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# 10 Nice-To-Know Facts About Automatic External Defibrillators

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**1 Lethal situation.** Each year more than 300,000 people die in the United States from coronary heart disease, either in the emergency room or before they reach the hospital. Most of these are sudden deaths caused by cardiac arrest, usually because of an abnormal heart rhythm called ventricular fibrillation. Statistics show that individuals stand a much better chance of surviving if they undergo defibrillation, a process that restores a normal rhythm to a heart that is beating in an uncoordinated fashion.

**2 Chain of life.** Using automatic external defibrillators (AEDs) represents the third step in the American Heart Association's (AHA) renowned "Chain of Survival" concept, after alerting emergency medical services (EMS) and administering cardiopulmonary resuscitation (CPR). AEDs can detect certain life-threatening cardiac arrhythmias and then be used to administer an electrical shock that can restore the normal sinus rhythm.

**3 Every minute counts.** According to the AHA, the average response time to a cardiac event from the moment the call is placed to 911 until the emergency response team arrives is approximately 10 to 12 minutes. Each minute that emergency care is delayed reduces survival rates by 7% to 10%. Survival rates have been shown to increase dramatically with early implementation of CPR and the use of an AED device.

**4 Help in a small package.** Thanks to technologic advances, the AEDs that are currently on the market are portable devices that weigh as little as 4 to 7 lbs (without accessories). Their availability in public settings is widespread and increasing daily. At the present time, more than a quarter of a million of these life-saving devices are in use in the United States.

**5 Bottoming out.** In the approximately eight years since commercial-level AEDs were brought to market, the price of a top-quality AED has fallen below \$3,000 per unit, and in some instances, to less than \$1,300, depending upon the model of the unit and the accessories accompanying it. In the process, the number of major manufacturers of AEDs have dropped from 12 to 13 during the industry's zenith to around 7 currently.

**6 Anyone, anywhere, any time.** By its nature, sudden cardiac arrest (SCA) is completely unpredictable. Although victims of SCA tend to fit certain profiles, it can strike anyone, anywhere, any time—without warning. Physical stress can cause abnormal heart rhythms that can lead to SCA. Accordingly, anyone (e.g., a health/fitness professional) who might find him or herself in a situation where emergency care involving SCA might need to be provided should undergo mandatory training in the use of AEDs.

**7 Safety in the friendly skies.** Federal Aviation Administration rules require that all U.S. airlines

(except small regional planes that don't have at least one flight attendant) must carry AEDs and that flight attendants must be trained in their use.

**8 A promising future.** At the present time, five states (Illinois, Louisiana, Maryland, New York, and Rhode Island) have passed legislation that require health/fitness facilities to have AEDs. Currently, similar legislation is pending in several states, including California, Michigan, Missouri, New Jersey, and Pennsylvania. Eventually, it is expected that AEDs will become fixtures in *all* public settings.

**9 Child's play.** AEDs are simple to use and can be operated by anyone with minimal training. Even children can be trained to safely and effectively operate AEDs.

**10 Home is where the heart is.** At-home models of AEDs have been on the market for several years. Given the fact that an estimated 70% of cardiac arrests occur in the home, the use of AEDs in the home is expected to rise dramatically as public awareness of the potential value of AEDs increases and the cost of at-home models falls even further.

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