

American Expression E1017 Cardiopulmonary resuscitation

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Cardiopulmonary resuscitation (CPR) is a life-saving emergency procedure that combines chest compressions and rescue breaths to maintain blood circulation and oxygenation when a person's heart has stopped beating or is not pumping blood effectively. CPR is crucial in situations like cardiac arrests, drowning incidents, or cases of suffocation where immediate intervention is required to prevent brain damage and increase the chances of survival.

CPR involves a sequence of steps designed to mimic the heart's pumping action and deliver oxygen to the body's vital organs. Here's an overview of the procedure:

Assess the Situation: Before starting CPR, ensure that the environment is safe for both the rescuer and the victim. Check if the person is responsive by tapping them and shouting loudly. If there's no response and the person is not breathing normally, it's time to initiate CPR.

Call for Help: If someone else is available, ask them to call emergency services immediately. Time is of the essence in a cardiac arrest situation.

Start Chest Compressions: Place the heel of one hand on the center of the person's chest (usually over the lower half of the breastbone), and place the other hand on top. Interlock your fingers. Position yourself with your shoulders directly above your hands. Using your upper body weight, press hard and fast, aiming for a compression depth of about 2 inches for adults (less for children and infants). Compress the chest at a rate of around 100-120 compressions per minute.

Give Rescue Breaths: After 30 chest compressions, give 2 rescue breaths. Tilt the person's head back slightly and lift the chin to open the airway. Pinch the nose shut and cover the person's mouth with yours, creating an airtight seal. Give a breath that makes the chest rise visibly. Continue with the cycle of 30 compressions followed by 2 rescue breaths.

Continue Until Help Arrives: Perform cycles of 30 compressions and 2 breaths until emergency medical services arrive, the person shows signs of life (such as normal breathing), or you are too exhausted to continue.

CPR aims to provide basic life support until more advanced medical interventions, such as defibrillation, can be administered. Automated External Defibrillators (AEDs) are portable devices that can analyze a person's heart rhythm and deliver an electric shock if needed to restore a normal heartbeat.

Proper technique and timing are crucial in performing CPR effectively. It's important to remember that while CPR can significantly increase the chances of survival, it might not always be successful. Training in CPR and regular updates can enhance the ability to respond effectively in emergency situations.

In conclusion, cardiopulmonary resuscitation (CPR) is an emergency procedure involving chest compressions and rescue breaths that aim to maintain blood circulation and oxygenation in cases of cardiac arrest or other situations where the heart is not functioning effectively. CPR can buy valuable time until professional medical help arrives and increase the likelihood of a positive outcome for the individual in need.

## Questions for Discussion

- 1. How essential is widespread knowledge of CPR among the general population? Should CPR training be a mandatory part of school curricula or workplace training to ensure more people are equipped to respond to emergencies effectively?
- 2. What challenges might individuals face when attempting to perform CPR in real-life situations? How can anxiety or fear impact the willingness and ability to provide immediate assistance?
- 3. With the advancement of technology, devices like automated external defibrillators (AEDs) have become more accessible. How have these devices transformed the landscape of CPR and emergency response, and what role do they play in increasing survival rates?
- 4. Cultural beliefs and personal comfort levels can influence one's willingness to perform CPR on someone. How can communities and societies address these factors to promote a culture of proactive emergency response?
- 5. Cardiopulmonary resuscitation techniques have evolved over the years. Are there ongoing research and innovations in the field of CPR that are enhancing its effectiveness and outcomes? How can individuals stay updated on the latest best practices in emergency response?