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# AUTOMATED EXTERNAL DEFIBRILLATORS



CATHOLIC  
MUTUAL GROUP

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- Each year nearly 350,000 Americans are victims of Sudden Cardiac Arrest (SCA).
  - Unfortunately, only about one in twenty survive!
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- Sudden Cardiac Arrest differs from what most of us perceive as a heart attack. A heart attack is the result of the interruption in the flow of blood to the heart muscle due to a blockage in an artery. SCA, on the other hand, is usually triggered by an electrical malfunction of the heart that shuts down the heart's ability to pump blood.
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- The most common type of malfunction is ventricular fibrillation and it gives little or no warning it is about to strike. The victim of SCA literally has minutes to live!
  - Since the flow of blood through the body has been interrupted, the window for survival is about 10 minutes. For each minute following cardiac arrest, the chances of survival decrease by 10%.
  - The key to effective treatment for SCA is early defibrillation, or electrical shock, to restore the heart's normal pumping rhythm.
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- In 1990, The American Heart Association established its “Chain of Survival” as a guideline for improving survival rates for SCA. The “Chain” consists of four elements:
    - 1. Early Access to the Emergency Medical System (911)
    - 2. Early CPR to provide circulation and respiration
    - 3. Early Defibrillation
    - 4. Advanced Cardiac Life Support
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- The weakest link in the “Chain of Survival” has been Early Defibrillation since only about 50% of the ambulances and 15% of fire departments are equipped with the standard defibrillators and have the advanced training to use them.
  - However, advances in technology have made it possible to develop the Automated External Defibrillator (AED). The AED can be used by a trained lay person to deliver the electrical shock needed to reestablish a normal heartbeat.
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- The Automated External Defibrillator is programmed to analyze the heart's electrical function and to advise the operator to deliver or not to deliver an electrical shock to the victim.
  - AEDs do this through both voice prompts and on screen displays which guide the operator through all of the required steps.
  - AEDs are safe and effective. They will not shock someone who is not in cardiac arrest.
  - They are designed to be used by a non-medical person who has completed a short training course that covers CPR and AED
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- As of November 1999, 45 States have enacted defibrillator laws or adopted regulations for their use.
  - In virtually all cases, trained lay persons are allowed to use AEDs and are provided limited immunity under the state Good Samaritan law.
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- The cost to acquire a typical basic unit is about \$3,800.
  - The unit comes equipped with battery and a spare battery is recommended.
  - Training consists of a 3 or 4 hour course, in addition to basic CPR and usually will cost an additional \$25
  - Certification is good for 2 years
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- For more information on Automated External Defibrillators and Sudden Cardiac Arrest you can access the following sources:

- National Conference of State Legislatures (State Laws and Links to Other Sites)  
[www.ncsl.org](http://www.ncsl.org)

- Medtronic Physio-Control Corporation, Redmond WE (Manufacturer of AEDs)  
[www.physiocontrol.com](http://www.physiocontrol.com) or [www.Medtronic.com](http://www.Medtronic.com)

Phone Number: 800-442-1142

Fax: 425-867-4121

