

Bloodborne Pathogens



Why are we here?

- To educate employees on the risks involved with Bloodborne Pathogen exposures and how employees can protect themselves against Bloodborne Pathogen exposures
 - Certain employees may, in rare instances, be exposed to Bloodborne Pathogens
 - Effects of any exposure can be limited by knowledge and practices

Employer Responsibilities

- Develop and implement an Exposure Control Plan – Bloodborne Pathogens Plan
 - Identify employees who may be reasonably expected to come into contact with blood or other bodily fluids
 - Designated employees offered Hepatitis B Vaccination
 - Develop and mandate universal precautions
 - Process to follow when an “exposure event” occurs
- PPE and materials acquisition, distribution and maintenance
- Training

Employee Responsibilities

- Understand potential occupational exposures and routes of exposures.
- Conduct all tasks in accordance with practices described in the safe operating procedures.
- Report any exposures to your supervisor immediately and undertake the necessary medical review and treatment.
- Complete required BBP training
- Practice good hygiene

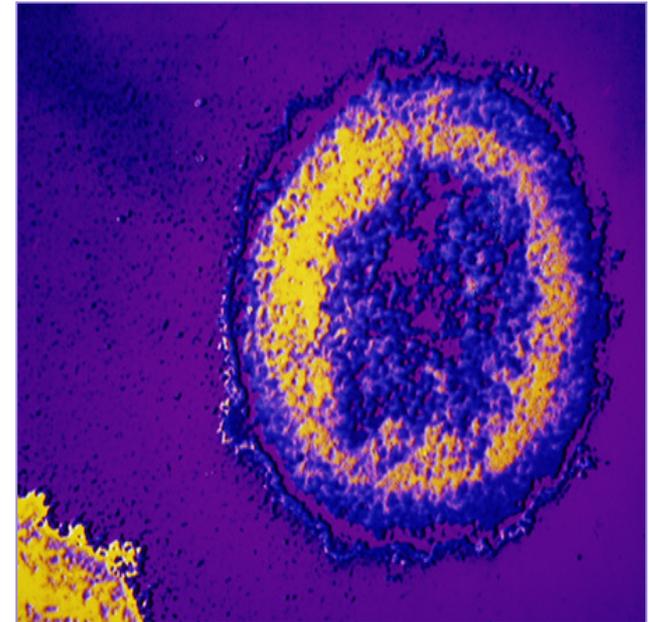
What is a Bloodborne Pathogen?



- BBPs: Micro-organisms that are carried in the blood and body fluids, such as viruses or bacteria, that can cause disease in humans

Common BBP Diseases

- **Hepatitis A (HAV)**
- **Hepatitis B (HBV)**
- **Hepatitis C (HCV)**
- **Human Immunodeficiency Virus (HIV)**
- **Malaria**
- **Brucellosis**
- **Syphilis**



What is Hepatitis?

- Hepatitis is a disease that causes inflammation of the liver. Symptoms include: nausea, loss of appetite, abdominal pain, fatigue, fever, and yellowing of the skin and eyes (jaundice), may occur.
- **Hepatitis** may be Acute or Chronic. The acute form can subside after a few months and rarely causes liver failure. The chronic form can result in long lasting liver disease.
- There are several forms of hepatitis: A, B & C
- A blood test is usually needed to determine if a person has hepatitis.

Hepatitis A (HAV)

- HAV is transmitted through human waste and has reached epidemic proportions in some third world countries.
- HAV is the least destructive form of the Hepatitis virus and rarely leads to permanent liver damage.
- Symptoms are normally gone on their own within a few weeks and once you have recovered from HAV you become immune and will never get HAV again.

Hepatitis B (HBV)

- 1 – 1.25 million Americans are chronically infected
- Almost 1 in every 50 people living in the United States will become infected with HBV
- HBV is a more serious infection. It may lead to a condition called **cirrhosis** (permanent scarring of the liver) or liver cancer, both of which cause severe illness and even death.
- Symptoms can occur 1-9 months after exposure.
- Vaccination available since 1982

Hepatitis B Vaccination

- Offered to all potentially exposed employees who can reasonably anticipate facing contact with potentially infectious materials
- Series of 3 shots over approximately 1 year
 - The series of shots gradually builds up the body's immunity to HBV
- Vaccination can also be administered immediately after an exposure event



Hepatitis C (HCV)

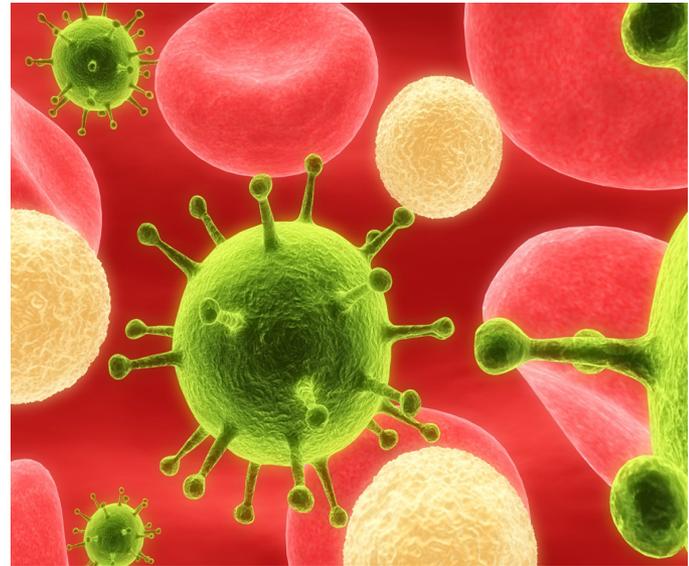
- HCV is the most common bloodborne infection in the United States. An estimated 4.1 million Americans are currently infected with the virus.
- HCV is the most serious form of Hepatitis, it can lead to permanent liver damage as well as cirrhosis, liver cancer, liver failure, chronic liver disease and death.
- Every year, thousands of people in the United States die from the virus. Although treatments for hepatitis C are becoming more effective, a cure cannot be guaranteed.

Human Immunodeficiency Virus (HIV)

- HIV invades and destroys white blood cells and depletes the immune system. If too many cells are destroyed, the body can no longer defend itself against infection.
- HIV is the virus that leads to AIDS
- The HIV virus is very fragile and will not survive very long outside of the human body.
- No threat of contracting HIV through casual contact (Touching and hugging, etc.)

Potentially Infectious Bodily Fluids

- Blood
- Saliva
- Vomit
- Urine
- Semen or vaginal secretion
- Any other bodily fluids



Transmission Potential

Unbroken skin provides an impervious barrier against BBPs. However, blood can enter the system through:

- Open sores
- Cuts
- Abrasions
- Acne
- Any sort of damaged or broken skin such as sunburns or blisters

Transmission Potential

- Contact with another person's blood or bodily fluid that may contain blood with:
 - ▣ Mucous membranes: eyes, mouth, nose
 - ▣ Non-intact (broken) skin
- Contaminated sharp objects/needles which penetrate the skin



Potential At-Work Exposure

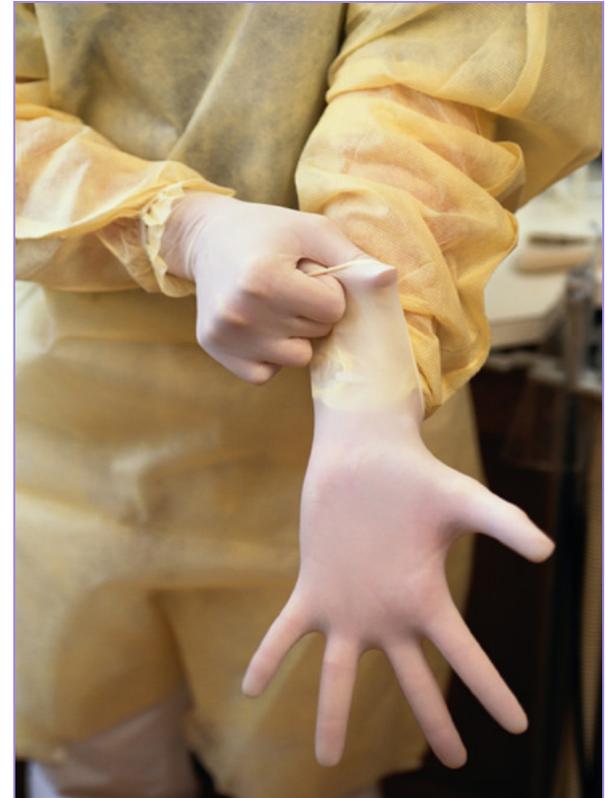
- Lavatory Servicing and Janitorial Work
- Vehicle Cleaning
- Post Accident/Incident Clean-up
- Administering First Aid
- Any other potential exposures?

Universal Precautions

- Use of proper PPE
- **Treat all blood and bodily fluids as if it were contaminated**
- Avoid contact whenever possible
- Proper cleanup and decontamination of all surfaces, tools, equipment and other objects must be administered.
- Washing of all contacted body parts immediately after any potential exposure

Personal Protective Equipment (PPE)

- Anything that is used to protect a person from exposure
- It is essential to have a barrier between you and the potentially infectious material
 - ▣ Examples: Latex or impervious gloves, masks, goggles, face-shields, aprons, etc.



PPE Rules

- ❑ Always wear PPE in exposure situations
- ❑ Always check PPE for defects or tears before use
- ❑ Remove any damaged PPE
- ❑ Do not reuse disposable PPE or equipment
- ❑ Remove PPE before leaving the contaminated area
- ❑ Replenish used PPE
- ❑ Wash hands immediately after PPE use or use hand sanitizers if facilities are not immediately available

Donning and Doffing Gloves



BLOODBORNE PATHOGENS TRAINING

Body Fluid Cleanup kits

- Use bodily fluid cleanup kits for all infectious material spills. Should be readily available.
- Standard kits contain:
 - ▣ Absorbent packs
 - ▣ Disposable gloves and PPE
 - ▣ Contaminant bags
 - ▣ Antiseptic & germicidal wipes
 - ▣ Scoops
 - ▣ Disposable towels
 - ▣ Instruction guide



Bodily Fluid Spill Clean Up

Spill Containment

- Sprinkle necessary absorbent material on spill

Spill Cleanup

- Do an initial cleanup, using PPE
- Use provided equipment, tools & contaminant bags

Decontamination of Area

- Spray spill area with disinfectants then wipe up with germicidal cleaning cloth.
- Dispose all wipes & used PPE in contaminant bags

Potentially Infectious Materials

- What to do with contaminated materials?
 - ▣ Contact waste service provider
- What is considered regulated waste?
 - ▣ Items, that if compressed, could release OPIM
 - ▣ Items, caked with dry blood, that could release OPIM
 - ▣ Contaminated sharps
 - ▣ Wastes containing blood
- Other considerations?
 - ▣ Containers for sharps (Syringes, broken glass, etc.)
 - ▣ Contaminated clothing

If you are exposed

- ❑ Wash the exposed area thoroughly with soap and running water
- ❑ Use non-abrasive soap or liquid hand sanitizer for at least 20 seconds (ABCs)
- ❑ Flush the mucous membranes (eye, nose, mouth) for 15 minutes if splashed by OPIM
- ❑ Immediately report the incident to supervisor
- ❑ Complete the incident report form ASAP

Exposure Incident

- A specific incident of contact with potentially infectious bodily fluid
 - If no infiltrations of mucous membranes or open skin surfaces, it is not considered an exposure incident
- Report all accidents involving blood or bodily fluids to supervisor
- Post-exposure medical evaluations
 - Confidential
 - Document route of exposure and sources of exposure
 - Identify source individual (potential test with consent)

Discussion

- Questions or comments?

