



SAFETY ALERT

Automated External Defibrillators In The Work Place

Sudden cardiac arrest is one of the leading causes of death among adults in North America. Each year, 250,000 people die of cardiac arrest, more than from any other single cause. Every one or two minutes, without warning, an American becomes the victim of sudden cardiac arrest. It can strike anyone, anywhere, any time. Unless immediate medical intervention occurs, the victim will die.

Sudden Cardiac Arrest Does Not Need To Be Fatal

Sudden cardiac arrest does not have to result in **death**. When it occurs, a victim's heart rhythm usually goes into ventricular fibrillation (VF). In VF, the heart receives chaotic electrical impulses that prevent the heart from pumping in its normal coordinated state. Wiggling like a bag of Jell-O, the heart can't pump blood, resulting in a lack of blood flow to the heart and brain. The victim becomes "pulseless", then breathing stops. Finally, the victim becomes unconscious, collapses and appears lifeless.

The victim does not have to remain in this condition. If the heart is shocked quickly with a defibrillator, a normal heart rhythm may be restored and the victim may survive. This is called defibrillation. **BUT THIS ACTION MUST BE TAKEN QUICKLY!**

Quick Response Is Vital For Survival

Survivors of sudden cardiac arrest have 4 things in common:

1. Someone witnessed the arrest and initiated prompt medical action.
2. Someone started CPR immediately.
3. Someone arrived quickly with a defibrillator and shocked the victim.
4. EMTs arrived to administer advanced life support (medication, airway management, etc.)

These four factors are often called the "Chain of Survival." Statistics show that if a sudden cardiac arrest victim receives defibrillation therapy within the first one to two minutes of a witnessed attack, 90% of the victims survive. The chance of survival declines 10% with every minute that passes.

How An AED Works

The AED is a device that is capable of identifying life-threatening heart rhythms that can be converted by electric shock. When the rescuer turns on the AED, it immediately prompts the user to apply two electro-pads to the victim's chest. These pads transmit the victim's heart rhythm to the AED and are also the means through which the electrical shock is administered. The pads eliminate the need to use paddles as required with manual defibrillators.

Once the pads are placed on the victim, the AED analyzes the victim's heart rhythm to determine if shock therapy is advised. In about 6 to 10 seconds the AED can make a determination if shock therapy is advised. Voice and visual prompts will instruct the user to deliver a shock. After the shock, the AED will analyze the victim's heart rhythm and determine if subsequent shocks are advised.

Assessing Need For On-Site AEDs In Your Workplace

How do you know whether you may need an on-site AED program? Here are some criteria to consider:

1. Does EMS response to your location exceed 5 minutes for more than 10% of responses?
2. Does your location have an at-risk population? For example, does your location have employees age 40 or older, or a work force with a history of high blood pressure, high cholesterol, diabetes, and a personal history of heart disease?
3. Can an active, hands-on medical director be identified for this location?
4. Does your location have personnel willing and able to respond to cardiac emergencies to provide CPR and defibrillation?

If the answer is yes to these questions, then it may be wise to consider implementing an on-site AED program. Consult with your medical director and local EMS personnel for guidance in setting up a program and selecting an AED that is most suitable for your location.