



# 5-minute safety talk

## Sudden Cardiac Arrest and the Power of AEDs

Sudden cardiac arrest is a leading cause of death each year, and it can happen to anyone at anytime. It is important to have an emergency response plan for cardiac arrest. Several factors can increase your risk of sudden cardiac arrest, including if you are a shift worker, work around high voltage electricity, or have a high-stress job.

About half of all people who suffer sudden cardiac arrest experience an abnormal heart rhythm called ventricular fibrillation. This causes chaotic electrical impulses in the heart which quickly leads to unconsciousness, stopping of the heart, and failure to breathe. With each minute that passes, the hope of fully recovering from sudden cardiac arrest drastically decreases.

When someone falls victim to sudden cardiac arrest, following these five important steps, known as the Cardiac Chain of Survival, will result in the best possible outcome for a victim of sudden cardiac arrest.

1. Immediate recognition of the emergency and activation of 911 or local emergency number.
2. Early CPR--call for an AED and immediately start cardiopulmonary resuscitation (CPR).
3. Rapid defibrillation--use an Automated External Defibrillator (AED) as soon as it is available.
4. Effective advanced life support by emergency medical services.
5. Integrated post-cardiac arrest care.

Early defibrillation is the only effective treatment for ventricular fibrillation because it shocks the heart to help restore a normal rhythm. AEDs make it possible to begin defibrillation before Emergency Medical Services arrive, saving precious time. This is not to diminish the importance of early CPR if an AED is not readily available. CPR can be started immediately when a responder arrives on the scene. Early CPR can make defibrillation more successful by allowing blood and oxygen to continue to flow to the heart and brain. However, the quicker defibrillation can begin the better, and by extending the window of time during which defibrillation can occur.

AEDs are easy to use even by rescuers untrained in their use. However, training can increase a rescuer's confidence level. Training is required of rescuers in some states. Here are some important considerations to remember:

- All national, state, and local regulations with regard to AEDs must be followed.
- In many states, AED programs must be overseen by a medical professional.
- Local Emergency Medical Services should be made aware of your AED program.
- All emergency responders should be trained in both CPR and the use of AEDs, and follow-up training should be conducted at least every 2 years.
- AEDs should be properly maintained according to the manufacturer's instructions; a checklist may be helpful.

- All employees should be aware of your AED program and know where all your AEDs are located.
- AEDs should be systemically located so they can be reached within 2 minutes or less of any person who falls victim to sudden cardiac arrest.
- AEDs should be inspected regularly to make sure they are in good working order and that all the necessary supplies are readily available and have not reached their expiration date.
- It is important to run practice drills, even at off-site locations where some workers may perform their jobs. Make sure the AEDs are not located too far away to be effective.

While sudden cardiac arrest can occur for multiple reasons, it is always important to take good care of your health. Regular exercise, a healthy diet, not smoking, controlling blood pressure, maintaining normal weight, and controlling stress can lessen your chances for cardiovascular disease, a leading contributor to sudden cardiac arrest.

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