Basic Principles of Emergency First Aid

Introduction: Emergency medical situations can happen anytime, anywhere, and to anyone. Workers’ with first aid training are able to react calmly and skillfully in an emergency situation.

Following are the basic elements of immediate Emergency First Aid:

- Look the situation over and make a careful assessment:
  - Determine the cause of the injury, accident, or illness.
  - Do not become a casualty yourself.

- Call for help:
  - If you are not alone designate someone to call for help immediately
  - If you are alone you will need to determine the seriousness of the injury and may need to provide immediate first aid then leave the victim to call for help

- Do not move the victim if:
  - Chance of spine, back, or neck injury is apparent
  - Possibility exists of aggravating the injuries
  - Victims of spine, back, and neck injuries should only be moved if the victim is in greater danger by not being moved (i.e. fire)

- If needed, clear the airway:
  - Lack of oxygen can cause brain damage and may kill a person within a few minutes
  - If a person can not speak, cough, or breathe, the airway may be obstructed

- Control heavy bleeding:
  - Use clean dressing to control excess blood loss by applying constant direct pressure
  - If possible, elevate the injury above the heart or nearest pressure point
  - Avoid use of a tourniquet unless the person is in danger of bleeding to death and you have been trained to apply one

- Treat for shock:
  - Signs include: Cold pale skin; nausea; a rapid, faint pulse; rapid breathing or panting; and weakness.
  - Keep the victim lying down and covered up only enough to maintain body heat.
  - Do not move the victim unless absolutely necessary and get him immediate medical attention
  - Do not become a casualty yourself.

Special Note: A quick, calm response to any emergency situation is imperative. Good first aid skills are needed to prevent further injury and to keep any injury from getting worse and possibly even saving a co-worker’s life. Taking a first aid class and receiving first aid training is a responsible decision for any worker and active member of the community. However, when providing first aid care, one should never exceed the level of training.

Review these principles:

- Know your limitations. – Give only the first aid you are qualified to perform.
- In a medical emergency, always get qualified medical attention to the victim promptly.
- In any emergency, give urgent care first.
- Don’t ever give anyone CPR unless you are trained to do so.
- Always bring help to the victim; do not move an injured person unless absolutely necessary.
- Always know the location of your first aid kits.

Conclusion: Knowing how to properly respond to serious injury accidents requires skills developed through study and training. The effort you expend to learn first aid skills is worthwhile because someday they may help you save a life.

NOTICE: These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.
First Aid – CPR and Chest Compression

**Introduction:** The air we breathe travels to our lungs, where oxygen is picked up by our blood, and then pumped by the heart to our tissue and organs. Cardiac arrest (heart arrest) is an abrupt cessation of the heart. Without immediate, effective chest compressions, a person’s chance of surviving sudden cardiac arrest decreases 7 to 10 percent per minute. Causes of sudden cardiac arrest can include electrocution and asphyxiation (loss of consciousness caused by inadequate oxygen in the work environment, such as in a confined space.) Symptoms can include shortness of breath, sweating, nausea, rapid heartbeat, often complicated by one or more irregular heartbeats, reduced blood pressure, and a sense of impending doom.

Unfortunately, on average, less than one-third of cardiac arrest victims receive chest compressions, which can double or triple a person’s chance of surviving. Many times workers do not help because they are afraid that they will hurt the victim and are not confident in what they are doing.

When a worker experiences cardiac arrest, whether due to heart failure or an injury, the heart goes from a normal beat to an arrhythmic pattern called ventricular fibrillation, and eventually ceases to beat altogether. This prevents oxygen from circulating throughout the body, rapidly killing cells and tissue. Once the heart ceases to function, a healthy human brain may survive without oxygen for up to 4 minutes without suffering any permanent damage. Unfortunately, a typical EMS response may take 6, 8, or even 10 minutes. It is during those critical minutes that chest compressions can provide oxygenated blood to the victim’s brain and the heart, dramatically increasing their chance of survival.

- 0-4 Minutes: brain damage unlikely
- 4-6 minutes: brain damage possible
- 6-10 minutes: brain damage probable
- Over 10 minutes: probable brain death

It is critical to remember that dialing 911 may be the most important step you can take to save a life. If someone besides you is present, they should dial 911 immediately. If you are alone with the victim, try to call for help prior to starting chest compressions.

Provide the operator with:
- Your location
- Your phone number
- Type of emergency
- Victim’s condition

If you suspect that the victim has sustained spinal or neck injury, do not move or shake him. Otherwise, shake the victim gently and shout Are you okay? to see if there is any response. If the victim is someone you know, call out their name as you shake them.

In order to determine if the victim’s heart is beating, place two fingertips on the carotid artery, located in the depression between the windpipe and the neck muscles, and apply slight pressure for several seconds. If there is no pulse then the victim’s heart is not beating.

When performing chest compressions, proper hand placement is very important.
- To locate the correct hand position, place two fingers at the sternum (the spot where the lower ribs meet) then put the heel of your other hand next to your fingers. Place one hand on top of the other and interlace the fingers.
- Lock your elbows and using your body’s weight, compress the victim’s chest. Push down firmly with only the heel of your hand touching the chest, then release. The depth of compressions should be approximately 1½ to 2 inches.
- If you feel or hear slight cracking sound, you may be pressing too hard. Do not become alarmed and do not stop. Damaged cartilage or cracked ribs are far less serious than a lost life. Simply apply less pressure as you continue compressions.
- Count as you compress continually at the rate of about 3 compressions for every 2 seconds or 100 times a minute.
- Continue performing compressions until help arrives.

**Remember:** Do not leave the victim alone.
- Do not try to make the victim drink water.
- Do not throw water on the victim’s face.
- Do not prompt the victim into a sitting position.
- Do not try to revive the victim by slapping the face.

**Conclusion:** Workers should receive First Aid training once a year. Never exceed your training level of First Aid.

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Company Name: ___________________________________________ Job Site Location: ________________________________

Date: ___________ Start Time: ______ Finish Time: ______ Foreman/Supervisor: _________________________________

Work-Site Hazards and Safety Suggestions: ________________________________

Personnel Safety Violations: ________________________________

Employee Signatures:  
(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent, job-related injury or illness.)

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Foreman/Supervisor’s Signature: ________________________________