

BLOODBORNE PATHOGENS: INFO FOR ALL EMPLOYEES

It is most applicable to anyone who is trained as a First Aid or CPR provider. If you have employees that are exposed to blood or body fluids, you must have a written Bloodborne Pathogens Plan.

Throughout the industrialized world, great strides have been made in promoting knowledge about Bloodborne Pathogens. Training programs, such as this one.... have been designed to educate people...and to make them aware of the protective measures that should be used to avoid exposure to Bloodborne Pathogens. This updated program will provide information about Bloodborne Pathogens...and diseases relating to Bloodborne Pathogens. We will discuss and demonstrate proper methods of infection control and exposure control that will help you to avoid the risk of contamination with potentially infectious materials.

There are governmental regulations and standards relating to bloodborne pathogens. The purpose of these standards is to eliminate or to minimize an employee's risk of an occupational exposure to hepatitis B virus, also referred to as HBV... Human Immunodeficiency Virus also referred to as HIV... and to other potentially infectious bloodborne pathogens. These standards do not automatically apply to employees if they are trained in first aid... However, they do apply to employees who are required by their employer to administer first aid. People who perform unanticipated A Good Samaritan@ acts are not covered, but certainly it is an advantage to anyone, to be aware of the precautionary measures that should be taken to avoid an exposure. Before we go further let's define what is meant by an occupational exposure. An occupational exposure could be any reasonably anticipated skin, eye, mucous membrane or skin puncture, contact with blood, or other potentially infectious materials that may result from the performance of an employee's duties.

BLOODBORNE DISEASES

Although the information is directed at occupational hazards in the workplace, the information in this program can be used by anyone, regardless of their job. Let's now examine bloodborne diseases and what are bloodborne pathogens. Actually, they are bacteria, viruses... and other microorganisms carried in the blood stream. These microorganisms may cause disease and some pathogens can be deadly. Some of these pathogens that are of greatest risk include Hepatitis B virus or HBV, Hepatitis C virus or HCVand human immunodeficiency Virus or HIV. Hepatitis C infects up to 150,000 people each year in the United States alone. Hepatitis C attacks and inflames the liver. Between 8,000 to 10,000 individuals die each year from HCV related chronic liver disease. People most at risk for HCV include people who have received blood transfusions before 1990, intravenous drug users who share needles, household members and sexual partners of infected persons... and of course, persons in the medical field..... who are exposed to infected blood. Many people who are infected may not experience any signs or symptoms at all. There are tests now available to assist in making the diagnosis of HCV. ...Although no preventative medication or treatment has been conclusive, an antiviral medication is now available that has been shown to be helpful for some people with HCV.

Hepatitis B or HBV attacks the liver... and is the major infectious bloodborne occupational hazard to health care workers. HBV is considered to be extremely infectious. The exposure to extremely small amounts of HBV positive blood may transmit infection. Fortunately, there are vaccines available to prevent the development of HBV infection.

The Human Immunodeficiency Virus or HIV attacks the body's immune system, weakening it so that it cannot fight and destroy other deadly diseases. HIV causes Acquired Immune Disorder Syndrome or AIDS. AIDS is a fatal disease, and while treatment for it is improving, there is no known cure. Some of the other less common bloodborne diseases include Hepatitis D, Malaria, Syphilis, Viral Hemorrhagic Fever.... and

Ebola.

MODES OF TRANSMISSION

Let's now take a quick look at how these potentially deadly viruses can pass from one person to another. The HIV and HBV bloodborne pathogens may be transmitted from the infected individual to other individuals by blood... or Other Potentially Infections Materials or OPIM such as:

FLUIDS, including semen, vaginal secretions, fluids around the brain and spinal cord, around the joints, abdomen, uterus, heart, saliva from dental procedures... or saliva containing blood, ...breast milk... and any body fluid visibly contaminated with blood. In situations where it is difficult or impossible to differentiate between body fluids, it must be assumed to be infectious... Bloodborne pathogens can be transmitted by any detached body tissue or organ from a human, living or dead. It's extremely important for you to understand how exposure and transmission can most likely occur in your particular work... or life setting. HBV and HIV are most commonly transmitted through sexual contact, ...sharing of hypodermic needles, from mothers to their children at or before birth, accidental puncture wounds, contact between broken or damaged skin and infected body fluids ...and contact between mucous membranes and infected body fluids.

LIFESTYLES

You may be at risk if you have had more than one sexual partner, you have unprotected sex, you or your partner have ever been diagnosed with another sexually transmitted disease, such as herpes, gonorrhea, syphilis, chlamydia... or genital warts... You or your partner have had unprotected sexual contact with an infected person. ... You or your sexual partner is an intravenous drug user.

WORKPLACE RISKS

Certainly, your employer must determine which jobs are at risk. The employer must advise those employees to the exposure risks and the measures to take to reduce such exposure. Occupational risks include... professionals in the health care industry, first responders, such as fire, police, Emergency Medical Technicians who give first aid, medical attention or through other exposures. An occupational risk includes coming into contact with blood or body fluids at work. This could include morticians; custodial workers... and human service care providers.

FIRST AID PROVIDERS

A common barrier to action in an emergency is fear of disease transmission between an ill or injured person and a first aid provider. As an example, the perceived risk of disease transmission during CPR has reduced the willingness of some laypersons to initiate mouth-to-mouth ventilation... in unknown victims of cardiac arrest. Because of disease transmission concerns, first aid providers must learn the importance of Standard precautions... or body substance isolation. They must know what steps to take for personal protection from bloodborne pathogens. These steps include how to use, remove... and discard such equipment... First aid providers are obviously at an increased exposure risk... and they should have the responsibility of meeting more comprehensive bloodborne pathogen standards.

VACCINES

There are no vaccines or cures for HCV or HIV. However, there is a vaccine for HBV. Vaccination is your best protection against HBV. The vaccine is given in a series of three doses. Most often these three doses are taken over a six-month time period. ... The vaccine works most effectively when all three doses are taken. If

you decide to get the HBV vaccination, you should check with your doctor and or your employer. The vaccine is safe and effective... and is currently recommended for children as well as adults.

STANDARD PRECAUTIONS

Standard Precautions is a method of infection control... in which all human blood and certain human body fluids are treated as if they are known to be infectious for HIV, HBV, and HCV.... and other bloodborne pathogens. Standard Precautions are to be observed in all situations where there is a potential for contact with blood or other potentially infectious material. Some body fluids may be difficult to differentiate between other types of body fluid. In this case, all body fluids are to be considered potentially infectious. A good rule of thumb to follow is: Always place a barrier between you and any moist or wet substance originating from another person. Hepatitis B or HBV is extremely infectious and is more prevalent than the more publicized HIV or Hepatitis C or HCV. By utilizing Standard Precautions, you can help protect yourself, not only from HBV, but all other bloodborne pathogens.

PERSONAL PROTECTION

We've already discussed the things you can do in your lifestyle outside of work and these behaviors can be an important part of your protection from bloodborne pathogens.

In the workplace, it's important to be familiar with appropriate personal protection. Personal protective equipment or PPE is considered appropriate... if it does not permit blood or other potentially infectious substances and contaminated materials... to pass through or reach your work clothing, street clothing, undergarments, skin, eyes, mouth... or other mucous membranes under normal conditions of use... and for the duration of time the protective equipment is in use. Here are some basic rules to follow:

- Wash your hands immediately or as soon as possible after removal of gloves or other personal protective equipment.
- Always wear personal protective equipment in exposure situations.
- Remove PPE before leaving the work area.
- Keep your work area clean and sanitized. Decontaminate area routinely.
- Handle and dispose of any sharp items that may be contaminated with extreme caution by using mechanical means such as tongs, brush and dustpan or forceps. Never use bare or gloved hands.

Some of the examples of PPE are:

GLOVES should be disposable, single use gloves made of latex or other fluid impervious materials. All cuts or sores on your hands should be covered with a bandage, as additional protection before applying your gloves.

GOGGLES or **PROTECTIVE EYEWEAR** must be worn whenever there is a risk of splashing or vaporizing of contaminated fluids. Bloodborne pathogens can be transmitted through the thin membranes of the eyes, so it is extremely important to protect them.

FACE SHIELDS can be worn in addition to goggles or other protective eyewear to protect the nose and mouth.

APRONS OR JUMPSUITS prevent contaminated infectious material from reaching clothing and undergarments, as well as exposed skin surfaces. The material should be appropriate for the level of exposure.

CPR MASK or other mouth to barrier device is strongly recommended.

CAPS and BOOTIES cover the head and shoes completely. Be sure the booties are tied securely.

Any PPE or normal clothing items that become soiled with infectious material must be removed as soon as possible. Contaminated materials must be handled with caution and placed in an appropriately labeled bag or container... until it is decontaminated or properly disposed.

Along with PPE is the advice that you should never drink, smoke, handle contact lenses... or apply cosmetics or lip balm until you have left the area containing potentially infectious materials. Do not leave the area until you have thoroughly washed your hands.

CONTAINERS, COLOR CODING AND LABELS

For decontamination and disposal methods, your employer will provide specifically labeled and color coded containers, such as:

Biohazard Bags... sharps containers... biohazard laundry bags.

Regulated waste containers are required to be color coded or labeled with the biohazard sign. These color codes and labels are intended to warn the person who handles the container.

Biohazard symbols and labels must be fluorescent orange... or orange-red with letters or symbols in a contrasting color. These symbols must be affixed to any container that is used to store or transport potentially infectious materials.

EXPOSURE

One of the most common definitions of an occupational exposure is... Aa specific eye, mouth, ...other mucous membrane, non-intact skin, or piercing mucous membranes... or the skin barrier... through such events as needle sticks, human bites, cuts and abrasions, contact with blood or other potentially infectious materials... that results from the performance of an employee's duties.@ IN CASE OF AN EXPOSURE, remember these key words: STOP... WASH..... AND REPORT.

STOP whatever you are doing as soon as possible and WASH the exposed area immediately with soap and running water. Cleanse thoroughly by scrubbing vigorously and creating a good lather. Rinse mucous membranes, which is considered the eyes and mouth, with plenty of water. Try to save any contaminated object for testing purposes. REPORT the incident to your employer as promptly as possible. Seek medical help, treatment and counseling. If you have not already been vaccinated against HBV, this treatment can be administered... even after you have been exposed.

EXPOSURE CONTROL

Each organization must have an exposure control plan. All new employees must be informed and trained in these policies and procedures. Workplace exposure control plans are implemented to eliminate or minimize the employee's exposure to bloodborne pathogens.

When cleaning a spill, you must remember to use Standard Precautions. Protect yourself and others from exposures. When cleaning, wear appropriate protective gloves and use an appropriate and approved solution.

An inexpensive, approved solution is 10 percent bleach and water or 1/4 cup of bleach to one gallon of water... freshly made. You should use disposable towels, and if necessary, a disposable brush and tray to clean the spill. Everything must be placed in a biohazard bag and disposed of, according to the workplace

exposure control plan.

During work, you may come into contact with IV needles, Hypodermic needles, razors and other blades, scalpels, scissors, broken glass... and other sharp objects. Use extreme caution when handling, storing.... or using sharp objects. Needles should be disposed by carefully placing them into an appropriate, labeled, puncture proof containers designed for sharps. Never clean up broken sharp materials with your hands. Use a dustpan and brush or tongs. These materials must to go into sharps containers and not placed in biohazard bags.

Contaminated laundry must be placed into leak resistant labeled containers. If plastic biohazard bags are being used, they should be doubled as an extra precaution. Remember to wear the proper personal protection whenever handling soiled/contaminated laundry.

We certainly haven't covered all aspects of bloodborne pathogens, but speak with your employer and contact your local public health unit for more information on bloodborne pathogens. You can protect yourself and reduce your risk of exposure to a bloodborne pathogen by the use of PPE... and practicing Standard Precautions, both at home and at work. Lifestyle behavior modification will also minimize the risk of exposure.