



MAFES Dawg Tracks

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Safety Tips: Performing CPR on Adults



Latest statistics reveal that over 1.5 million people experience heart attacks every year and more than 20% of these people die before reaching a hospital. Latest data shows that cardiac arrest is becoming the #1 cause of death.

According to www.cprandfirstaid.net, the following statistics shows the life span of a cardiac arrest victim:

- **0-4 minutes – Brain damage unlikely**
- **4-6 minutes – Brain damage possible**
- **6-10 minutes – Brain damage probable**
- **Over 10 minutes – Probable brain death**

When the heart stops, the absence of oxygenated blood can cause permanent brain damage in only a few minutes. Death will occur within approximately 8-10 minutes.

Cardiopulmonary Resuscitation (CPR) is a life-saving technique useful in many emergencies, including a heart attack or near drowning, in which a person's breathing or heartbeat has stopped. The **American Heart Association recommends that everyone- untrained bystanders and medical personnel alike- begin CPR with chest compressions.** It is better to do something rather than nothing even if you're fearful that your knowledge or abilities aren't 100% complete. Following is the advice from the **American Heart Association** regarding using CPR:

Untrained- If you aren't trained in CPR then provide hands-on CPR. This means uninterrupted chest compressions of about 100 times per/minute until paramedics arrive (described more a little later). You don't need to try rescue breathing.

Trained- Ready to Go- Assuming you are well-trained and confident in your ability to begin with chest compressions instead of first checking the airways and doing rescue breathing: Start CPR with 30 chest compressions before checking the airway and giving rescue breaths.

Trained, But Rusty- If you have received prior CPR training but you're not confident in your ability, then do chest compressions at a rate of 100 per/minute.

We have personnel in all locations on and off the campus that have been trained in CPR and first aid with a refresher every 2 years. But without use or a review of the procedure, we tend to get rusty.

BEFORE YOU BEGIN CPR- "CHECK":

- ✓ **Is the person conscious or unconscious?**
- ✓ **If the person appears to be unconscious- tap or shake their shoulder and ask loudly, "Are you okay?"**
- ✓ **If the person doesn't respond and 2 people are available, one should call 911 or the local emergency number and the other start CPR. If you are alone and have immediate access to a telephone, call 911 before you start CPR- unless you think that the person has become unresponsive because of suffocation (such as drowning). In this case, begin CPR and then call 911 or the local emergency number.**
- ✓ **If there is an AED immediately available, deliver one shock if instructed by the device, then start CPR.**

THE AMERICAN HEART ASSOCIATION'S ACRONYM FOR THE ORDERLY STEPS OF CPR-> C-A-B-

Circulation: Restore blood circulation with chest compressions

- ✓ Put the person on their back on a firm surface.
- ✓ Kneel next to the person's neck and shoulders.
- ✓ Place the heel of your hand over the center of the person's chest, between the nipples. Place your other hand on top of the first hand. Keep your elbows straight and position your shoulders directly above your hands.

- ✓ **Use your upper body weight (not just your arms) as you push down on (compress) the chest at least 2 inches. Push hard at a rate of 100 compressions per/minute.**
- ✓ **If you haven't been trained in CPR - continue chest compressions until there are signs of movement or until emergency personnel take over. If you have been trained in CPR- go on to checking the airway and rescue breathing.**

Airway: Clear the Airway

- ✓ If you are trained in CPR and you have performed 30 chest compressions, open the person's airway using the head-tilt, chin-lift maneuver. Put your palm on the person's forehead and gently tilt the head back. Then with the other hand gently lift the chin forward to open the airway.
- ✓ Check for normal breathing, taking no more than 5 or 10 seconds. Look for chest motion, listen for normal breath sounds and feel for the person's breath on your cheek and ear. Gasping is not considered to be normal breathing. If the person isn't breathing normally and you are trained in CPR begin mouth to mouth breathing. If you believe the person is unconscious from a heart attack and you haven't been trained in emergency procedures, skip mouth to mouth rescue breathing and continue chest compressions.

Breathing: Breathe for the person

Rescue breathing can be mouth to mouth or mouth to nose if the mouth is seriously injured or can't be opened.

- ✓ With the airway open (using the head-tilt, chin-lift maneuver), pinch the nostril shut for mouth to mouth breathing and cover the person's mouth with yours, make a seal.
- ✓ Prepare to give 2 rescue breaths. Give the 1st rescue breath- lasting 1 second- and watch to see if the chest rises. If it does rise- give the 2nd breath. If the chest doesn't rise, repeat the head-tilt, chin-lift maneuver and then give the 2nd breath. 30 chest compressions followed by 2 rescue breaths is considered 1 cycle.
- ✓ Resume chest compressions to restore circulation.
- ✓ If the person has not begun moving after 5 cycles (about 2 minutes) and an automatic external defibrillator (AED) is available, apply it and follow the prompts. Administer 1 shock, and then resume CPR- starting with chest compressions- for 2 more minutes before administering a 2nd shock. If you aren't trained to use an AED, a 911 or other emergency operator may be able to guide you in its use.
- ✓ Continue CPR until there are signs of movement or emergency medical personnel take over.

Statistics have proven that the earlier CPR is initiated, the greater the chances of survival. The chance of survival is doubled if help is provided within 4 minutes. This few minutes can be the difference between life and death.

CPR may not save the victim even when performed properly, but if it is started within 4 minutes of cardiac arrest and defibrillation is provided within 10 minutes, a person has a 40% chance of survival. CPR provides a trickle of oxygenated blood to the brain and heart and keeps these organs alive. Cardio Pulmonary Resuscitation (CPR) serves as an artificial heartbeat and an artificial respirator until defibrillation can shock the heart into a normal rhythm or emergency equipment arrives.

The American Heart Association in its 2010 guidelines strongly recommends that untrained responders perform "compression only" CPR, sometimes referred to as "CCR." Professionals and trained personnel are encouraged to give the victim 2 breaths and 30 chest compressions.

**PREPARE & PREVENT
INSTEAD OF
REPAIR & REPENT**

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Excerpts: www.mayoclinic.org/first-aid/first-aid-cpr/basics
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