

# CHAPTER 8

## FIRST AID

### I. GENERAL

Even though First Aid will not prevent accidents it is very important. It can save lives and reduce the severity of the injury. Every employee must be familiar with the basic fundamentals of first aid in order to protect himself or herself and to aid fellow employees. It must be remembered that first aid is exactly what the term implies - emergency treatment that is given immediately following an injury. First aid is not meant to replace treatment by a physician.

There will be at least one person who has a valid certificate in first aid training, the American Red Cross or equivalent, available at work sites to render emergency first aid. In addition to the required first aid training, we also expect our employees to receive CPR training. In this way employees are able to respond to any emergency that may occur; this is particularly important if medical assistance is not within 3-4 minutes of the work site.

A. First Aid Supplies - The Company provides proper supplies for all locations and motor vehicles; however, if these supplies are not replenished as they are used, they are of no value when needed. It is every employee's responsibility to see that adequate supplies are obtained when the supplies are used. If you do not have the authority to purchase these supplies yourself, you should notify your manager so that arrangements can be made to replenish these supplies. First aid kits will consist of appropriate items and stored in a weather proof container. Items will be sealed and wrapped in individual packages.

B. To help ensure completeness, the content of first aid kits shall be checked prior to going out on any job site (each job) and/or on a weekly basis by the Operator or Safety Coordinator. The Operator or Safety Coordinator shall ensure that the first aid kit is assessable to every employee either in the shop or outside location.

C. When An Accident Occurs - If an accident does occur, it will be necessary to ensure that all proper procedures are followed. The immediate response should be to render proper first aid. Be sure that you report the accident as soon as possible. If the injury is such that it is safe to do so, you should transport the victim to an approved physician or hospital. Once the victim has been fully cared for it is important that all accident reports be completed.

### II. FIRST AID PROCEDURES

A. Stop The Bleeding - Severe bleeding can be fatal. Cover the wound with the cleanest cloth immediately available and control the bleeding with direct pressure to the wound. Most bleeding can be stopped with this method.

Severe bleeding from the extremities may be controlled by pressing directly on the "pressure points". For an arm, press the blood vessel against the upper arm bone with the fingers on the inside of the arm, half-way between the shoulder and the elbow. For a leg, press the blood

vessel against the pelvic bone with the side or heel of the hand at the mid-way point in the crease between the thigh and the body.

A tourniquet should only be used as a last resort when you cannot control the bleeding with direct pressure or a pressure point. If a tourniquet is applied, leave it in place until a doctor removes it. Attach a note to the injured person stating where you applied the tourniquet and at what time.

**B. Restore Breathing - Utilize the mouth-to-mouth breathing method.**

1. Position victim on his or her back.

NOTE: IF THERE IS A POSSIBILITY OF A NECK INJURY - AN ACCIDENT INVOLVING AN AUTOMOBILE, A FALL, SPORTS OR DROWNING - CAUTION MUST BE USED WHEN POSITIONING THE VICTIM AND OPENING THE AIRWAY. IF NO NECK INJURY IS SUSPECTED, THE FOLLOWING SHOULD BE USED.

2. Tip the head and lift the chin to open the airway, check for breathing.
3. If there is no breathing attempt to give the victim two full, slow breaths, breathing 1 to 1 1/2 seconds per breath.
4. If you are unable to give these breaths, re-tip the head and try again. Be sure that you have the head tipped at an angle where the chin is pointing up and you have placed your mouth tightly over the victim's mouth and pinched the victim's nose with your fingers.
5. Blow into the victim's mouth until you see the chest rise.
6. Remove your mouth from the victim's and let the air come out.
7. Repeat this breathing at a rate of one breath every 5 seconds for an adult and every 3 seconds for a child.
8. Keep this up until the victim breaths on his or her own or until you are relieved by other trained personnel or a physician.
9. If possible send someone to get help.

NOTE: IF YOU ARE UNABLE TO GET AIR INTO THE VICTIM, ROLL THE PERSON ONTO HIS OR HER SIDE AND GIVE FOUR SHARP BLOWS TO THE VICTIM'S BACK BETWEEN THE SHOULDER BLADES TO DISLodge ANY FOREIGN MATTER. AFTER GIVING THE BACK BLOWS TRY THE BREATHS AGAIN.

**C. Burns**

1. First degree burns - are indicated by a reddening of the affected skin. Immerse the burn quickly in cold water to stop the pain and cover with a thick, dry, sterile dressing.

Thermal First Degree Burns	Involves superficial layers of skin.
Possible Cause	Overexposure to the sun. Light contact with hot objects. Scalding with hot water.
Symptoms	Red Skin. Pain. Slight Swelling.
Action	Immerse in cool water or apply cool moist compresses until pain ceases. Apply only sterile or clean, dry dressing. Do not apply ointment.

2. Second degree burns - are indicated by blisters developing on the burned area. To treat, cut away loose clothing to expose the burned area. Cover the burned area and the surrounding area with a sterile dressing large and thick enough to keep air out. Treat for shock. Do not break blisters or use ointment.

Thermal Second Degree Burns Involves more of the skin tissue.

Possible Causes	Extensive exposure to the sun. Contact with hot liquids. Contact with hot objects. Flesh burns from gasoline, kerosene or other products.
Symptoms	Same as first degree. Skin is blistered.
Action	Immerse in cool water or apply cool, moist compress. Gently blot dry with sterile gauze or clean cloth. Apply only sterile or clean, dry dressing. Do not apply ointment. Elevate burned area if possible. Prohibit victims of foot or leg burns from walking. Place victims of face burns with head elevated and observe for breathing difficulty. Be prepared to provide rescue breathing. Treat for shock as needed.

3. Third degree burns - are indicated by the skin being charred or destroyed and the tissues damaged. Treat the same as second degree burns.

Thermal Third Degree Burns	Involves full thickness of skin tissue.
Possible Causes	Extended contact with hot objects. Contact with open flames. Extended contact with hot liquids.

Symptoms	<p>May look like a second degree burn.          Skin may be broken.          Skin may have white or charred appearance.          If only third degree burns are present, pain may be absent.</p>
Action	<p>Maintain open airway. Observe for breathing problems; be prepared to provide rescue breathing. Cover burns with thick sterile or clean dressings. Elevate burned area if possible. If arrival at the emergency medical facility is more than two hours away, and the victim is conscious and not vomiting, give warm sips of this weak solution: one teaspoon salt and one-half teaspoon of baking soda dissolved in one quart of water. Apply cold pack, but do not allow water or ice to touch burn. Treat for shock.</p>

D. Broken Bones (fractures) - Do not move the victim unless there is imminent danger that makes movement necessary. Place the limb in as normal a position as possible without causing excessive pain. Apply an emergency splint to support the injured part in one position, reduce the pain and prevent further injury. DO NOT try to set the fracture.

There are two types of fractures that will be found:

1. Simple fracture - there is a broken bone, but no open wound.
2. Compound fracture - the broken bone is accompanied by an open wound. You will need to control the bleeding and apply a sterile dressing before splinting.

In some types of fractures it is necessary to use extreme care when rendering first aid as the treatment can cause additional trauma to the individual:

1. Fractured spine - keep the person flat and do not move him or her into any other position.
2. Fractured neck - keep the person on his or her back with the head well supported in a straight position. Do not lift the head. Only a well trained person should apply splints to the back of the neck.
3. Fractured skull - keep the person completely quiet. Remove any foreign matter from the mouth. Turn the head to the side so that secretions may drain from the mouth.

E. Shock - In every injury there is some shock and severe shock can cause death. Shock is the failure of the body's systems to do work due to the lack of blood circulation after an injury. You can usually tell shock by the victim's pale face, moist skin and accompanying nausea.

1. Get medical aid.
2. Place the head level or lower than the feet.
3. Keep the victim warm to maintain normal body temperature.
4. Give fluids, if not unconscious or nauseated.

F. Heat Exhaustion - Working for extended periods in an area of elevated temperatures can result in heat exhaustion.

1. The symptoms of heat exhaustion include the following:

- a. Pale, cold, clammy skin
- b. Rapid, weak pulse
- c. Weakness, headache or nausea
- d. Cramps in abdomen or limbs
- e. Excessive perspiration

2. Heat exhaustion should be treated as follows:

- a. Move the victim to a cool place in the shade.
- b. Make the victim lie down so the head is lower than the rest of the body.
- c. Give the victim water to drink and, if available, stir one-quarter teaspoon of salt into the glass of water.
- d. Get medical help.

G. Heat Stroke - Heat stroke is life threatening, and immediate measures must be taken to cool down the victim and get medical care.

1. The symptoms of heat stroke include the following:

- a. Flushed, dry, hot skin
- b. Rapid, strong pulse
- c. Temperature is well above normal, and skin feels hot to the touch
- d. Headache, dizziness, nausea
- e. Often, the victim is unconscious.

2. Heat stroke should be treated as follows:

- a. Move the victim to a cool place.
- b. Treat for shock.
- c. Cover the entire body with cold water, using either a sponge or a hose. Cover the victim with ice, if it is available. Obtain medical help immediately.
- d. If the victim is fully conscious and can swallow, administer water or, if available, one-quarter teaspoon of salt stirred into a glass of water.
- e. Do not give the victim alcoholic beverages.

H. Puncture Wounds - Are dangerous because germs are driven in deep and there is little bleeding to wash the wound clean. Cleanse the wound with soap and water, then cover with a sterile dressing and bandage. See a doctor.

I. Minor Cuts, Scratches And Abrasions - There is danger of infection in even the smallest wound. When medical advice is not available, wash your hands and then clean the wound thoroughly. Cover with a dry sterile dressing. If redness or swelling develops, it is a sign of infection requiring a doctor's attention.

J. Sprains - Involve ligaments and other tissues around the joints that are stretched or torn. Elevate the injured part, apply ice packs or cold cloths. Call a doctor if swelling or pain persists. Do not use heat!

K. Strains - Involve muscles and are most serious when affecting the back. Rest and apply mild heat to the injury. Use wet towels.

L. Bruises - Result in skin discoloration and swelling. Apply cold packs or ice bags.

M. Moving Injured People - Except in extreme danger situations, do not move the victim until after an examination and first aid treatment. If necessary to move from danger, pull the victim lengthwise, preferably with a blanket or skid placed beneath him or her. Avoid twisting, bending or shaking the victim. The victim's head should be stabilized prior to moving, to prevent additional injuries.

For serious injuries, use a stretcher. If necessary, make an improvised litter from boards, poles, pipes, blankets or clothing. If no means of moving is available, take care of the victim where he or she is until help arrives.

N. Snake Bite - Make the victim lie down immediately and stay completely quiet. Obtain medical help as quickly as possible and tell the doctor the kind of snake involved. Do not give the victim stimulating drinks or let him or her walk. Drive or carry the victim to a doctor or hospital. Remember it is important to keep the injured person Quiet, Protected and Reassured.

O. Eye Contact With Chemicals - Immediately flush eye with water. Keep the eye open and as wide as possible while flushing. Continue flushing for at least 15 minutes. DO NOT bandage the eye. Seek medical treatment after flushing. Emergency eye wash kits are provided for the field to ensure suitable facilities/supplies are available.

### III. Blood Borne Pathogens Awareness

Cardinal Surveys Company does not reasonably anticipate exposure of their employees to blood borne pathogens during the normal performance of their job duties. We do not work in an environment that places you and your fellow employees in contact with blood borne pathogens and we do not have any employees that have exposure due to their specific job title or job duties. However, we want all employees to be aware of how this may take place in the event of an accident that may require contact with an injured individual while giving first aid.

*Note: Cardinal Surveys Company does not require any employee to render first aid if they believe they are not qualified to help the injured person. Employees trained in emergency first aid do so as a Good Samaritan and should follow universal precautions.*

A. Blood borne pathogens are microorganisms that can infect and cause disease in those who come in contact with blood or body fluids containing the pathogen. Examples of blood borne pathogens include, but are not limited to:

1. Human Immunodeficiency Virus (HIV)
2. Hepatitis B
3. Hepatitis C
4. Non A, Non B Hepatitis
5. Syphilis

B. Transmission of blood borne pathogens can occur when accidentally punctured by a sharp object that is contaminated with the pathogen. (a needle, broken glass, or other "sharps") or when there is contact between broken or damaged skin and infected body fluids or contact between mucous membranes and infected body fluids.

C. Unbroken skin forms a barrier against blood borne pathogens, but infected blood or body fluids can enter the system through open sores, cuts or abrasions, acne and any sort of damaged or broken skin such as sunburn or blisters. Blood borne pathogens can also be transmitted through the mucous membranes of the eyes, nose, or mouth.

D. It is possible that at any time while performing your normal job duties, you could unknowingly be exposed to blood borne pathogens. It is recommended that you wash your hands on a regular basis during the day to help prevent being infected at either the ladies or mens facilities with the provided antiseptic soap. If facilities are not available, an antiseptic towelette provided with the employees first aid kit is acceptable.

E. In the event that an employee renders first aid to a fellow employee or to an accident victim, it is required that the employee use the required Personal Protective Equipment. Personal Protective Equipment is provided at no cost to the employee.

F. Equipment that protects you from contact with blood or other potentially infectious materials include:

1. Gloves made of latex, rubber, or other waterproof materials. If cuts or sores are present on the hands, cover with a bandage as an additional precaution before putting gloves on. Do not use gloves that are damaged. (torn or punctured). Remove gloves carefully after use, avoid touching the outside of the gloves with bare skin. Dispose of contaminated gloves in the proper container.
2. Eye Protection/Face Shield should be used whenever there is a risk of splashing or vaporization of contaminated fluid, such as while cleaning up spills or during certain laboratory procedures.
3. Mouth protection when administering CPR.
4. Disposable Garment for covering your clothing.

G. After rendering first aid, it is important to dispose of any Personal Protective Equipment or clothing that has come in contact with or exposed to potentially infectious material. The recommended procedure will be to transfer any infectious material to the First Responders.

If First Responders were not/are not needed, then any Personal Protective Equipment or exposed clothing will be placed in a leak proof bag or container for handling, storage and transport. All leak proof bags and containers must be properly labeled "bio-hazard". If a properly labeled bag is not available, then a red plastic bag is permissible to use as long as it is tagged bio-hazard. These bags will be disposed of properly as directed by a Supervisor.

H. In the event of an accident that is controlled by the injured person, they will need to clean and sanitize any areas that may have possible contamination from blood borne pathogens and dispose of any material used during the clean up operation.

I. Cardinal Surveys Company will hire a qualified outside service to clean and sanitize an area in the event of an accident that covers a large area with the potential of harmful pathogens.

J. All training in first aid/CPR, blood borne pathogens/blood borne pathogen awareness, is provided to the employee at no charge to the employee. Training is provided at hire, yearly, bi-yearly and/or as required.

K. HEPATITIS B VACCINATION - Cardinal Surveys Company does not have any job duties that would expose an employee to an occupational exposure to Hepatitis B. Therefore, the employer will not provide vaccine for this type of exposure. If at some time there is an issue to occupational exposure of Hepatitis B, Cardinal Surveys Company will address this issue and provide our employees the proper training and offer them the Hepatitis B vaccination at no cost to the employee.

L. RECORDS/RECORD KEEPING - Cardinal Surveys Company does not keep or maintain personal employee health records on site. However, Cardinal Surveys Company does keep employee occupational exposure records, medical records for DOT and other medical questionnaires that may be required for employment. These records are kept for the prescribed time as required by 29 CFR 1910.1020. These records are secure and will not be released unless Cardinal Surveys Company is granted permission from the employee in writing.

1. Employees's training records will be kept with the employee's file at the company's corporate site for the time period of 3 years from the date of training. All employee training records shall be made available to an employee if he or she makes a request for these records.

2. Cardinal Surveys Company will provide for the transfer of the records if Cardinal Surveys company were to be purchased or merged with another company, but only if the employee signs a document giving Cardinal Surveys Company the right to release his records.

3. Cardinal Surveys Company will keep and maintain any occupational exposure records if the employee is exposed to a known hazard. These records can be viewed anytime during normal business hours at the request of the employee. Employee records are kept secured at Cardinal Surveys Company located at 1704 Samson Road, Odessa, TX 79763

M. Cardinal Surveys Company makes available the exposure control plan that is found in the following section of the employee's Safety Manual: BLOOD BORNE PATHOGENS AWARENESS to all employees at hire and it is reviewed yearly and/or as needed.