



## FACT SHEET: Cardiopulmonary Resuscitation (CPR)

Cardiopulmonary resuscitation, or CPR, is a method of providing oxygen and blood circulation through rescue breathing and chest compressions. During cardiac arrest, the normal rhythm of the heart is interrupted and the heart muscle loses its ability to pump blood (and distribute oxygen through the blood).

The potential loss of oxygen impacts the entire circulatory system, affecting the brain and other vital organs. Delivery of CPR is LIFE-SAVING first aid, and can increase a person's chances of survival if started within minutes of a sudden cardiac arrest event by helping to maintain vital blood flow to the heart and brain. Without oxygen-rich blood, permanent brain damage or death can occur in less than 8 minutes. Moreover, CPR has been shown to increase the amount of time that an electric shock from a defibrillator can be effective. In fact, the American Heart Association estimates that effective bystander CPR, provided immediately after sudden cardiac arrest, can double or triple a person's chance of survival.

CPR should be performed when a person is not showing signs of life. Victims will be unconscious, unresponsive, not breathing normally, and not moving. Taking immediate action can help save a life when a potential rescuer follows this emergency sequence:

- **PHONE FIRST:** Dial 9-1-1 immediately, or send someone to make the call if a phone is not immediately available. Tell the dispatcher the specific location and what action is being taken. **DO NOT HANG UP!**
- **SCENE SAFETY:** Make sure that you are not in immediate danger as well.
- **UNIVERSAL PRECAUTIONS:** If gloves and mouth barrier are available, prepare yourself to use them accordingly.
- **SHAKE AND SHOUT:** Determine unresponsiveness of the victim. "Hey, are you OK?!"
- **CLEAR AIRWAY:** Tilt the head and lift the chin to open the airway.
- **COMPRESSIONS:** Place the heel of one hand over the other, position yourself with shoulders directly over the victim and deliver compressions to the center of the chest (along the line of the nipples). The most effective rate is 100 compressions per minute. Push hard, push fast, and allow for full chest recoil between compressions.

In April 2008, the American Heart Association revised its recommendations and encouraged lay bystanders to use compression-only CPR as an alternative to the combined rescue breathing and chest compression method. Research had shown that many people were reluctant to provide CPR support because of their personal discomfort in providing mouth-to-mouth breathing to a stranger. The compression-only method provides vital blood flow and oxygen support while waiting for emergency responders or the shock of a defibrillator to be administered, and overcomes an important hurdle in getting everyone to act when someone suffers sudden cardiac arrest.

New technology has been also developed to assess the efficacy of CPR technique. This new line of devices can help rescuers provide proper pace and depth of compressions, while giving automated voice prompts for breaths.

*The Sudden Cardiac Arrest Association's mission is to prevent loss of life from sudden cardiac arrest. We seek to increase awareness, encourage training for immediate bystander action, increase public access to defibrillation and promote the use of available medical devices and therapies, principally, implantable cardioverter defibrillators (ICD). SCAA members are the beneficiaries of improved science and medical technology, coupled with the wisdom and caring of thousands of physicians. For more information, please visit us at [www.suddencardiacarrest.org](http://www.suddencardiacarrest.org)*