

Occupational Safety Rx Newsletter Special Report

AEDs: The Shocking Truth

The Occupational Safety and Health Administration on December 17, 2001, encouraged employers to place automated external defibrillators in workplaces.

AEDs are essential tools for resuscitating victims of sudden cardiac arrest, which claims the lives of 300,000 to 400,000 individuals each year. Most of these deaths occur outside hospitals. The likelihood of a victim's survival drops 10 percent each minute care is delayed. In the workplace, cardiac arrest caused about 13 percent of reported fatalities in 1999 and 2000. Quick access to automated external defibrillation may have prevented many of these deaths, according to OSHA.

"AEDs are easy to use and can make the critical difference in reviving individuals who suffer a cardiac crisis," OSHA Administrator John L. Henshaw said. "Administered within three minutes, the electric shock restores the normal rhythm to the victim's heart and can increase survival rates from less than 5 percent to nearly 75 percent. Immediate defibrillation can revive more than 90 percent of those individuals affected."

AEDs Go Public

Emergency response to cardiac arrest greatly improved in 1970 with the introduction of the AED. The movement known as Public Access Defibrillation, or PAD, places AEDs in public places where cardiac arrest is likely to occur, such as in government buildings, airports and sports stadiums. The idea is to ensure that the victim receives defibrillation as quickly as possible, perhaps by a trained layperson.

Results of a recent study showed trained emergency service personnel took a mean time of 67 seconds to initiate defibrillation, and untrained sixth-grade students were able to do it in 90 seconds. The technology has become that user-friendly.

The American College of Occupational and Environmental Medicine has issued guidelines for establishing and managing a workplace AED program. The ACOEM is a professional association that represents occupational physicians.

A Vital Link

The so-called Chain of Survival has set the standard of care for sudden cardiac arrest. The "chain" features the following links.

- Early 911 call
- Early CPR
- Early Defibrillation
- Early Advanced Life Support
- Early defibrillation is the most important link in the Chain of Survival.

But Watch Your Back

Many legislators are working to amend "Good Samaritan" laws, those that limit the liability of rescuers, to include the use of AEDs. Liability questions may be just over the horizon: Will employers be liable for a lack of AEDs in the workplace?

For the complete OSHA fact card and technical information bulletin, visit www.osha-slc.gov/dts/tib/tib_data/tib20011217.pdf.

About Public Access Defibrillation

- More than 220,000 Americans die each year from cardiac arrest. Every two minutes, an individual goes into cardiac arrest in the United States.
- The chance of successfully returning to a normal heart rhythm diminishes by 10 percent each minute following sudden cardiac arrest.
- Ventricular fibrillation causes 80 percent of cardiac arrests. Defibrillation is the only effective treatment.
- 60 percent of all cardiac arrests occur outside the hospital. The average national survival rate for out-of-hospital cardiac arrest is 5 percent.
- Communities with established and implemented public access defibrillation programs have achieved average survival rates for out-of-hospital as high as 50 percent.
- Wide use of defibrillators could save as many as 50,000 lives nationally each year.
- Successful public access defibrillation programs can ensure that cardiac arrest victims have access to early 911, early CPR, early defibrillation and early advanced life support.