

# Safety Spotlight

## Automated External Defibrillators in the Workplace

### What are AEDs?

An Automated External Defibrillator (AED) is a medical device designed to analyze the heart rhythm and deliver an electric shock to victims of ventricular fibrillation to restore the heart rhythm to normal. Ventricular fibrillation is the uncoordinated heart rhythm most often responsible for sudden cardiac arrest.<sup>1</sup>

### What is Sudden Cardiac Arrest?

Sudden cardiac arrest occurs when ventricular fibrillation takes place or when the heart stops beating altogether. This can be caused by heart attack, electrocution, or asphyxiation. Without medical attention, the victim collapses, loses consciousness, becomes unresponsive, and dies. Many victims have no prior history of heart disease and are stricken without warning.<sup>1</sup>

### Reasons for AEDs in the Workplace

- Workers may suffer sudden cardiac arrest while on the job.
- On-site AEDs save precious treatment time, and can improve survival odds because they can be used before emergency medical services (EMS) personnel arrive. Waiting for the arrival of EMS results in only a 5 – 7% chance of survival.
- A heart rhythm in ventricular fibrillation may only be restored to normal by means of an electric shock.
- The AED is compact, lightweight, portable, battery operated, safe, and easy to use.<sup>1</sup>

### AED Training

AED training can help workers to recognize sudden cardiac arrest and when to notify EMS personnel, perform cardiopulmonary resuscitation (CPR), provide early defibrillation with an AED, and care for the victim until EMS arrive.

Additionally, part of New York state's legislation (Public Health Law §3000) requires AED certification of school staff through an approved provider. The duration of this certification varies from provider to provider and is generally one or two years. It is important that your organization checks the certification expiration date(s) for your staff and arrange for recertification, when indicated. Equipment and supplies should also be checked periodically to ensure that units will function properly, if needed.<sup>2</sup>

### Placements of AEDs

AEDs should be installed where many people work closely together, where electric-powered devices are used, outdoor worksites where lightning may occur, company fitness centers and cafeterias, and any remote sites to ensure response within 3 – 5 minutes.<sup>1</sup>

<sup>1</sup> "Automated External Defibrillators: Saving Sudden Cardiac Arrest Victims in the Workplace." OSHA, 2003.

<sup>2</sup> "Automated External Defibrillators (AEDs)." NYSED: Automated External Defibrillators (AEDs), New York State Education Department, 8 Feb. 2017, [www.p12.nysed.gov/sss/schoolhealth/schoolhealthservices/AEDs.html](http://www.p12.nysed.gov/sss/schoolhealth/schoolhealthservices/AEDs.html).



There are 220,000 victims of cardiac arrest per year in the United States with about 10,000 sudden cardiac arrests occurring in the workplace.<sup>1</sup>



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