



# MAFES Dawg Tracks

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*Saving Cardiac Arrests  
Victims in the Workplace*



Most cardiac arrests incidents happen at home, but the workplace also has its share of these:

- There are 220,000 sudden cardiac arrest victims in the USA each year - 10,000 occur at work.
- Waiting on Emergency Medical Service personnel results in only a 5-7% survival rate.
- Studies with immediate defibrillation have shown up to 60% survival one year after sudden cardiac arrest.
- 13% of sudden cardiac arrest fatalities occur in the workplace.

### Sudden Cardiac Arrest-

Sudden Cardiac arrest occurs when ventricular fibrillation takes place or when the heart stops beating altogether. 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.

### Causes of Sudden Cardiac Arrest –

- ✓ Heart Attack
- ✓ Electrocutation
- ✓ Asphyxiation (loss of consciousness and death caused by inadequate oxygen in the work environment, such as in a confined space.)

### Automatic External Defibrillators-

An Automatic 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.

### Reasons for AEDs in the Workplace-

- Workers may suffer cardiac arrest while they are on their job working.
- Onsite AEDs save critical time, and can improve survival odds because they can be used before the emergency medical service (EMS) arrive.

- A heart rhythm in ventricular fibrillation may only be restored to normal by an electric shock.
- The AED is compact, lightweight, and portable, battery operated, safe and easy to use.

### Placement of AEDs-

- ✓ AEDs should be conveniently installed where access response to them is no more than 3 to 5 minutes.
- ✓ In areas where there is a close proximity of employees.
- ✓ Close to a confined space.
- ✓ Areas where electric-powered devices are used.
- ✓ If installed outside, in areas where lightning might occur.
- ✓ Health units where workers may seek treatment for heart attack symptoms.
- ✓ Break rooms or in the administration buildings at our research units and regional R & E centers.

### Program Costs for AEDs-

- Cost per unit with the extras that are needed range from \$1200 to \$3000. However, universities can sometimes get a better price with quantity orders through the Institutions of Higher Learning.
- Normal training requirements are certification in CPR/1<sup>st</sup> Aid, in which we have at least 2 employees per station that have current certification.
- AED training can be furnished by the Safety Director of our IHL.

### AED Training Requirements-

Employees can easily be trained to:

- Recognize sudden cardiac arrest and notify EMS personnel.
- Perform cardiopulmonary resuscitation (CPR)
- Provide early defibrillation with an AED
- Care for the victim until EMS personnel arrive.

Hopefully, one day we can equip our stations with AEDs when the money is available. From a purely economic standpoint, one life saved will pay for the total investment plus the saving of mental anguish and sorrow for the victim's family.

**IGNORING A WARNING CAN  
CAUSE EXCESSIVE MOURNING**

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**GET SMART! <> USE SAFETY  
FROM THE START!**

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