

# Hands-Only Cardiopulmonary Resuscitation Saves Lives

by Kay Ledbetter

**W**hile getting immediate help to a person suffering a heart attack is key to saving their life, lack of training in cardiopulmonary resuscitation (CPR) may have prevented quick action in the past, said a Texas AgriLife Extension Service specialist.

New guidelines from the American Heart Association, however, say even people who have no training in CPR may be able to help in an emergency situation by “hands-only cardiopulmonary resuscitation,” said Andrew Crocker, AgriLife Extension gerontology health program specialist.

The hands-only technique eliminates one potential hindrance to providing help — fear of mouth-to-mouth contact, Crocker said.

It is estimated more than 165,000 Americans experience cardiac arrest each year and 75% of those episodes happen in the home, he said. A person in cardiac arrest has little chance of survival unless immediate action is taken to sustain him or her until medical help arrives.

Cardiac arrest is a condition in which the heart abruptly stops pumping blood, Crocker said.

In many cases, he said, the heart suddenly goes from a regular heartbeat to twitching, called ventricular fibrillation, which does not allow blood to move through the body. When the heart stops, the absence of oxygenated blood may cause brain damage in only a few minutes. Death may occur in as little as eight to 10 minutes.

Cardiac arrest strikes immediately and without warning, Crocker said. Signs may include sudden collapse, loss of responsiveness and failure to breathe normally.

“If you see someone collapse in a public place or at home and you think it might be cardiac arrest, there are some things you should know and some actions you may take,” he said.

Conventional CPR involves a combination of chest compression and mouth-to-mouth rescue breathing to keep oxygenated blood flowing to the brain and other vital organs until professional medical help arrives, Crocker said.

Individuals can take an accredited first-aid and CPR training course through the American Heart Association, American Red Cross, or a local hospital or clinic, he said.

However, with the new American Heart Association guidelines, having this training is not required to help save a life. The guidelines offer a simple, two-step measure:

- ▶ Dial 911 to call for emergency medical help.
- ▶ Push hard and fast on the center of the chest and continue until medical professionals arrive.

“It is not dangerous to perform chest compressions even if the heart is still beating,” Crocker said. “You cannot make a person any worse than he or she already is. You may break ribs, but the alternative is almost certainly death. Only stop compressions when either the person or the medical professionals tell you to stop or you are too tired to continue.”

Crocker warned that while CPR is very important, it alone may not restore a heartbeat. A fibrillating heart may require an electric shock to enable it to resume a normal heartbeat.

“However, until then, chest compressions are the only means to move blood to the patient’s brain, heart and other organs,” he said. “Without chest compressions, a fibrillating heart will use up its energy supply and the person may not survive.”

If an automated external defibrillator (AED) is nearby, send someone to retrieve it. Do not delay or interrupt chest compressions in the meantime. If the person has not begun moving after about two minutes, apply the AED, switch it on and follow the machine’s voice instructions.

“If you are not trained to use an AED, a 911 operator may be able to guide you in its use,” Crocker said. “Too, instructions from AEDs are so simple that almost anyone can use them without prior training.”

The American Heart Association recommends administering one shock, then resuming CPR for two more minutes before administering a second shock, he said. Continue CPR until there are signs of movement or until emergency medical personnel take over.

Crocker warned it is still best to have CPR done in the conventional way by medical professionals, and the new recommendations apply only to adult cardiac arrest victims outside a hospital setting.

Hands-only CPR should not be used on infants or children or adults whose cardiac arrest is from respiratory causes, he said. Conventional CPR with mouth-to-mouth breathing remains the appropriate technique for persons who are in respiratory arrest, indicated by breathing difficulties.

In respiratory arrest, the primary problem is not the heart but a lack of oxygen that eventually leads to cardiac arrest. Respiratory arrest may be caused by drug overdose, alcohol intoxication, carbon monoxide poisoning, severe asthma, drowning or choking.

For more information, visit the American Heart Association’s web site [www.americanheart.org](http://www.americanheart.org).



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