

Bloodborne Pathogens



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Introduction

- Approximately 5.6 million workers in health care and other facilities are at risk of exposure to bloodborne pathogens such as human immunodeficiency virus (HIV – the virus that causes AIDS), the hepatitis B virus (HBV), and the hepatitis C virus (HCV)
- OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure

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Who is covered by the standard?

- All employees who could be "reasonably anticipated" as the result of performing their job duties to face contact with blood and other potentially infectious materials
- "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure

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Some Workers Who are at Risk

- Physicians, nurses and emergency room personnel
- Orderlies, housekeeping personnel, and laundry workers
- Dentists and other dental workers
- Laboratory and blood bank technologists and technicians
- Medical examiners
- Morticians
- Law enforcement personnel
- Firefighters
- Paramedics and emergency medical technicians
- Anyone providing first-response medical care
- Medical waste treatment employees
- Home healthcare workers

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How does exposure occur?

- Most common: needlesticks
- Cuts from other contaminated sharps (scalpels, broken glass, etc.)
- Contact of mucous membranes (for example, the eye, nose, mouth) or broken (cut or abraded) skin with contaminated blood

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Exposure Control Plan

- Identifies jobs and tasks where occupational exposure to blood or other potentially infectious material occurs
- Describes how the employer will:
 - ⊗ Use engineering and work practice controls
 - ⊗ Ensure use of personal protective equipment
 - ⊗ Provide training
 - ⊗ Provide medical surveillance
 - ⊗ Provide hepatitis B vaccinations
 - ⊗ Use signs and labels

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Exposure Control Plan

- Written plan required
- Plan must be reviewed at least annually to reflect changes in:
 - tasks, procedures, or assignments which affect exposure, and
 - technology that will eliminate or reduce exposure
- Annual review must document employer's consideration and implementation of safer medical devices
- Must solicit input from potentially exposed employees in the identification, evaluation and selection of engineering and work practice controls
- Plan must be accessible to employees

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Universal Precautions

- Treat all human blood and certain body fluids as if they are infectious
- Must be observed in all situations where there is a potential for contact with blood or other potentially infectious materials

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Engineering and Work Practice Controls

- These are the primary methods used to control the transmission of HBV and HIV
- When occupational exposure remains after engineering and work practice controls are put in place, personal protective equipment (PPE) must be used

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Engineering Controls

These controls reduce employee exposure by either removing the hazard or isolating the worker.

Examples:

- Sharps disposal containers
- Self-sheathing needles
- Safer medical devices
- ⊗ Needleless systems
- ⊗ Sharps with engineered sharps injury protections



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Safer Medical Devices

- *Needless Systems:* a device that does not use needles for the collection or withdrawal of body fluids, or for the administration of medication or fluids
- *Sharps with Engineered Sharps Injury Protections:* a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident

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Work Practice Controls

These controls reduce the likelihood of exposure by altering how a task is performed. Examples:

- Wash hands after removing gloves and as soon as possible after exposure
- Do not bend or break sharps
- No food or smoking in work areas



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Personal Protective Equipment

- Specialized clothing or equipment worn by an employee for protection against infectious materials
- Must be properly cleaned, laundered, repaired, and disposed of at no cost to employees
- Must be removed when leaving area or upon contamination



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Examples of PPE

- Gloves
- Gowns
- Face shields
- Eye protection
- Mouthpieces and resuscitation devices



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Housekeeping

Must develop a written schedule for cleaning and decontamination at the work site based on the:

- Location within the facility
- Type of surface to be cleaned
- Type of soil present
- Tasks or procedures being performed

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Housekeeping (cont'd)

Work surfaces must be decontaminated with an appropriate disinfectant:

- ✦ After completion of procedures,
- ✦ When surfaces are contaminated, and
- ✦ At the end of the work shift



Regulated Waste

Must be placed in closeable, leak-proof containers built to contain all contents during handling, storing, transporting or shipping and be appropriately labeled or color-coded.



Laundry

- ✦ Handle contaminated laundry as little as possible and use PPE
- ✦ Must be bagged or containerized at location where used
- ✦ No sorting or rinsing at location where used
- ✦ Must be placed and transported in labeled or color-coded containers



Hepatitis B Vaccination Requirements

- Must make available, free of charge at a reasonable time and place, to all employees at risk of exposure within 10 working days of initial assignment unless:
 - employee has had the vaccination
 - antibody testing reveals immunity
- The vaccination must be performed by a licensed healthcare professional



Hepatitis B Vaccination Requirements (cont'd)

- Must be provided even if employee initially declines but later decides to accept the vaccination
- Employees who decline the vaccination must sign a declination form
- Employees are not required to participate in antibody prescreening program to receive vaccination series
- Vaccination booster doses must be provided if recommended by the U.S. Public Health Service

What to do if an exposure occurs?

- Wash exposed area with soap and water
- Flush splashes to nose, mouth, or skin with water
- Irrigate eyes with water or saline
- Report the exposure
- Direct the worker to a healthcare professional

Post-Exposure Follow-Up

- Document routes of exposure and how exposure occurred
- Record injuries from contaminated sharps in a sharps injury log, if required
- Obtain consent from the source individual and the exposed employee and test blood as soon as possible after the exposure incident
- Provide risk counseling and offer post-exposure protective treatment for disease when medically indicated in accordance with current U.S. Public Health Service guidelines
- Provide written opinion of findings to employer and copy to employee within 15 days of the evaluation

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Biohazard Warning Labels

- Warning labels required on:
 - Containers of regulated waste
 - Refrigerators and freezers containing blood and other potentially infectious materials
 - Other containers used to store, transport, or ship blood or other potentially infectious materials
- Red bags or containers may be substituted for labels



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Training Requirements

- Provide at no cost to employees during working hours
- Provide at time of initial assignment to a job with occupational exposure and at least annually thereafter
- Additional training needed when existing tasks are modified or new tasks are required which affect the worker's occupational exposure
- Maintain training records for 3 years



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Training Elements

- ✓ Copy of the standard
- ✓ Modes of transmission
- ✓ Site-specific exposure control plan
- ✓ Hazard recognition
- ✓ Use of engineering controls, work practices and PPE
- ✓ Live question and answer sessions

Medical Recordkeeping Requirements

- ✓ Employee's name and social security number
- ✓ Employee's hepatitis B vaccination status
- ✓ Results of examinations, medical testing, and post-exposure evaluation and follow-up procedures
- ✓ Health care professional's written opinion
- ✓ Information provided to the health care professional
- ✓ Employee medical records must be kept confidential and not disclosed or reported without the employee's written consent (unless required by law)
- ✓ Medical records must be maintained for duration of employment plus 30 years according to OSHA's rule governing access to employee exposure and medical records

Sharps Injury Log

- ✓ Employers must maintain a sharps injury log for the recording of injuries from contaminated sharps
- ✓ The log must be maintained in a way that ensures employee privacy and must contain, at a minimum:
 - ⊗ Type and brand of device involved in the incident
 - ⊗ Location of the incident
 - ⊗ Description of the incident

Summary

- ✦ OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
- ✦ Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting AIDS, Hepatitis C, or other bloodborne diseases
