New First Aid, CPR and Emergency Cardiovascular Care (ECC) Guidelines Released

First Aid Guidelines

The American Red Cross and American Heart Association today announced changes to guidelines for administering first aid. Among the most noteworthy revisions are new and updated recommendations for the treatment of bleeding; recognition of stroke; recovery position; anaphylaxis (severe allergic reaction); use of aspirin with heart attacks; and treatment of hypoglycemia (low blood sugar) in diabetics.

Volunteer experts from 14 national and international organizations joined the Red Cross and the American Heart Association in reviewing 22 separate first aid questions. Experts analyzed the science behind each question and worked to reach consensus on related treatment recommendations with the goal of reducing morbidity and mortality due to emergency events. Last updated in 2010, these recommendations form the recognized scientific basis for most first aid training around the world.

“First aid can be initiated by anyone in any situation, and our responsibility as experts is to designate assessments and interventions that are medically sound and based on scientific evidence or expert consensus. Knowing the correct steps to take in those critical first moments of an emergency can mean the difference between life and death” said Eunice “Nici” Singletary, M.D., co-chair of the International Liaison Committee on Resuscitation (ILCOR) First Aid Task Force and chair of the First Aid Guidelines writing group. Singletary also serves as chair of the American Red Cross Scientific Advisory Council’s First Aid Sub council.

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Bleeding updates: The revised guidelines stress the importance of stopping severe bleeding as a critical first aid skill. Almost all bleeding can be controlled by steady, direct, manual pressure, with or without a gauze or cloth dressing over the wound. The guidelines recommend pressing hard and holding steady pressure for at least five minutes without lifting dressings to see if the bleeding has stopped. While direct pressure is still the first line of defense, the guidelines acknowledge the important role tourniquets and hemostatic agents play in stopping life-threatening bleeding when standard measures fail or are not possible. Tools now available and recommended to first aid providers include tourniquets for severe bleeding on a leg or arm. For open wounds not on an extremity, the guidelines suggest use of a hemostatic dressing, which is coated with a special agent to enhance clotting and help stop bleeding when correctly applied and combined with direct pressure. Hemostatic dressings are readily available online and at pharmacies.
**Hypoglycemia in diabetics:** Early treatment of hypoglycemia (low blood sugar) while the patient is still conscious and still able to follow instructions can prevent progression to more serious hypoglycemia that would require more advanced treatment. To avoid lay responders from giving too much or too little sugar, the new guidelines recommend use of glucose tablets purchased at a retail pharmacy. Glucose tablets have been shown to be more effective at resolving symptoms of hypoglycemia than dietary forms of sugar. If glucose tablets are not available, food sources such as sucrose candies, dried fruit, or orange juice can still be used.

**Recovery position:** If the person is unresponsive and breathing normally, without any suspected spine, hip or pelvis injury, turn the victim to a lateral side-lying position. Studies show some respiratory improvement in this position compared to a supine, or face up, position. In addition to the change from the supine position, the modified HAINES position is no longer recommended due to lack of scientific evidence.

**Anaphylaxis:** Under the revised guidelines for treating anaphylaxis (severe allergic reaction), if symptoms persist beyond the initial dose and arrival of advanced care will exceed 5-10 minutes, the first aid provider may give a second epinephrine injection from a prescribed auto-injector.

**Recognition of stroke:** Approximately 800,000 Americans have a stroke each year, leaving them at risk for long-term disability. Early recognition of stroke through the use of a stroke assessment system decreases the interval between the time that the incident occurs and the time it takes for that person to arrive at a hospital and receive specific treatment. This faster time to treatment may reduce the damage and disability from a stroke. This is the first time that the guidelines have examined the science behind inclusion of a stroke identification system into all first aid courses.

**Use of aspirin with heart attacks:** The updated guidelines clarify that aspirin should be used when helping someone suspected of having a heart attack, characterized by symptoms such as chest pain accompanied by nausea, sweating and pain in the arm and back. If the first aid provider is unclear on whether this is a heart attack or simply someone experiencing non-cardiac related chest pain or discomfort, then aspirin should not be given. Additionally, the updated guidelines emphasize that there is no need to distinguish between enteric versus non-enteric coated aspirin as long as the aspirin is chewed and swallowed.

**CPR and Emergency Cardiovascular Care Guidelines**

Additionally the American Heart Association released CPR and Emergency Cardiovascular Care (ECC) Guidelines. The 2015 guidelines emphasize the need for trained responders to provide high-quality CPR, including the provision of chest compressions and breaths. The most noteworthy revisions for CPR are new and updated recommendations on the rate and depth
of compressions; the role of 9-1-1 dispatcher-guided CPR; and the need to minimize interruptions of chest compressions.

**Chest Compressions:** The updated guidelines place upper limits on both the rate and depth of compressions to better improve outcomes. Chest compressions should continue to be provided for victims of cardiac arrest of any age. Compressions should now be delivered at a range of 100-120 per minute as evidence suggests that rates above this upper limit may lead to poor outcomes. In addition, an upper limit to the depth for compressions has also been recommended. For adults and adolescents who have reached puberty, continue to compress the chest at least 2 inches, but try to avoid compressing the chest greater than 2.4 inches to minimize complications. The depth of compressions for infants and children remain the same at about 1 ½ inches for infants and about 2 inches for children. Both rate and depth of compressions are difficult to judge and the use of feedback devices, if available, may be beneficial.

**Dispatcher-Guided CPR:** The guidelines emphasize the role of the 9-1-1 dispatcher in cardiac arrest. It is often difficult to recognize cardiac arrest due to abnormal breathing patterns that can occur early in the event. Dispatchers should be trained to assist callers in identifying cardiac arrest as well as how to provide dispatcher-guided CPR.

**Interruptions of Chest Compressions:** Minimizing interruptions of chest compressions are a critical focus of the CPR guidelines. All responders should limit any interruptions of chest compressions, such as providing ventilations or performing other critical tasks, to less than 10 seconds. Responders should focus on maintaining as high a chest compression fraction (CCF) time as possible during resuscitation. CCF is the proportion of time that chest compressions are being performed during the duration of the arrest as compared to any pauses such as the time to deliver ventilations or apply the AED. A CCF of at least 60% is desired, with a goal of achieving a CCF of 80% to maximize survival is recommended.

**Keep Training. Don’t Delay.**

While changes in treatment protocols occur every five years as new research emerges, the current training is valid and saves lives. Even as updates are being made to courses, Red Cross programs and associated certifications will be recognized through the duration of the certification period.

**Stay Informed of American Red Cross Program Changes.**

American Red Cross Instructors will continue to receive information on any program changes related to new First Aid, CPR and ECC guidelines through our instructor newsletter.
(iConnection), as well as Instructor’s Corner and the dedicated American Red Cross ECC site for Instructors that can be accessed through the main page of Instructor’s Corner.