

# OSHA<sup>®</sup> FactSheet

## OSHA's Bloodborne Pathogens Standard

**Bloodborne pathogens are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS. Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses.**

### Protections Provided by OSHA's Bloodborne Pathogens Standard

All of the requirements of OSHA's Bloodborne Pathogens standard can be found in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030. The standard's requirements state what employers must do to protect workers who are occupationally exposed to blood or other potentially infectious materials (OPIM), as defined in the standard. That is, the standard protects workers who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their job duties.

In general, the standard requires employers to:

- **Establish an exposure control plan.** This is a written plan to eliminate or minimize occupational exposures. The employer must prepare an exposure determination that contains a list of job classifications in which all workers have occupational exposure and a list of job classifications in which some workers have occupational exposure, along with a list of the tasks and procedures performed by those workers that result in their exposure.
- **Employers must update the plan annually** to reflect changes in tasks, procedures, and positions that affect occupational exposure, and also technological changes that eliminate or reduce occupational exposure. In addition, employers must annually document in the plan that they have considered and begun using appropriate, commercially-available effective safer medical devices designed to eliminate or minimize occupational exposure. Employers must also document that they have solicited input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.
- **Implement the use of universal precautions** (treating all human blood and OPIM as if known to be infectious for bloodborne pathogens).
- **Identify and use engineering controls.** These are devices that isolate or remove the bloodborne pathogens hazard from the workplace. They include sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps-injury protection and needleless systems.
- **Identify and ensure the use of work practice controls.** These are practices that reduce the possibility of exposure by changing the way a task is performed, such as appropriate practices for handling and disposing of contaminated sharps, handling specimens, handling laundry, and cleaning contaminated surfaces and items.
- **Provide personal protective equipment (PPE), such as gloves, gowns, eye protection, and masks.** Employers must clean, repair, and replace this equipment as needed. Provision, maintenance, repair and replacement are at no cost to the worker.
- **Make available hepatitis B vaccinations to all workers with occupational exposure.** This vaccination must be offered after the worker has received the required bloodborne pathogens training and within 10 days of initial assignment to a job with occupational exposure.
- **Make available post-exposure evaluation and follow-up to any occupationally exposed worker who experiences an exposure incident.** An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM. This evaluation and follow-up must be at no cost to the worker and includes documenting the route(s) of exposure and the circumstances

under which the exposure incident occurred; identifying and testing the source individual for HBV and HIV infectivity, if the source individual consents or the law does not require consent; collecting and testing the exposed worker's blood, if the worker consents; offering post-exposure prophylaxis; offering counseling; and evaluating reported illnesses. The healthcare professional will provide a limited written opinion to the employer and all diagnoses must remain confidential.

- **Use labels and signs to communicate hazards.** Warning labels must be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport, or ship blood or OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry, except as provided in the standard. Facilities may use red bags or red containers instead of labels. In HIV and HBV research laboratories and production facilities, signs must be posted at all access doors when OPIM or infected animals are present in the work area or containment module.
- **Provide information and training to workers.** Employers must ensure that their workers receive regular training that covers all elements of the standard including, but not limited to: information on bloodborne pathogens and diseases, methods used to control occupational

exposure, hepatitis B vaccine, and medical evaluation and post-exposure follow-up procedures. Employers must offer this training on initial assignment, at least annually thereafter, and when new or modified tasks or procedures affect a worker's occupational exposure. Also, HIV and HBV laboratory and production facility workers must receive specialized initial training, in addition to the training provided to all workers with occupational exposure. Workers must have the opportunity to ask the trainer questions. Also, training must be presented at an educational level and in a language that workers understand.

- **Maintain worker medical and training records.** The employer also must maintain a sharps injury log, unless it is exempt under Part 1904 -- Recording and Reporting Occupational Injuries and Illnesses, in Title 29 of the Code of Federal Regulations.

### Additional Information

For more information, go to OSHA's Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at: <https://www.osha.gov/SLTC/bloodbornepathogens/index.html>.

To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office under the "U.S. Department of Labor" listing in your phone book, or call us toll-free at **(800) 321-OSHA (6742)**.

**This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; the teletypewriter (TTY) number is (877) 889-5627.**

**For assistance, contact us. We can help. It's confidential.**



## **BLOODBORNE PATHOGEN STANDARDS**

**OSHA (Occupational Safety & Health Administration) is a federal agency which has devised standards to safeguard and protect workers against health hazards that can be acquired from exposure to blood and other potentially infectious materials. Their goal is to keep the risk factors down which helps reduce the chances of workers contracting any of the diseases from the bloodborne pathogens.**

**What are Bloodborne Pathogens? They are viruses, bacteria, and other microorganisms that are carried in the blood stream and can cause disease. For our school setting, the approach of universal precautions will be used. This means that all human and certain human body fluids should be treated as if they were infected with bloodborne pathogens. Examples of moist body substances to be considered potentially infectious are: urine, feces, blood, semen, vaginal secretions, vomitus, and saliva.**

**Who is at risk in our school setting? Employees with these job classifications are at risk for exposure: Administrative Personnel, Teachers, Nurse/Health Aide in the Clinic, Counselors, Secretaries, Coaches, Custodians, Bus Drivers, Cafeteria Personnel, and any other employees involved with the students.**

**What are some of the risks you as an employee might come in contact with? Coaches/PE Teachers may have to care for sports injuries. School Nurses/Health Aides deal with illness and injury care. Secretaries may have to perform first aid. Custodians may be involved with cleaning up bloody waste. Other School Personnel may be involved in breaking up fights, nose bleeds, rendering first aid that may involve blood or other bodily fluids.**

**The most commonly encountered Bloodborne Pathogens in a school setting are HBV (Hepatitis B), HCV (Hepatitis C), and HIV (Human Immunodeficiency Virus). Currently, there are no vaccinations against Hepatitis C or HIV, only Hepatitis B.**

**Hepatitis B (Hepatitis meaning “inflammation of the liver”) virus is the most infectious bloodborne hazard because it can survive outside the body for up to a week. Symptoms occur two-six months after exposure. Symptoms can include: flu-like symptoms, pain on the right side of the abdomen, a condition in which the skin and the whites of the eyes turn yellow in color (jaundice), dark urine, and pale stools. Some people have no symptoms at all. Having Hepatitis B can lead to acute hepatitis, chronic active hepatitis, cirrhosis, liver cancer, liver failure, and death. As was mentioned above, there is a vaccination to prevent Hepatitis B from occurring. It can also be given immediately after exposure to help prevent the disease. There are minimal side effects to the vaccine and current vaccines are recombinant**

proteins of the surface antigen only so there is no infectious potential. The vaccine involves three separate injections over a seven month period.

Currently, there is no treatment or vaccine for Hepatitis C. This virus does not survive well outside the body. The incubation period once you have been exposed is two-six months. The symptoms are similar to Hepatitis B. They include: pain on the right side of the abdomen, jaundice, fatigue, appetite loss, nausea, dark-colored urine, and stools become pale in color. About 80% of those infected with the virus have no symptoms. Long-term effects include cirrhosis, liver cancer, chronic liver disease and death.

The HIV virus attacks the immune system and can cause the disease known as AIDS. Currently, there is no cure for this but they do have medications to help with the effects. It eventually results in death. The HIV virus is fragile and does not survive well in the environment. The symptoms of this virus are: flu-like symptoms, night sweats, fever, weight loss, fatigue, and swollen glands. A person may also develop AIDS. Flu-like symptoms may occur within one-two months after exposure. If you are exposed to HIV, you should be tested in six weeks to twelve months so treatment can be started. It is possible for an individual to be infected with the HIV virus and carry it without developing symptoms for ten years or more.

What is the mode of transmission for these diseases? Blood can enter your body through open cuts, wounds, or skin abrasions. Blood can also enter by having mucous membranes (eyes, nose, or oral area) splashed with it. An exposure incident must include: Blood and/or other potentially infected material AND an entrance into the body. A good rule to follow is: "If it's wet and it's not yours, don't touch it."

What are work practice controls? Work practice controls are methods that reduce the chance of an exposure to bloodborne pathogens. These would include the use of universal precautions, hand washing, engineering controls (ex. - sharp's container), and if further risk is involved, the use of personal protective equipment (gloves, gowns, eye protection, and anything to protect your street clothes). The practice of universal precautions is a control to be used in our school. It states that you must treat all bodily fluids as potentially infectious materials. Hand washing is the single most important technique for preventing the spread of infectious diseases. Hands need to be washed after gloves are removed and after exposure to blood and other potentially infectious materials. You should use soap and water and always use soap and water if your hands are visibly soiled. If no washing facility is available, an antiseptic hand cleaner such as an alcohol-based hand sanitizer should be used. As soon as possible, your hands should be washed with soap and running water. Each classroom is presently equipped with a hand sanitizer dispenser and can be used as necessary. Each room also has a zip-lock baggie marked biohazard. It contains band aids, gauze, Kleenex, a biohazard bag, and gloves. Our clinic has masks, gloves, a CPR mouth shield, a sharp's container, and a large waste basket with a biohazard bag in it. There is an eye wash in the Chemistry Lab Room.

**What should be done to clean up and decontaminate after exposure to blood or other potentially infectious materials? You should look for cleaners that are “tuberculocidal agents that kill the hepatitis B virus.” You can also use household chlorine bleach. The solution must be made fresh every twenty-four hours and must be a 10% bleach solution. For the cleaning process, you should wear gloves. First you absorb the spill (paper towels can be used). Then the 10% bleach solution is applied to the site and is left on the site for 15 minutes. In our school, the custodial crew will handle the cleaning up after notification.**

**What do you do if an exposure occurs? The bloodborne pathogen standards provides for medical follow-up for workers who are involved in an exposure incident at no charge. If an exposure to blood or other potentially infectious material occurs, immediately wash the exposed area with soap and water. Splashes to the nose, mouth or skin should be flushed with water. Eyes should be irrigated with water or saline. Immediately after this, report the incident to your administrator. This is important for rapid intervention with helping Hepatitis B not to develop or HIV infection to be kept in check. The incidence being reported can also help prevent further similar occurrences from happening. When you report an incidence, if possible, the source individual can be tested if agreed on and you can be notified of the results. The first step taken in treatment would be to have your blood drawn to be tested. You have a choice whether or not to be tested in this matter. Your blood sample must be maintained for 90 days in case you change your mind about either of the tests. Counseling will be provided by the health care provider. If you are at high risk for HBV, you can be given the vaccine. The health care provider will provide a written report to your administrator and include recommendations for the individual of concern and results of their evaluation. The report will include any conditions resulting from the exposure and if further treatment or evaluation is required. Your records are kept confidential and can only be seen by anyone with written consent from the individual involved in the exposure. Records are maintained for the duration of your employment at this facility and for 30 years beyond this.**