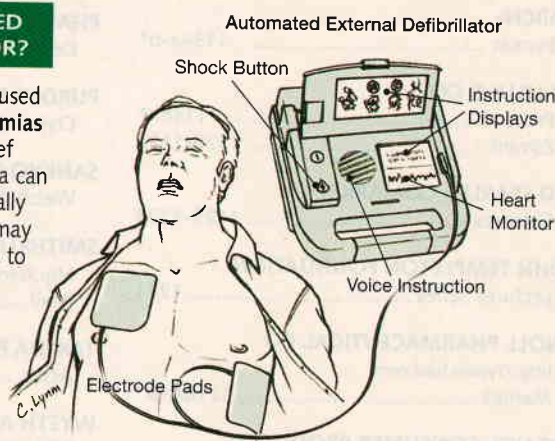


Heart Emergencies Caused by Irregular Heartbeat

Arrhythmias (irregularities in the heartbeat) can lead to life-threatening emergencies, such as **cardiac arrest** (when the heart stops pumping because there is no effective heartbeat). An article in the March 7, 2001, issue of *JAMA* discusses the importance of rapid access to **automated external defibrillators** to increase the likelihood of survival for individuals who need to have their heart rhythms corrected during a heart emergency.

WHAT IS AN AUTOMATED EXTERNAL DEFIBRILLATOR?

A defibrillator is a device that is used to correct some types of **arrhythmias** by shocking the heart with a brief burst of electricity. An arrhythmia can be an uncoordinated or abnormally fast heartbeat. The defibrillator may have to be used more than once to establish a normal heartbeat. An **automated external defibrillator** (AED) monitors the heartbeat rhythm and gives the user easy-to-follow instructions.



WHAT TO DO IN AN EMERGENCY

If the person is conscious and breathing, telephone the local emergency services by dialing 911 in most areas of the United States. The dispatcher at the emergency number will ask you questions; answer the questions calmly and quickly and follow the instructions given.

If the person has extreme difficulty breathing or stops breathing (there may also be no pulse or heartbeat):

- Telephone emergency services (911)
- If you are trained in **cardiopulmonary resuscitation**, also known as **CPR** (life-saving measures that include mouth-to-mouth breathing and chest compressions), begin performing CPR at once
- If you do not know CPR, the dispatcher at the emergency number may be able to give instructions over the telephone; the important thing is to remain calm and follow all of the dispatcher's instructions completely
- If you suspect the person has gone into cardiac arrest and a portable automated external defibrillator is available, follow the instructions provided by the device
- Continue emergency care until emergency medical personnel arrive

Sources: National Heart, Lung, and Blood Institute, American Heart Association, American College of Emergency Physicians, American Red Cross, The AMA Handbook of First Aid and Emergency Care, The AMA Home Medical Library, The AMA Family Medical Guide

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THE ABCs OF CPR

To learn CPR, you will need to take a hands-on course. Courses may be offered in your area through the American Red Cross or the American Heart Association at a community center, a hospital, a fire department, a school, or sometimes even through your employer. The CPR course will provide basic instruction and training in the ABCs of CPR:

- **Airway**—make sure the airway is clear
- **Breathing**—assist in breathing using mouth-to-mouth resuscitation
- **Circulation**—restore blood circulation by using chest compression and an automated external defibrillator, if one is available

FOR MORE INFORMATION

- American Heart Association
800/AHA-USA1 or
www.americanheart.org
- American Red Cross
Public Inquiry Office
703/248-4222 or www.redcross.org
- National Heart, Lung, and Blood Institute (NHLBI Information Center)
301/792-8573 or
www.nhlbi.nih.gov

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page Index on JAMA's Web site at www.jama.com. Previous JAMA Patient Pages were published on CPR (April 7, 1999) and heart attacks (July 28, 1999, and May 6, 1998).

