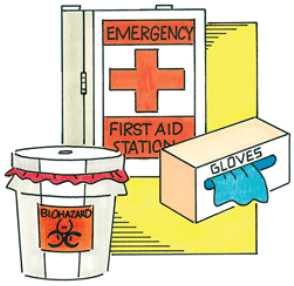
FIRST AID AND BLOODBORNE PATHOGENS

Like any other job, rendering first aid has its risks. Designated first aid providers need to know how to keep themselves safe while helping an injured person.

WHAT IS FIRST AID?

First aid is emergency care provided for injury or sudden illness before professional emergency medical care is available. First aid providers are designated by their employer, and they are trained to use a limited amount of equipment to perform an initial assessment of injuries and illnesses and provide immediate life support and care before emergency medical service (EMS) professionals arrive.



All employees should know how to report injuries and call for emergency first aid assistance.

WHERE ARE THE REGULATIONS?

The Occupational Safety and Health Administration's (OSHA) requirements for first aid are found in 29 CFR 1910.151. When there is no nearby infirmary, clinic, or hospital that can be used to treat injured employees, the employer must train persons to render first aid.

ROLES OF THE FIRST AID PROVIDER

The first aid provider is an important part of the EMS system. Designations of professional emergency medical care providers in the EMS system include: First Responder, Emergency Medical Technician (Basic and Intermediate), and Paramedic.

First aid providers:

- Take care of the safety of the overall scene - the ill/injured person, bystanders, and themselves.
- Safely gain access to the ill/injured person.
- Assess the ill/injured person to identify life-threatening conditions.
- Provide emergency care to the ill/injured person. (If the injured/ill person is responsive and alert, he or she must consent to receive first aid.)
- Turn over care to the EMS professionals.

Because of the stress and unpredictability involved in situations where an injury or illness has occurred, the first aid provider's first priority always must be the safety and well-being of the first aid provider.

FIRST AID TRAINING

First aid training should be conducted by qualified instructors. Trainees should have plenty of time to learn the material, ask questions, and practice first aid procedures.

In all cases involving serious injuries or illnesses, the most important first step in any first aid procedure is to call for EMS professionals.

Moving the victim

The greatest danger in moving a victim is the possibility of aggravating a spine injury. An ill/injured person should be moved immediately only when there is an immediate danger to the person (fire, flood, collapse, etc.) or if life-saving care can't be given because of the person's location or position (a cardiac arrest victim sitting in a chair). If an emergency move is necessary, the first aid provider should provide as much protection to the spine as possible.

CARDIOPULMONARY RESUSCITATION AND AEDS

First aid providers should receive specialized training in how to administer Cardiopulmonary Resuscitation (CPR). CPR is administered when an unconscious victim has no signs of heart activity, such as normal breathing, movement, or response to other stimulation. In CPR, the first aid provider uses techniques for artificial respiration and chest compressions.

Some employers have Automated External Defibrillators (AEDs) available in the workplace. First aid providers who have received specialized training in the use of AEDs can use them to help restore a normal heart rhythm through the application of an electric shock through the victim's chest wall.

Burns

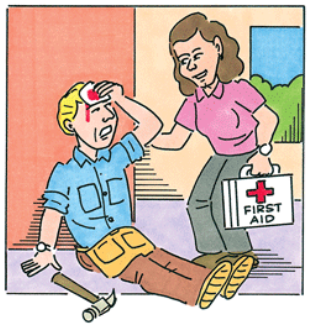
First aid providers should be trained to recognize the severity of burns.

First degree burns are the least severe - they result in redness or discoloration, mild swelling, and pain. A recommended treatment may be to immerse the area in cold water. Recommended treatment for chemical burns may include prompt flushing with plenty of clean water and removing contaminated clothing.

Second degree burns involve more tissue damage - they result in blisters, swelling, and pain. A recommended treatment may be to immerse the area in cold water and/or apply a cold, wet compress. Keeping the burned area elevated may help reduce swelling. Blisters should not be broken.

Third degree burns involve deeper tissue damage - the skin may look charred or white. Recommended first aid treatment may include covering the burned area with a sterile dressing and getting EMS assistance as quickly as possible.

Bleeding



First aid providers should be trained on how to help control bleeding. In many cases, the wounded part of the body should be elevated to help decrease blood flow to the area. In direct pressure, a compress is held with pressure directly on the wound. For severe bleeding, it may be necessary to slow the blood supply to the wounded area by applying pressure at a "pressure point" - pressing against an artery near the armpit or groin.

Fractures

Fractures involve a crack or a break in a bone. Fractures may be simple or compound. A fracture may or may not involve the bone penetrating the skin to cause an open wound. Victims of fractures may remember hearing a bone crack during the injury. The fracture will cause pain, movement of a joint or limb may be abnormal, and there may be swelling or noticeable deformities in the area. First aid providers should be trained to keep the patient stable, control severe bleeding, and immobilize the affected area without making the injury more severe.

Shock

A severe injury can cause the victim to go into shock - a condition where normal body functions are depressed. In early stages of shock, the victim may become pale, have a weak, rapid pulse, and have abnormal breathing. In advanced shock, the victim's blood pressure drops, body temperature falls, and the patient is in critical condition. First aiders need to be trained to recognize and treat shock. Recommended treatment may include covering the victim to maintain body temperature. It may also be beneficial to keep the patient lying down.

Other injuries

A first aid provider can encounter many other injuries and illnesses. The information in this chapter is only meant to make you aware of the need to have first aid providers and to outline some of their responsibilities. Anyone who will be providing first aid needs thorough training.

UNDERSTAND BLOODBORNE PATHOGENS

The blood borne pathogens standard outlines practices to help protect workers from getting infections caused by germs carried in blood. It applies to designated first aid providers as well as to healthcare employees.

WHERE ARE THE REGULATIONS?

OSHA regulations governing exposure to blood borne pathogens are found in 29 CFR 1910.1030. It is the employer's responsibility to develop an exposure control plan; provide training to those workers potentially exposed to blood borne pathogens as part of their job duties; implement engineering and work practice controls; enforce the use of personal protective equipment; offer a hepatitis B vaccine, exposure evaluation, and follow-up; and use signs and labels to warn of potential hazards.

If you are a health professional, a designated first aid provider in your City, or are involved in maintenance or housekeeping work where you could reasonably be expected to be exposed to blood borne pathogens, you need to know about this standard.

"Good Samaritan" acts performed by undesignated employees are not covered by the standard, but undesignated first aid responders may want to know exposure controls anyway, to protect themselves if they voluntarily respond in the event of an emergency.

KEY DEFINITIONS

Because of the technical nature of some of the words used when talking about blood borne pathogens, some key definitions are spelled out here. Refer back to these definitions if you don't understand something later in this chapter.

Blood borne Pathogens: Microorganisms present in human blood that can cause disease in humans. These include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Exposure Incident: A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from doing one's job.

Occupational Exposure: A reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious material that may result from doing one's job.

Other Potentially Infectious Materials (OPIMs): Certain specific types of body fluids outlined in OSHA's standard, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

Parenteral: A piercing of mucous membranes or the skin barrier by means of a needle stick, human bite, cut, and/or abrasion.

Universal Precautions: An infection control approach whereby all human blood and certain body fluids are treated as if they were known to be infectious for HIV, HBV, or other blood borne pathogens.

REQUIRED ELEMENTS OF THE STANDARD

When workers are exposed to blood or OPIMs on the job, the standard requires that employers develop an exposure control plan.

Employers must also provide training on the following subjects to affected workers:

- Blood borne diseases and how they are spread.
- The exposure control plan.
- Engineering and work practice controls.
- Personal protective equipment.
- Hepatitis A or B vaccine, exposure evaluation, and follow-up.
    - These vaccines are available at any time at the Employee Health and Wellness Center. Please check with your supervisor to arrange for your titer testing and vaccines.
- How to respond to emergencies involving blood.
- Signs and labels used to warn of potential hazards.

Exposure Control Plan

While exposure control plans will vary from workplace to workplace, they have some common elements:

- Identification of job classifications and, in some cases, tasks where there is exposure to blood and other potentially infectious materials.
- A schedule of how and when the provisions of the standard will be implemented, including schedules and methods for communication of hazards to employees, hepatitis B vaccination and post-exposure evaluation and follow-up, recordkeeping, and implementation of:
    - Engineering and work practice controls.
    - Personal protective equipment.
    - Housekeeping.
- A description of how employees involved in direct patient care are involved in the selection of safer medical devices and other control measures.
- Procedures for evaluating the circumstances of an exposure incident.

The employer must keep the exposure control plan up to date.

Engineering controls and work practices

The employer must also institute engineering controls and work practices that will minimize the possibility of exposure. Such things as hand washing, prevention of needle sticks, and minimization of the splashing or spraying of blood fall under this category. Engineering controls eliminate hazards at their source. This includes the use of autoclaves and containers for used sharps. Engineering controls must be checked and maintained on a regular schedule to keep them in good working order.

In the healthcare industry, employers must evaluate, select, and use appropriate safer medical devices, such as self-sheathing needles or needleless systems.

Employers must provide accessible facilities for hand washing. Wash hands immediately after removing gloves or other protective equipment, and after any hand contact with blood or OPIMs. If a sink isn't available for hand washing, antiseptic cleansers must be provided. In this case, wash with soap and water as soon as possible.

Do not bend, shear, break, remove or recap any used needle or sharp. Dispose of used sharps in the proper containers. These containers must be puncture resistant, be properly labeled, and have leak-proof sides and bottoms.

Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited in areas where there is a potential for exposure. Food or drink cannot be stored in refrigerators, freezers, shelves, cabinets or on counter tops where blood is stored or where blood or OPIMs may be present.

Personal protective equipment

Employers must provide, and employees must use, personal protective equipment (PPE) when the possibility exists for exposure to blood or OPIMs.

Personal protective equipment must be accessible and available in appropriate sizes. (Hypoallergenic or powder less gloves must be available to those allergic to regular gloves.) PPE must be kept clean and in good repair.

Single use gloves must be replaced as soon as possible after they are contaminated or if they become torn or punctured. These gloves should never be reused. Various other types of PPE include plastic visors, half-face masks, full body gown, goggles, etc.

Housekeeping techniques

Housekeeping staff may be occupationally exposed to blood or OPIMs if they clean up after some first aid incidents. Therefore, housekeeping staff need to follow universal precautions and proper decontamination procedures.

Equipment and work areas must be cleaned and decontaminated as soon as feasible after contact with any blood or OPIMs.

Contaminated laundry should be handled as little as possible. Laundry must be bagged where it was contaminated. Wet laundry must be placed in leak-proof bags. All employees who handle contaminated laundry must wear gloves.

Hepatitis B Vaccine

A common blood borne risk is infection by the Hepatitis B virus. Because of this risk, the City has made the Hepatitis B vaccine available to you. Contact your supervisor to arrange for a titer test and vaccination at the Employee Health and Wellness Center.

If you refuse to be vaccinated, you must sign a declination form. If you change your mind later on, the City will still provide the vaccine.

See the Forms section of the manual for the Hepatitis B form.

Exposure incident

An exposure incident is a specific work-related eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIMs. When an exposure incident is reported, the employer will arrange for an immediate and confidential medical evaluation. The medical evaluation must:

- Document how the exposure occurred.
- Identify and test the source individual if feasible.
- Test the exposed employee's blood, if consent is obtained.
- Provide counseling.
- Evaluate, treat, and follow up on any reported illness.

Communication of hazards

All warning labels must bear the biohazard symbol, be printed in fluorescent orange or orange-red, and have lettering of a contrasting color.

Red bags or containers may be used as a substitute for labels. Labels must be placed as close to the container as possible on all packages of regulated waste, refrigerators/freezers containing blood or OPIMs, and other containers used for shipping or storing blood and OPIMs.

Blood that has been tested and found free of HIV or HBV and released for clinical use and decontaminated regulated waste do not require labels.

Recordkeeping
The employer must keep records of employee training sessions for three years.

Each record, which must be available to the employee, should include:

- Name and ID number (optional).
- Hepatitis B vaccination status.
- Results of all exams, testing, and follow-up procedures.
- Copy of the healthcare professional's opinion.
- Copy of information provided to the healthcare professional.

These records are confidential and can be released only with the employee's written consent or if required by law.

To protect yourself, follow the blood borne pathogens exposure control the City has set up with the Florida Hospital PEN Program.

See the Forms section of this manual for the checklist to follow in the event of an exposure.

WORK AT WORKING SAFELY

If you're a first aid provider, healthcare employee, a maintenance or janitorial person responsible for cleaning up blood or OPIMs, or any other potentially exposed employee, then you need to know about:

1. The written exposure control plan.
2. The training to be provided to you.
3. Engineering controls and work practices to minimize the chance of exposure.
4. Personal protective equipment.
5. Housekeeping techniques to protect you.
6. The hepatitis B vaccine you are entitled to.
7. The use of labeling and red bags to indicate contaminated waste.
8. Steps to be taken in the event of an exposure incident.