

## **Is Your Gym Equipped for a Medical Emergency?** **By Hank Constantine**

When many schools set out to purchase an AED, the temptation is to get heavily involved in which AED to purchase, thinking this decision is critical to success. But buying the AED is just the first step. The shocks delivered by different AEDs are not very different. That's why they are all FDA-approved.

Mounting an AED on the wall is just one step in saving someone's life. Focus needs to be given to envisioning those few minutes when it's time for someone in your school to take action to save a life. A comprehensive AED program needs to be initiated with careful attention paid to maintaining the AED once it is installed, training rescuers to use the AED, and supporting any use of the AED with good CPR.

Who will you train to use the AED and to do CPR? How will you maintain the AED, its electrode pads, and batteries over the next decade? What will you do to support awareness of your program, equipment, and rescuers throughout the organization?

This more comprehensive approach will make you consider the importance of training. Infrequent rescuers need the presence of mind, the confidence, and the courage to act quickly and decisively. This won't happen if they aren't trained in the basics of what a rescue requires.

Sudden cardiac arrest is a true killer. There are many reasons why a heart might stop, and some are insurmountable. But without immediate attention—in the form of CPR and a defibrillating shock—the victim will probably become irretrievably dead in about 10 minutes.

You will also need to consider CPR as much as the AED. About half of all AEDs applied to victims find on the very first heart analysis that “no shock is advised.” At that point, only CPR can save the victim. Performed well enough, chest compressions on the victim's sternum at a rate of 100 per minute and 1.5 to 2 inches deep – the rate and depth recommended by the American Heart Association – can lead to a shockable heart rhythm on the next heart analysis. If your rescuers don't do good CPR, the chances of such a victim surviving cardiac arrest are slim to none.

But it's not only unshockable victims that need CPR. When an AED detects a shockable rhythm, once the shock is delivered, it will bring all electrical activity and muscle movement in the heart to a complete stop. This allows the heart to begin reorganizing its electrical rhythm over the next few minutes. If the struggling heart is to succeed in reorganizing itself, it needs one thing more than anything else to help it get going: oxygenated blood for its starved inactive muscles.

This can only be provided by CPR after delivering the shock. So, the success of your AED program will probably be determined, more than anything else, by whether your rescuers are ready to use the AED and do high-quality CPR.

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