

Bloodborne Pathogens



Learning Objectives

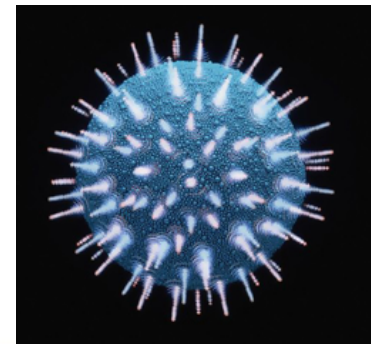
- By the end of this section, the participant should be able to:
 - ▶ Name 3 bloodborne pathogens
 - ▶ Identify potentially contaminated bodily fluids
 - ▶ Describe 3 safe work practices

Bloodborne Pathogens

- Pathogenic microorganisms that are present in human blood and can lead to illness
- Examples of Bloodborne Pathogens
 - ▶ Human Immunodeficiency Virus (HIV)
 - ▶ Hepatitis B (HBV)
 - ▶ Hepatitis C (HCV)

Human Immunodeficiency Virus (HIV)

- HIV is the virus that leads to Acquired Immunodeficiency Syndrome (AIDS)
- By killing or damaging cells of the body's immune system, HIV progressively destroys the body's ability to fight infections and certain cancers.



HIV

- HIV is spread through contact with infected blood, sexual contact with an infected person, contaminated needles, and mother-to-child transmission.
- HIV does not survive well outside the body.
- For more information:
<http://www.cdc.gov/HIV/dhap.htm>

Hepatitis B Virus (HBV)

- Hepatitis B is caused by a virus that attacks the liver.
- The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.
- 1—1.25 million Americans are chronically infected.
- Symptoms include jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, and vomiting.

HBV

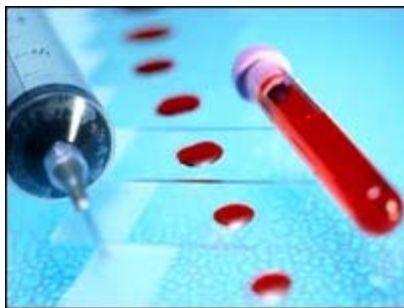
- HBV is spread through contact with infected blood, sexual contact with an infected person, contaminated needles, and mother-to-child transmission.
- Vaccination has been available since 1982.
- For more information:
<http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.htm>

Hepatitis C Virus (HCV)

- Hepatitis C is a liver disease caused by the hepatitis C virus (HCV).
- Hepatitis C is the most common chronic bloodborne infection in the United States.
- Symptoms include jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, and vomiting.

HCV

- HCV is spread primarily by direct contact with infected blood.
- For more information:
<http://www.cdc.gov/NCIDOD/DISEASES/HEPATITIS/c/faq.htm>



Limiting Exposure to Pathogens

- Identify scenarios for exposure
- Practice safe work practices
- Use proper personal protective equipment (PPE)
- Decontaminate equipment
- Properly handle and label bio-waste

Potential Scenarios for Exposure

- Industrial accident
- Administering first aid
- Post-accident cleanup
- Janitorial or maintenance work



Potentially Infectious Bodily Fluids

- Blood
- Saliva, vomit, urine
- Semen or vaginal secretions
- Skin, tissue, cell cultures
- Other body fluids

Treat all blood and bodily fluids as if they are contaminated.

Safe Work Practices

- Proper Personal Protective Equipment should be worn during contact with blood or other body fluids, such as urine, feces, or vomit.
 - ▶ Bleeding control—latex gloves
 - ▶ Spurting blood—latex gloves, protective clothing (smocks or aprons), respiratory mask, eye/face protection (goggles, glasses, or face shield)
 - ▶ Post-accident cleanup— latex gloves
 - ▶ Janitorial work—latex gloves

Safe Work Practices

- Cuts, sores, or breaks on both the care giver's and patient's exposed skin should be covered with bandages.
- Hands and other parts of the body should be washed immediately after contact with blood or other body fluids.
- Needles and other sharp instruments should be used only when medically necessary and handled according to recommendations for healthcare settings.

Safe Work Practices

- Always stay within the scope of your position, and never engage in an activity you are not licensed to perform.

Safe Work Practices

- If you are not a medical professional, you may still need to protect yourself
- As a nonmedical professional, always do your best to avoid bodily fluids, or to handle them properly if avoidance is not possible
- Tell your supervisor if you feel an activity is unsafe **BEFORE** beginning the activity

Decontamination

- Decontaminate equipment and work surfaces (Solution of 1/4 cup bleach per gallon of water)
- Thoroughly wash up immediately after exposure
- Properly dispose of contaminated items

Regulated Medical Waste

Carefully handle, label, and dispose of the following medical waste:

- Liquid or semi-liquid blood or OPIM (other potentially infectious materials)
- Contaminated items that would release blood or OPIM when compressed
- Contaminated sharps
- Pathological and microbiological waste containing blood or OPIM

Medical Waste Handling

- Use proper Personal Protective Equipment and wash hands after handling.
- Dispose of waste in properly labeled water impervious bags (usually red or orange bags). Dispose of sharp items in puncture-proof containers
- Do not over fill bags.
- Keep bags closed until they are ready to be decontaminated.
- Do not dispose of medical waste bag in the regular trash.
- Do not place these bags in public areas such as hallways.

Labels and Signs

- Labels must include the universal biohazard symbol, and the term “Biohazard” must be attached to:



- ▶ Containers of regulated biohazard waste
- ▶ Refrigerators or freezers containing blood or OPIM
- ▶ Containers used to store, transport, or ship blood or OPIM

REMEMBER

Treat all blood and bodily fluids as if they are contaminated to avoid contracting bloodborne disease.

If you are not a medical professional, do your best to avoid situations with blood and bodily fluids.