

Guide to Bloodborne Pathogens (BBP)

Bloodborne pathogens consist of several different infectious agents that can be transmitted through exposure to blood or other infectious body fluids from an infected individual to an uninfected person when the infectious agent enters through an opening in the skin or through mucous membranes.

If an exposure or even a questionable exposure occurs, your health care provider should evaluate the individual exposed to determine if there is a true or significant exposure.

HIV vs. Hepatitis

When discussing bloodborne pathogens, HIV is usually the first to come up. However, the hepatitis virus is more easily transmitted and can result in significant disease, disability and death. In the United States, the two strains of most concern are Hepatitis B and Hepatitis C. Hepatitis B is completely preventable due to a very effective vaccine, but no vaccine exists for Hepatitis C. Most individuals who have Hepatitis C do not know they have it. If used properly, universal precautions and protective equipment, such as eye shields, gowns and gloves, can prevent exposure to all of these infectious agents.

Hepatitis B Vaccine

The Hepatitis B vaccine must be offered to employees that have potential exposure to bloodborne pathogens. The vaccine can be declined by an employee; however, this option should be strongly discouraged given the protection it provides. If declined, the employee has the option of being vaccinated if they change their mind. They must be offered the vaccine at yearly required training. The vaccine is a series of three doses over 6 months. A couple months following the last vaccine in the series, OSHA requires that a blood titer be drawn to confirm immunity. The cost of all training and vaccination is the responsibility of the employer.

Risk for Exposure

Identifying employees at risk of exposure to blood or certain bodily fluids is easy in some settings, such as health care workers who draw blood, change dressings, start IVs and work in operating rooms. We must also think of employees who clean rooms, do laundry or perform a variety of other tasks. In general industry, there may be first response or medical response teams, or supervisors designated as first aid care givers who fit under the guidelines.

Exposure Control Plan

All employers who identify the potential for exposure to blood or certain bodily fluids should have an exposure control plan as outlined in OSHA CFR 1910.1030, the bloodborne pathogen standard. A model exposure control plan can be found here: <https://www.osha.gov/Publications/osha3186.pdf>. The plan can be tailored to your individual company needs. Requirements of the standard include yearly training, offering Hepatitis B vaccinations and defining how and where you will have an employee evaluated and treated if an exposure occurs.

Your United Heartland Loss Control representative can also provide a sample Bloodborne Pathogens Program that complies with the OSHA standard and can be adapted for your individual workplace.

When an Exposure Occurs

If an exposure or even a questionable exposure occurs, your health care provider should evaluate the individual exposed to determine if there is a true or significant exposure, what testing should be done and provide any necessary treatment. Depending on the medical evaluation, some exposed individuals should receive almost immediate treatment.

Under the CDC guidelines, the source individual needs to be identified if possible and the treating health professional should evaluate and test the source for infectious disease, as this evaluation will guide treatment. Treatment of the exposed person depends greatly on the source testing, so doing so can prevent unnecessary treatment that is not only time-consuming, anxiety-provoking and expensive but the treatment itself carries risk and significant adverse side effects. Baseline testing for HIV and the hepatitis viruses is important to determine if there is pre-existing disease and protects the exposed from unnecessary treatment and the employer from claims of disease that was preexisting.

Reducing Risk of Illness from Exposure

To reduce the risk of illness associated with any exposure, follow the steps listed below. Discuss this entire procedure with staff before an incident occurs, so they are aware of the process. Knowing what to do helps to ease the situation and provide some control over what seems to be an uncontrollable situation.

- Reassure employee: Explain that accidents happen and there are steps they need to follow to ensure they are reducing any possible risks. Remain calm and confident in what you tell them to do. If the staff person is extremely upset or hysterical, offer to meet them to get them to the medical facility. Also, consider calling the clinic ahead of time, so they know the employee is coming. This will also provide some reassurance to the employee when they get there. Continue to redirect the discussion back to the steps you need to follow. Their mind may be racing with all the “what ifs”. Keep them focused on what you have control over, which is getting them to the medical facility to receive the best care. Remember, they are looking to you for guidance. The medical facility will provide them with counseling and further reassurance.
- Provide emergency first aid
 - Puncture/open wound exposure: Wash affected area immediately and thoroughly with water and antibacterial soap. Apply Band-Aid or bandages. If only hand sanitizer is available, use this until they get to a medical facility.
 - Eye splash: Flush eyes thoroughly for 15 minutes. Remove contact lenses and do not reinsert until the health care provider gives approval. Disposable lenses should be discarded.
 - Other mucous membrane splash: Flush affected area for 15 minutes.
 - Contact with intact skin: Wash thoroughly with soap and water.
- Direct them to designated medical facility for immediate follow-up: This should be done within two hours of the incident or immediately if emergency first aid cannot be provided. At facility, the employee will:
 - Be asked to explain the incident and will need to share their Hepatitis B status
 - Have a blood sample taken and provided counseling to include discussion of post-exposure prophylaxis
- The patient whose blood the employee was exposed to should be contacted to discuss receiving a blood sample.
- Fill out an Accident and Injury Report Form for further follow-up internally. Plan on following up with them on this step as they may forget to do so.

Bloodborne Pathogen Training Resources

Training is an important part of any safety program – our staff can help by reviewing your training needs and offering consultation to improve its effectiveness. Contact your UH loss control representative to discuss further

Our safety evaluations, reports and recommendations are made solely to assist your organization in reducing hazards and the potential of hazards and accidents. These recommendations were developed from conditions observed and information provided at the time of our visit. They do not attempt to identify every possible loss potential, hazard or risk, nor do they guarantee that workplace accidents will be prevented. These safety evaluations, reports and recommendations are not a substitute for ongoing, well-researched internal safety and risk management programs. This report does not warrant that the property inspected and its operations are compliant with any law, rule or regulation.