



Summary of ECC 2005 Guideline Changes

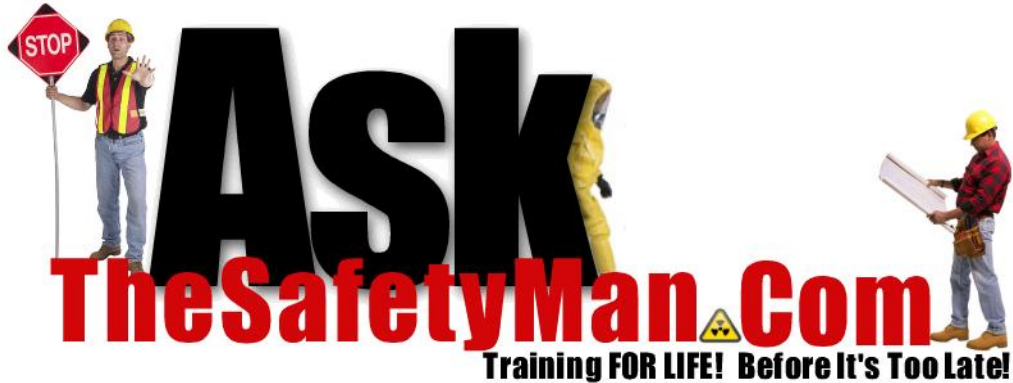
This summary sheet is not a substitute for certified CPR training. The following is a summary of the ECC guideline changes related to Askthesafetyman.com courses designed for certified lay responders. These changes are reflected in our First Aid/CPR/AED Program:

❑ **Recovery Position** - Whenever the victim is breathing and unconscious, or if the responder is alone and must leave the victim to get help, the victim should be placed in the recovery position. Once in the recovery position, the victim should be turned to the opposite side after 30 minutes or if there are signs of loss of circulation to the lower arm, such as pale, ashen or grayish skin that is cool to the touch. If there is a suspected head, neck or back injury and a clear, open airway can be maintained, do not move the victim unnecessarily. If a clear airway cannot be maintained, the victim should be moved to his or her side maintaining in-line stabilization. This position is not demonstrated nor specifically recommended for infant victims.

Rationale - A victim that is lying face up and breathing may develop an obstructed airway by his or her tongue, mucous or vomit. This problem can be avoided by placing the victim on his or her side so that fluid may drain from the mouth. While maintaining an open, clear airway, it is also important to maintain adequate circulation. Since there is no single ideal position for all victims, the videos portray slightly different approaches. The position should allow unimpaired breathing and an open airway.

❑ **Use of Breathing Barriers When Giving Rescue Breaths** - Red Cross training incorporates the practice of using breathing barriers, such as face shields and resuscitation masks, when giving rescue breaths. It is recommended that a breathing barrier be used. However, a responder should not delay care if a breathing barrier is not immediately available or if he or she is unsure of how to use it. A resuscitation mask has advantages over a face shield. The primary advantage is that a resuscitation mask is equipped with a one-way valve that prevents the victim's exhaled breath from entering the responder's mouth.

Rationale - Mouth-to-mouth rescue breathing has proven to be a safe and effective way of providing oxygen to a non-breathing victim and has saved many lives. While using breathing barriers may reduce the risk of disease transmission when giving breaths, the incidence of disease transmission during direct mouth-to-mouth rescue breathing is very low.



□ **Rescue Breaths** - Whenever a breath is given to an unconscious victim, it is considered a "rescue breath". Rescue breaths should be given to an unconscious adult, child or infant victim in such a way to ensure the delivery of effective breaths and to reduce the risk of gastric inflation (air in the stomach) during rescue breathing. An effective breath will cause the victim's chest to clearly rise.

For an unconscious adult victim:

- Each breath should be slow, gentle and last about 2 seconds.
- The responder should pause and take a breath between breaths given to the victim.
- Each rescue breath should cause the victim's chest to clearly rise.

For an unconscious child or infant victim:

- Each breath should be slow, gentle and last about 1 1/2 seconds.
- The responder should pause and take a breath between breaths given to the victim.
- Each rescue breath should cause the victim's chest to clearly rise.

Rationale - Slower breaths reduce the amount of gastric inflation that can cause serious complications such as vomiting, aspiration or pneumonia and restrict lung movement. When the responder pauses and takes a breath between rescue breaths, it ensures maximum oxygen and minimum carbon dioxide in each rescue breath.

▪ **Pulse Check** - Where previously instructed to check for a pulse, responders are now instructed to look, listen and feel for "signs of circulation." Signs of circulation include:

- Normal breathing
- Coughing or movement in response to rescue breaths
- A pulse This check should last no more than 10 seconds.

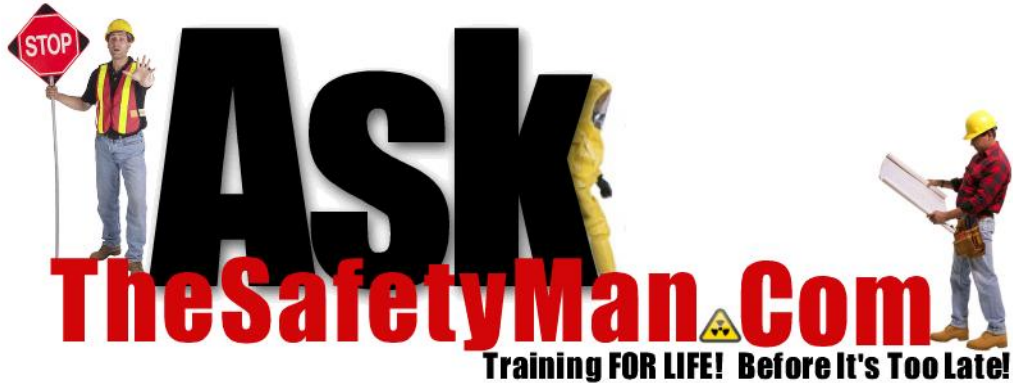


Rationale - Most responders do not accurately determine the absence or presence of a pulse. It is more harmful to delay or choose not to give care to a victim who needs it than to perform chest compressions on or attach an AED to a victim who is not in cardiac arrest. Research shows that the time spent trying to locate a pulse far exceeded the limit of 10 seconds. Note that manufacturers of AEDs contacted by NHQ indicated that the voice prompt on both AED trainers and live devices will continue to instruct the responder to "check pulse." Certified Lay Responders are taught to identify other life signs in assessing a victim's circulation in addition to a pulse check. "Normal breathing" should not be mistaken for agonal breaths.

- Chest Compressions
- CPR for an adult victim will be taught at a ratio of 15 chest compressions to 2 rescue breaths for one or two responders at a rate of **about** 100 compressions per minute.
- CPR for a child victim will be taught at a ratio of 5 chest compressions to 1 rescue breath at a rate of **about** 100 compressions per minute.
- CPR for an infant victim will be taught at a ratio of 5 chest compressions to 1 rescue breath at a rate of **at least** 100 compressions per minute.

Rationale - The rate of compressions has been increased to achieve the best possible blood flow during CPR. For an adult victim, the research shows that CPR is most effective when more uninterrupted chest compressions are delivered. As such, the ratio of 15 chest compressions to 2 rescue breaths will apply in both a one or two responder situation. For infants and children, breathing problems are the most common cause of arrest. Also, the breathing rate of infants and children is faster than in adults. Therefore, for this age group (age 8 and under), the emphasis remains on rescue breaths for maximum oxygenation, so the ratio will remain 5 chest compressions to 1 breath.

□ **Two-Rescuer CPR Technique** - Certified lay responders should be shown two-rescuer CPR where time and interest permit. The information on two-rescuer CPR is provided in the instructors manual and guide for training instructors. Practice time can be allotted but this skill is **not required** for certification for *certified lay responders*.



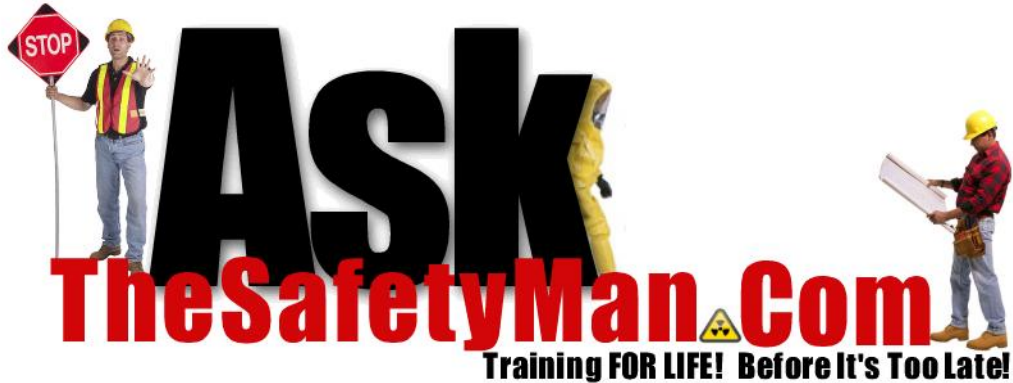
□ **Full CPR Versus Compressions - Only CPR** - Responders will be taught full CPR that includes chest compressions and rescue breaths. The potential question of compression-only CPR is addressed through a frequently asked question (FAQ). If asked, the instructor's response should be: If the responder is unwilling or unable to perform rescue breaths and chest compressions, it is better to either provide rescue breaths or chest compression than nothing at all.

Rationale - CPR that includes chest compressions and rescue breaths is more effective than either skill on its own for a victim of cardiac arrest. As stated, it is better to either provide rescue breaths or chest compressions than nothing at all. Because of difficulty in leading an **untrained bystander** (a person who has no previous knowledge of or training in CPR) on the telephone, an EMS dispatcher may simplify the steps to care for a victim of cardiac arrest to compression-only CPR. The simplicity of modified, compressions-only CPR allows untrained bystanders to provide at least some care for the victim until advanced medical personnel arrive and take over.

□ **Unconscious Choking Victim** - For an unresponsive (unconscious) choking victim, certified lay responders will be taught a modified CPR technique to clear the airway obstruction. Upon verification of the airway obstruction, the responder will begin CPR. Each time the airway is positioned to give rescue breaths, the responder will look for an object in the victim's mouth and remove an object only if one is seen. Then the breath(s) in the CPR cycle are given. This process applies regardless of whether the victim is an adult, child or infant.

Rationale - Early scientific research indicates that chest thrusts are as effective as, and potentially more effective than, abdominal thrusts. This revision results in simplifying training for the certified lay responder by reducing the number and complexity of skills taught in class. The same basic skill of chest compressions and rescue breaths is used on victims who either have no pulse/signs of circulation or are unconscious and choking. Since this skill is a modified CPR technique, responders will be taught CPR before the airway obstruction skill so that the learning process is logically connected and builds on the skills previously learned.

This technique is not new. The chest compression technique basically equates to the "chest thrust" that is currently taught in Red Cross courses for the unconscious choking victim who is noticeably pregnant. This modified CPR technique is virtually identical to CPR in that the compressions-to-breaths ratios are the same as is the rate of delivery and technique of compressions. There is no retilt nor reattempt of



breaths performed during the modified CPR cycle except in the initial assessment or check of the unconscious victim.

AED Use in Children - The use of an AED is not currently recommended for an infant or child less than 8-years old and who weighs less than 55 pounds. For an infant or child less than 8-years old weighing less than 55 pounds who is in cardiac arrest, the initial priorities continue to be support of the airway, breathing and circulation through rescue breaths and chest compressions.

Rationale - The energy levels in current models of AEDs may be too high for use on children less than 8-years old weighing less than 55 pounds.

□ **Jaw-Thrust Maneuver to Open the Airway** - For a suspected head, neck or back injury, the jaw-thrust maneuver will be shown as a technique to open the airway on an adult or child victim. This skill is not required for certification, but responders need to be aware of this alternative airway management technique. This technique is shown in detail in the Workplace Training: Standard First Aid and the Infant & Child CPR videos.

Rationale - The certified lay responder should be familiar with this skill to reduce the possibility of causing further injury to a victim with a suspected head, neck or back injury.

- Sequence for A Responder Who Is Alone - When the responder is **alone, Call First**, that is, call 9-1-1 or the local emergency number before providing care for:
 - An unconscious adult victim or child 8-years old or older, and
 - An unconscious infant or child known to be at a high risk for heart problems.
 - When the responder is **alone**, provide 1 minute of care, then **Call Fast** for:
 - An unconscious victim less than 8-years old;
 - Any victim of submersion or near drowning;
 - Any victim of arrest associated with trauma; and
 - Any victim of drug overdoses.

Rationale - The situations in **Call First** should be assumed to be cardiac emergencies



such as sudden cardiac arrest, and the **time factor is critical**. The research shows that the shorter the time from collapse to first shock from an AED, the greater the chance of survival for an adult or child 8-years old or older. For an infant or child with a known risk for heart problems, early access to the EMS system and the advanced medical care that results increases that victim's chance of survival. In the **Call Fast** situations, the conditions are most often related to breathing emergencies rather than sudden cardiac arrest. In these situations, providing support for airway, breathing and circulation through rescue breaths and/or chest compressions as appropriate is the most important initial step a trained responder should take. Instructors need to be prepared to clarify these situations for course participants.