



Dear Customer,

On October 18th, the American Heart Association (AHA) and European Resuscitation Council (ERC) released their 2010 Guidelines for cardiopulmonary resuscitation (CPR) and emergency cardiac care (ECC). As expected, many of the 2005 Guidelines remain the same for 2010. This summary focuses on changes to the Guidelines for basic life support and defibrillation.

Most Significant 2010 Guidelines Changes

- The AHA Guidelines remove the initial **“Look, Listen, Feel”** step for assessing victims. Rescuers should immediately begin CPR if an adult victim is unresponsive and not breathing normally.
- **“C-A-B”** (Compressions – Airway – Breathing). The AHA and ERC emphasize the importance of early, uninterrupted chest compressions. The AHA highlights a “C-A-B” sequence, while the ERC emphasizes an “A-C-B” sequence.
- **Hands-Only Compressions:**
 - Both organizations emphasize that even **untrained bystanders** can help victims: simply **“push hard and fast”** on the center of the victim’s chest or follow the directions of EMS dispatchers. Studies noted that untrained bystanders may fear the CPR process and potential danger to themselves and the victim.
 - **Trained rescuers** should still provide 30 compressions and 2 rescue breaths (if they are willing and able) in order to improve outcomes, especially for pediatric victims.
- **Quality of CPR** is a key factor in improving outcomes.
 - **Depth/Rate/Recoil:** Rescuers should provide 100 compressions per minute at a depth of at least 2 inches/5 cm (adults) or 1/3 depth of chest (children and infants). Rescuers should allow the chest to recoil fully between compressions.
 - Use of **CPR feedback and prompting devices** is helpful during CPR training and can improve the quality of CPR. This may include voice prompts, visual prompts, and compression rate metronome.
 - It is important to **minimize interruptions**. Do not delay or interrupt chest compressions to check pulse or rhythm. When more than one rescuer responds, one rescuer should ready the AED (automated external defibrillator) while the other rescuer performs chest compressions.
- The AHA and ERC recommend the further development of **AED programs** and training.
- Many cardiac arrests require more than one shock to resuscitate a victim. The AHA and ERC state that it is reasonable for AEDs to **escalate energy** delivered in second and subsequent shocks.

As expected, Cardiac Science Automated External Defibrillators (AEDs) continue to comply with the AHA and ERC Guidelines for defibrillation:

- Our patented RescueCoach™ technology provides extensive CPR prompting with user-paced voice and text prompts and a CPR metronome.
- STAR® Biphasic technology escalates energy based on the victim’s individual resuscitation needs.
- Cardiac Science AEDs provide the AHA/ERC recommended 30:2 CPR sequence (30 compressions and 2 rescue breaths) and metronome pacing at a rate of 100 compressions per minute. In a University of Pennsylvania simulated rescue, the Powerheart AED G3 Plus helped untrained adults deliver CPR of a quality similar to that of trained professionals.¹

We encourage you to attend training to get in-depth, hands-on experience with these latest developments in resuscitation.

We will continue to provide updates to our customers on how these Guidelines may impact your AED program. And please contact your Cardiac Science Certified AED Specialist or authorized distributor for more information on these exciting developments.

Your friends at Cardiac Science

¹ Peer reviewed study by Benjamin S Abella et. al. "Untrained Volunteers Perform High Quality CPR When using an Automatic External Defibrillator with a CPR Voice Prompting Algorithm," Circulation. 2007; 116:II_437.

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