

## Defibrillation

Defibrillation is a process in which an electronic device gives an electric shock to the heart. This helps reestablish normal contraction rhythms in a heart having dangerous arrhythmia or in cardiac arrest. In recent years small portable defibrillators have become available. These are called automated external defibrillators or AEDs.

### AHA Scientific Position

It's essential to integrate early defibrillation into an effective emergency cardiovascular care system. This means employing the four-part "chain of survival" concept.

- Early Access — quickly calling the Emergency Medical Services (9-1-1) system
- Early CPR — promptly giving cardiopulmonary resuscitation when needed
- Early Defibrillation — having proper equipment and being trained to use it when indicated
- Early Advanced Cardiovascular Care

All emergency personnel should be trained and allowed to use a properly maintained defibrillator if they're likely to respond to cardiac arrest victims. This includes all first-responding emergency personnel, both hospital and non-hospital.

To make early defibrillation possible, a defibrillator must be immediately available to emergency personnel responding to a cardiac arrest. Thus, all emergency ambulances and other emergency vehicles that respond to or transport heart patients should have a defibrillator.

The American Heart Association recommends that AEDs be available wherever large numbers of people congregate. Such places include airports, convention centers, sports stadiums and arenas, large industrial buildings, high-rise offices, large health fitness facilities, etc.

The American Heart Association offers a four-hour training course called Heartsaver AED. It covers CPR and AED use. It's for lay rescuers and first responders.

**See the Related Items box above for links to the Cardiology Patient Page in *Circulation*, *Journal of the American Heart Association*:**

- Cardioversion
- The Implantable Cardioverter-Defibrillator

### Related AHA publications:

- [Heart and Stroke Facts](#)
- "What Is an Arrhythmia?" and "What Is an Implantable Defibrillator?" in [Answers By Heart](#) kit

### Related AHA Scientific Statements: [Defibrillation](#)

**See also:**

[Arrhythmias](#)  
[Atrial Fibrillation](#)  
[Cardiopulmonary Resuscitation \(CPR\)](#)  
[Cough CPR \(c-CPR\)](#)  
[Emergencies](#)  
[Heart, How It Works](#)  
[Long Q-T Syndrome](#)  
[Pacemakers](#)  
[Premature Ventricular Contractions](#)  
[Radiofrequency Ablation](#)  
[Sudden Cardiac Death](#)  
[Ventricular Fibrillation](#)  
[Wolff-Parkinson-White Syndrome](#)

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