

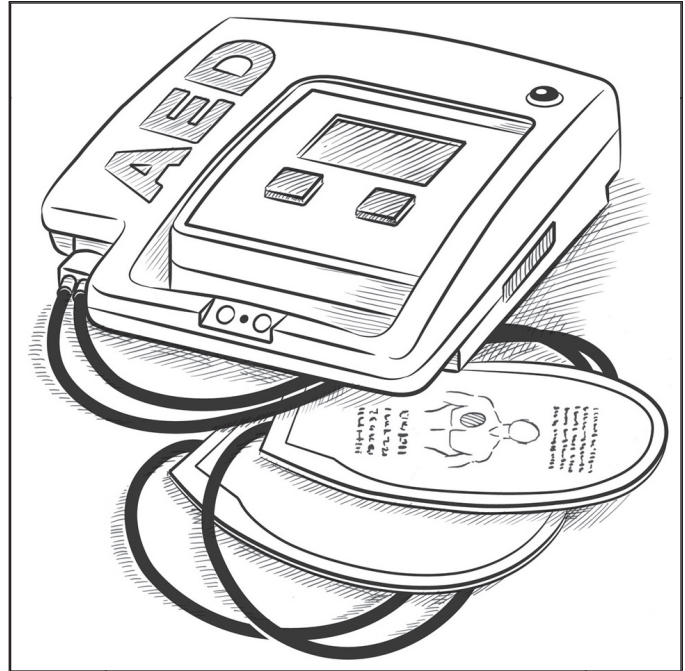
# What is an Automated External Defibrillator?

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An automated external defibrillator (AED) is a lightweight, portable device that delivers an electric shock through the chest to the heart. The shock can stop an irregular rhythm and allow a normal rhythm to resume in a heart in sudden cardiac arrest.

Sudden cardiac arrest is an abrupt loss of heart function. If it's not treated within minutes, it quickly leads to death.

Most sudden cardiac arrests result from ventricular fibrillation. This is a rapid and unsynchronized heart rhythm originating in the heart's lower pumping chambers (the ventricles). The heart must be "defibrillated" quickly, because a victim's chance of surviving drops by 7 to 10 percent for every minute a normal heartbeat isn't restored.



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## Why are AEDs important?

AEDs make it possible for more people to respond to a medical emergency where defibrillation is required. Because AEDs are portable and can be used by non-medical people, they can be made part of

emergency response programs that also include rapid use of 9-1-1 and prompt delivery of CPR. All three of these activities are critical to improving survival from cardiac arrest.

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## How does an AED work?

A built-in computer checks a victim's heart rhythm through adhesive electrodes. The computer calculates whether defibrillation is needed. If it is, a recorded voice tells the rescuer to press the shock button on the AED. This shock momentarily stuns the heart and stops all activity and gives the

heart an opportunity to resume beating effectively. Instructions guide the user through the process. AEDs advise a shock only for ventricular fibrillation or another life-threatening condition called pulseless ventricular tachycardia.

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## Who can use an AED?

Non-medical personnel such as police, fire service personnel, flight attendants, security

guards and other lay rescuers who have been properly trained can use AEDs.

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## Are AEDs safe to use?

AEDs are safe to use by anyone who's been trained to operate them. Studies have shown that 90 percent of the time AEDs are able to detect a rhythm that should be

defibrillated. And 95 percent of the time they are able to recommend NOT shocking when the computer shows defibrillation is not indicated.

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## Where should AEDs be placed?

All first-response vehicles, including ambulances, law-enforcement vehicles and many fire engines should have an AED. AEDs also should be placed in public areas such as sports arenas, gated communities, airports,

office complexes, doctor's offices and any other public or private place where large numbers of people gather or where people at high risk for heart attacks live.

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## Where can I get AED training?

The American Heart Association offers CPR and AED training through training centers. To locate a training center, call your nearest AHA office or 1-888-CPRLINE. You may also visit

[americanheart.org/cpr](http://americanheart.org/cpr). Type in your ZIP code where requested on the home page to access contact information on training sites near you.

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## How can I learn more?

1. Talk to your doctor, nurse or other health-care professionals. If you have heart disease or have had a stroke, members of your family also may be at higher risk. It's very important for them to make changes now to lower their risk.
2. Call 1-800-AHA-USA1 (1-800-242-8721), or visit [americanheart.org](http://americanheart.org) to learn more about heart disease.

3. For information on stroke, call 1-888-4-STROKE (1-888-478-7653) or visit us online at [StrokeAssociation.org](http://StrokeAssociation.org).

We have many other fact sheets and educational booklets to help you make healthier choices to reduce your risk, manage disease or care for a loved one.

Knowledge is power, so *Learn and Live!*

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## Do you have questions or comments for your doctor or nurse?

- Take a few minutes to write your own questions for the next time you see your healthcare provider.

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