper implementation of a PAD program will ensure that common users can use the equipment quickly and effectively in the case of an emergency. The "drop to shock" timeframe, which will be detailed further in this section of the guide, establishes that reaching a victim of Sudden Cardiac Arrest (SCA) within 3-5 minutes of cardiac arrest is the single most important variable in saving someone's life.² Having a well-placed AED and trained responders on-site increases the likelihood that victims will survive.¹

3

Maintaining Your Device

AED devices are durable and can last for years, but auxiliary equipment, such as shock pads and batteries, have a finite shelf life—even if they go unused. Replacement timeframes are device-specific. Knowing how often your chosen AED model's equipment must be replaced is necessary to maintain the safety of at-risk individuals who visit your business, institution, or live in your home. Additionally, recording patient data when the device is used is necessary for subsequent medical evaluations of victims.¹

Implementation Checklist

- Determine if an AED is necessary for your intended site.
- Create a project management outline: who is responsible for setup, checkups, and data collection?
- Understand your state's legal obligations for PAD programs.
- Select a device and a purchase package that meets your specific needs.
- Understand the need for responder training and choose the best program for your site.
- Locate a proper storage location for your new AED.
- Understand how often important equipment, such as pads and batteries, need to be replaced for your AED model.
- Create a schedule for regular device maintenance checks.
- Devise a system for data collection if and when the AED is used.



1. Pre-Purchase Planning

Understand laws, site details, and ongoing responsibilities before purchasing an AED.

Legislative Boundaries

Before you purchase an AED, you should look into your state's specific AED legislation. These requirements can help you determine whether or not your establishment is legally required to have an AED, and if so, how many AEDs and where each AED should be placed. You should also familiarize yourself with your state's legislation regarding liability issues and Good Samaritan laws. To mitigate potential liabilities, many Public Access Defibrillation (PAD) programs have trained responders on-site.



Site Assessment

Assessing your site will involve determining the likelihood of an on-site SCA incident based on several factors, such as the demographics of visitors to your site and other venue details.³ Based on these evaluations, you can identify optimal placement for your AED. Generally, appropriate placement of AEDs follows certain criteria, including being in highly visible and accessible locations, near points of travel (like stairs or elevators), close to potential responders, near high risk areas (i.e. fitness facilities, cafeterias, areas of electrical work or high population density), or at standardized locations in multi-level buildings.



Program Management

Based on the two previous factors, you can now establish a budget and timeline for your AED system.¹ It's also a good idea to begin planning out a calendar for regular maintenance and start assigning ongoing action items. Finally, you will need to organize training programs for your employees or anyone who will be expected to use the AED. Training programs generally consist of an initial training session for all employees as well as periodic refresher trainings to ensure knowledge retention.



2. Program Setup: Devices

A flow chart outlining how to determine the best AED to satisfy a buyer's needs.

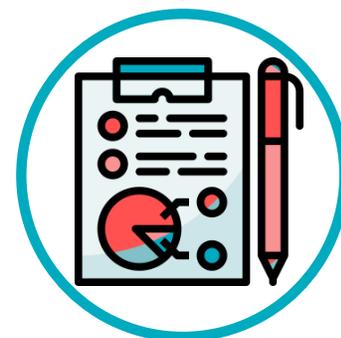


Know the Market

- There are about 15 FDA approved AED devices on the market.
- AEDs generally cost around \$1300-\$5000 each.
- Shock delivery may be semi or fully automatic. Fully automatic systems are recommended for PAD programs because they are more intuitive to use and do not require extra shock calibration.

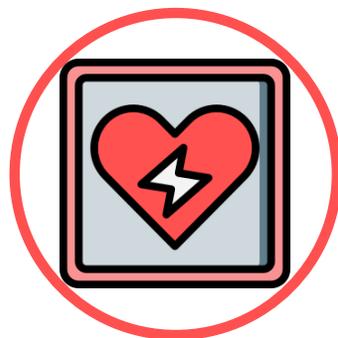
Compare AED Features

- AEDs may differ in the specialized needs they satisfy. For instance, certain models may come with pediatric pads for children, or feature universal pads that can be used on individuals of all ages.
- Program management components, such as automated data collection or emails alerting maintenance needs, also differentiate AED products.¹



Select an AED Model

- When selecting a device, you must consider the whole picture. A device should satisfy the specialized needs for the patrons of a particular site and should meet the program management needs of the buyer.¹
- Devices may often be purchased in packages that include necessary setup equipment for the AED.





2. Program Setup: Packages & Training

How many AEDs needed, where to put them, and who needs to be trained to use them.

Purchasing in Packages and AED Placement



Single AED

Packages for the single-AED buyer are generally listed directly on distributors' websites.

Individual AEDs can also be purchased in packages that include all of the necessary items to properly store and indicate the location of the AED. These packages typically cost about the same as the AED by itself, so they are generally beneficial for buyers. Packages usually include a storage and transport container, wall mount, signs, stickers, and indicators, and an inspection tag. A CPR/First Aid kit and AED response training resources are often included as well.



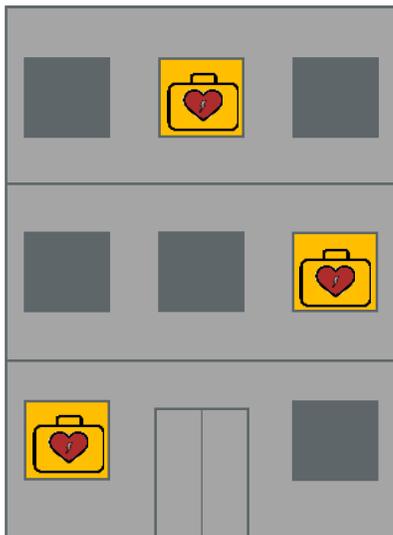
Multiple AEDs

These packages are not found directly online, and are typically negotiated with the AED distributor.

Bulk options are available depending on how many AEDs are needed for the site of interest. The number of AEDs recommended is dependent on the size and layout of a site. Generally, the "drop to shock timeframe" should be considered: enough devices should be present so that an AED can be transported to a SCA victim anywhere on the premises within 3-5 minutes. Because of this, daily foot traffic is an important consideration in estimating transport time from the AED location.^{1,2}

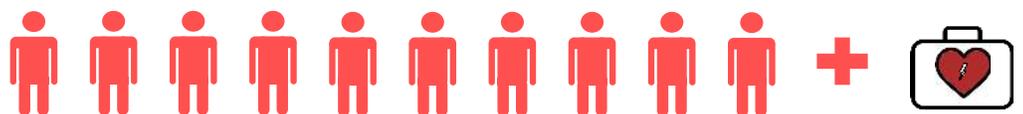
Response Training

A trained responder is able to use an AED to revive a SCA victim more efficiently, ultimately decreasing the time between cardiac arrest and shock delivery. This could mean the difference between life and death for some SCA victims. It is recommended that about 10 trained workers per AED and per floor of a building are present. Large, single-floor buildings may require additional AEDs to comply with the drop to shock timeframe for emergency device transport. To ensure there is always a trained responder available, trainees should be varied based on the location they work in, their job position, and the shift(s) they usually work. The AED itself should be placed in a safe but easily accessible location, such as a stairwell, near an elevator, or near the entrance of a large common room, like a cafeteria.¹



When choosing a training program, there are several options available. The American Red Cross and other institutions offer 4-8 hour combined CPR and AED classes, which are the most thorough form of training. This option comes with a certificate which can help nurses, teachers, social workers, and first responders accrue ongoing education credits.⁴ Training courses are often offered as part of an AED package as well, commonly in 30 minute on-site demonstrations or online modules. No matter which option you choose, some form of formalized employee training is pertinent to maintaining the safety of potential SCA victims on-site.^{1,5}

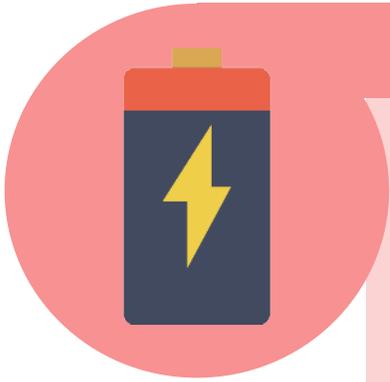
"10 trained workers per AED and per floor"





3. Maintaining Your Device

After setup, keep an eye out for replacements, equipment checks, and documentation.



Replacements

There are a few replacements that will need to be made over the course of your AED's lifetime — specifically, pads and batteries.¹ AEDs use defibrillation pads with a water-based gel that eventually dries up, requiring periodic replacement every 2-5 years, even if they are never used. Many AEDs have status indicator lights, which indicate whether or not the pads are in working order. Similarly, most AED batteries must be replaced every 2-7 years. It's important to regularly check the AED's battery level to see how much power remains in the battery and if it is time to replace it.



Ongoing Maintenance

To ensure timely maintenance of your AED system, it's helpful to create a calendar that clearly delineates how often equipment checks need to be conducted for the AED, with reminders for the individual(s) responsible for maintaining the AEDs. These equipment checks may entail testing machine components, replenishing supplies (such as gloves, pads, and batteries), and more, depending on the unique needs of your AED system. Many AED systems come with Program Management services that give online access to an AED tracking system with email reminders to aid with this oversight.



Data Collection

After each use of the AED, you must download cardiac event data for that incident to be used for subsequent medical evaluations of victims. In addition, ongoing documentation and recordkeeping will consist of tracking site assessment, maintenance and testing records, and training logs.¹ This is to ensure there is valid documentation to show that maintenance procedures are being completed on a timely basis, thus mitigating liability for negligence of equipment. Training logs must be kept up-to-date for all employees so that future refresher trainings can be strategically scheduled.



Endnotes

1. O9, A. (2012, April 13). AEDs: Are You Following Best Practices? Retrieved from https://www.ehstoday.com/standards/osha/ehs_imp_36294
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