



Bloodborne Pathogens



Presented by SMCM Environmental Health &
Safety Office



Purpose:



- To provide safe working conditions that protect employees from being unnecessarily exposed to health hazards





Standards that apply:



- OSHA General Industry Standard
- 29 CFR 1910.1030: Occupational Exposure to Bloodborne Pathogens



Training Shall Contain:



- Engineering Controls
- Administrative Controls
- PPE
- Post Exposure Evaluations
- Record Keeping



Session Objectives



- Identify Bloodborne Pathogens (BBPs)
- Understand how diseases are transmitted
- Determine your risk of exposure
- Protect yourself from exposure through prevention
- Respond appropriately if exposed
- Understand your right to medical evaluations



Methods of Compliance

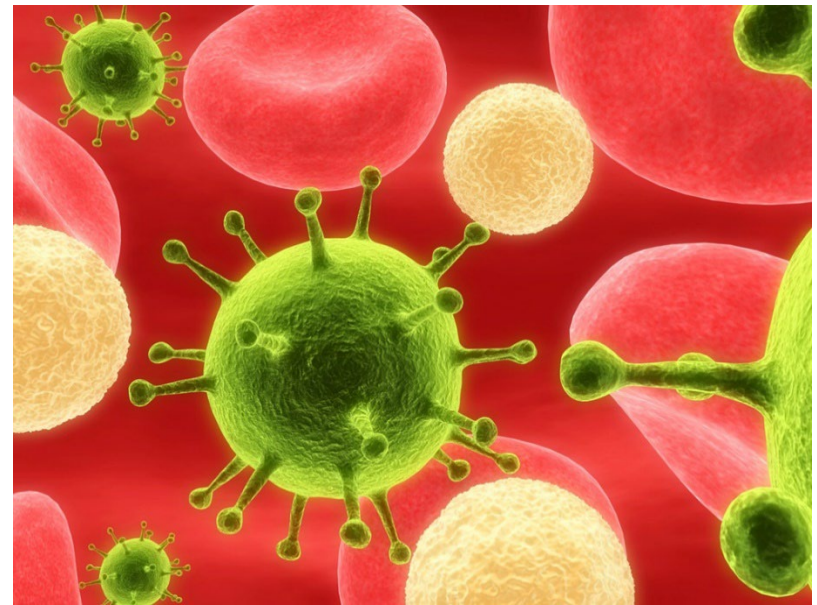


- Universal Precautions
- Engineering and Work Practice Controls
- Personal Protective Equipment
- Housekeeping



What are Bloodborne Pathogens?

- Bloodborne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people.
- Primary workplace pathogens
 - Human immunodeficiency virus (HIV)
 - Hepatitis B Virus (HBV)
 - Hepatitis C Virus (HCV)
- Airborne Pathogens
 - Tuberculosis





Human Immunodeficiency Virus (HIV)



- AIDS, or acquired immune deficiency syndrome, is caused by a virus called the human immunodeficiency virus, or HIV.
- It may be many years before AIDS actually develops.
- HIV attacks the body's immune system, weakening it so that it cannot fight other deadly diseases. AIDS is a fatal disease, and while treatment for it is improving, there is no known cure.



HIV and Direct Contact



- The HIV Virus is very fragile and will not survive very long outside of the human body. It is primarily of concern to employees providing first aid or medical care in situations involving fresh blood or other potentially infectious materials.





Hepatitis Symptoms



- Hepatitis
 - Fatigue
 - Fever
 - Loss of Appetite
 - Jaundice (yellow skin)
 - Urine turns dark
 - Abdominal pain





Hepatitis B Virus (HBV)



- 1.4 million people infected
- Symptoms
 - Jaundice, fatigue, and abdominal pain
 - No appetite, nausea, and vomiting
- Vaccine is available
- HBV can survive outside the body



Hepatitis C Virus (HCV)



- HCV is the most common chronic bloodborne infection- 3.2 million infected
- Symptoms can take years to manifest
 - Flu-like symptoms, jaundice, dark urine, and fatigue
 - Loss of appetite, nausea, and vomiting, and abdominal pain
- Treatment is marginally effective



Tuberculosis (TB)



- In 2022, the CDC reported there were 8,300 people in the US with TB
- Many people with a TB infection are not sick or contagious (their body is effectively fighting the bacteria)
- Those with **TB Disease** are contagious
- It affects the lungs but can also affect the brain, spine and kidneys



Transmission of Pathogens

- Contaminated sharp objects or needles
- Broken skin, including rashes
- Mucous membranes
 - Eyes
 - Mouth
 - Nose





Routes of Exposure



- Contact with bleeding co-worker
- Contact with blood while administering first aid
- Touching a contaminated surface
- Assigned to clean up blood
- Contact with contaminated products or equipment in restrooms
- Using a tool covered in dried blood



Bloodborne Diseases- Any Questions?



- Do you understand:
 - The definition of bloodborne pathogens?
 - Transmission of bloodborne pathogens?
 - How you could be exposed?



What is the ECP?



- Identifies jobs and tasks for potential exposure
- Describes engineering and safe work practices
- Outlines training requirements
- Identifies the placement and use of signs and labels
- Explains how to decontaminate equipment and work surfaces



ECP (cont.)



- Describes how biohazardous waste is handled
- Explains the record keeping requirements
- Changes as practices and technology change
- The Exposure Control Plan can be found on the SMCM website here:

<https://s7445.pcdn.co/facilities/wp-content/uploads/sites/69/2024/06/Exposure-Control-Plan.pdf>



Take Universal Precautions

- Treat all blood and bodily fluids as if infected
- Use barrier protection to avoid contact with infected bodily fluids
- Immediately clean up and decontaminate surfaces and equipment





Use Personal Protective Equipment

- Barrier protection prevents exposure
- Use gloves when applying bandages or cleaning up
- Eyewear or masks protect against splashes
- Protective clothing or aprons protect against spurting blood





PPE (cont.)

- Use a mask for nose and mouth protection
- Use a CPR mask to protect against vomit during CPR
- Be prepared to use impromptu barriers such as a garbage bag, plastic, paper, or your shirt





Avoid Puncture Wounds

- Use tongs, forceps, or similar tools to pick up potentially contaminated items





Protect Yourself!



- Review the ECP and OSHA regulation
- Take universal precautions
- Use personal protective equipment
- Follow safe work practices
- Get the hepatitis B vaccine
- Follow decontamination and disposal procedures





Is This a Safe Work Practice? Yes or No?



- Removing contaminated PPE and clothing before leaving the work area
- Seeking immediate medical attention
- Eating, drinking, smoking, or applying cosmetics in any work areas where there is the possibility of exposure to blood
- Wearing double gloves to reduce contamination risk



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ECP, Precautions, and Safe Practices—Any questions?

- ECP?
- Universal Precautions or PPE?
- Safe work practices?

