



Workplace Safety

## Handle Bloodborne Pathogens with Care

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### What You Need to Know

Bloodborne pathogens are infectious microorganisms carried in the blood, including HIV and hepatitis B and C, that can cause serious, long-term illnesses. They are spread through exposure to blood or other potentially infectious materials

The OSHA standard for bloodborne pathogens applies to manufacturing facilities or any workplace where employees might have job-related contact with blood or other potentially infectious materials. The OSHA standard requires workplaces to put an exposure control plan into place, defining roles where exposure might take place and steps that will be taken after an exposure incident.

Workers can be protected from exposure to bloodborne pathogens using universal precautions, engineering and work practice controls, personal protective equipment (PPE), and housekeeping.

You might think accidental exposure to bloodborne pathogens—infectious microorganisms—is only a risk for healthcare workers. But workers in a manufacturing environment may be inadvertently exposed to pathogens if they are providing emergency medical care after an industrial accident, for example, or cleaning up contaminated materials or surfaces.

Helping a co-worker in your plant with a minor cut could lead to a bloodborne pathogen exposure. Here's a guide to what you need to know.

### What Are Bloodborne Pathogens and How Are They Spread?

According to the *Centers for Disease Control and Prevention*, bloodborne pathogens are infectious microorganisms that are carried in the blood. The pathogens of most concern include human immunodeficiency virus (HIV), hepatitis B virus and hepatitis C virus. Here is how they can impact the human body:

- HIV weakens the human immune system and makes it hard for the body to fight off infections. It cannot be cured, but it can be controlled with treatment.
- Hepatitis B is a liver infection caused by the hepatitis B virus. It can be a short-term or a long-term, chronic illness. A vaccine can protect against it.

- Hepatitis C is a liver infection caused by the hepatitis C virus. Like hepatitis B, it can be a short-term illness or a long-term, chronic infection. Unlike hepatitis B, though, there is no vaccine to prevent its spread.

Exposure to these pathogens can take place not just through blood, but also through other body fluids, via mucous membranes and skin exposures, says the CDC. Hepatitis B and HIV are spread mainly through sexual contact, shared needle use or through breastfeeding; they cannot be spread by sharing cups, toilets or drinking fountains, or through sneezing, coughing or vomiting. According to the CDC, hepatitis C is spread mostly through the shared use of needles.

In a manufacturing workplace, exposure might occur if a worker is stuck with a contaminated needle or other contaminated sharp object, or a worker with broken skin or wounds comes into contact with bodily fluids from an infected person.

*Confused by first-aid kits? Read “Class A vs. Class First-Aid Kits: Which Is Right for You?”*

## Bloodborne Pathogen Exposure and HIPAA

If an employee is exposed to potentially infectious materials such as blood at work—by helping a co-worker who was injured, for example—employers have an obligation to follow up on the incident. According to the ***Occupational Safety and Health Administration***, the blood of the source individual must be tested “as soon as feasible, after consent is obtained,” to determine if it’s infected with HIV or hepatitis.

“The information on the source individual’s HIV and HBV testing must be provided to the evaluating healthcare professional,” says OSHA. “Also, the results of the testing must be provided to the exposed employee. The exposed employee must be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.”

Companies may worry that this disclosure violates rules set for by the Health Insurance Portability and Accountability Act (HIPAA). However, write infectious control consultant Katherine West and attorney James R. Cross in the ***Journal of Emergency Medical Services***, HIPAA explicitly makes an exception when another person may have been exposed to a bloodborne pathogen or other communicable disease.

“Such disclosures are no different than disclosures made to state public health officials pursuant to state notifiable disease laws” and do not violate HIPAA standards, write West and Cross.

## Does OSHA’s Bloodborne Pathogen Standard Apply to Manufacturing Facilities?

“Many industrial sites wrongly think that the Bloodborne Pathogens Standard does not apply to their facility because they are not in a healthcare setting,” says ***J. J. Keller & Associates***. “But non-healthcare employers can easily wind up being covered by this standard. How? The answer is found in two important words—occupational exposure.”

The Occupational Safety and Health Administration's bloodborne pathogen standard (**29 CFR 1910.1030**) applies to employees who have occupational exposure—who are reasonably anticipated to have job-related contact with blood or other potentially infectious materials (OPIMs).

In a manufacturing setting, this could include housekeeping personnel or employees who are trained and designated to provide first aid as part of their job duties, says J. J. Keller & Associates, as well as environmental health and safety specialists, industrial firefighters and fire brigades, laundry and maintenance workers, plumbers and pipefitters, and solid waste handling service operators.

## What Does OSHA's Bloodborne Pathogen Standard Require?

If a workplace has an employee who is reasonably anticipated to be exposed to bloodborne pathogens—either through exposure to blood or to OPIMs—while carrying out job duties, the company needs to develop an exposure control plan.

"The most common citation written under the Bloodborne Pathogen Standard is for an inadequate written exposure control plan," says J. J. Keller & Associates. "The employees may all be trained, the proper personal protective equipment available, and the employees fully protected, but a citation may still be issued if the written plan does not meet the 'letter of the law.'"

According to **EMC Insurance**, this plan should:

- Identify job classifications, procedures and tasks where occupational exposure to bloodborne pathogens might take place
- Describe how various methods of exposure control will be implemented
- Describe the availability of the hepatitis B vaccine for employees at risk for occupational exposure
- Describe the procedure for evaluating and following up on exposure incidents
- Describe how the hazards are communicated to employees and how employees are trained to avoid bloodborne pathogens

The standard also requires employers to update the plan annually. A sample plan is available on **OSHA's website**.

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J. J. Keller & Associates

## What Are Methods of Protecting Workers from Bloodborne Pathogens?

For OSHA, "methods of compliance" include universal precautions, engineering and work practice controls, personal protective equipment, and housekeeping.

**Universal precautions:** Using universal precautions means treating all bodily fluids as if they are infected, avoiding direct contact and using PPE. According to **Optimum Safety Management**, it also means encouraging injured employees to bandage themselves when possible, disposing of gloves and other contaminated materials in biohazard bags or containers, and washing hands immediately after handling potentially contaminated materials, even if gloves were worn.

**Engineering controls:** In a manufacturing setting, where exposure to bodily fluids is not common, engineering controls may be limited to hand-washing, says J. J. Keller & Associates.

**Work practice controls:** Work practice controls could include limiting activities like eating and drinking in areas where exposure is likely to occur, says J. J. Keller, encouraging hand-washing, and picking up broken glass with tools such as dustpans or tongs.

**Personal protective equipment:** "If bloodborne pathogen exposure cannot be eliminated with engineering controls or if those controls are infeasible, use of PPE is the next best precaution for protecting the employee from exposure," says J. J. Keller, noting that employers are responsible for providing **appropriate PPE**, making sure it is in good repair or replaced as needed, and disposed of safely.

Appropriate PPE may include:

- Protective clothing. "Paper garments are disposable and should protect the clothing of cleanup workers," notes J. J. Keller.
- **Eye and face protection.** "Masks, in combination with eye protection devices ... should be worn whenever splashes, spray, spatter or droplets of blood or OPIM [other potentially infected materials] may be generated," says EMC Insurance.
- **Gloves.** "Disposable gloves should be replaced as soon as practical after they have become contaminated, torn, punctured, or their ability to function as a barrier is compromised," says EMC. J. J. Keller notes that while latex gloves are often preferred by medical professionals, they are easily torn. "Heavy duty latex, rubber, polyurethane, and vinyl gloves are often more appropriate for industrial use," the company notes. "These heavy duty gloves will withstand industrial use and can be decontaminated for reuse if necessary."

**Housekeeping:** Any contaminated equipment or work surface must be cleaned after an incident, says J. J. Keller. "Small amounts of blood or OPIM from an injured employee may be cleaned up by that employee or someone trained or designated for the job," says the company.

OSHA recommends **disinfecting** equipment and work surfaces with a solution of one part household bleach to 10 parts water, or using FDA-approved high-level disinfectants or EPA-registered disinfectants that are labeled as effective against both HIV and hepatitis.

*Do you have a bloodborne pathogen exposure control plan in place?*

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