

Bloodborne Pathogens & Needle Stick Safety



- 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



Required by OSHA (29 CFR 1910.1030)

- Applies to employees in all industries who may be exposed to blood or other potentially infectious materials
- “Good Samaritan” acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Required by OSHA (29 CFR 1910.1030)

- At the time of initial assignment to tasks where occupational exposure to blood or other potential infectious materials (OPIM) may take place.
- Annually, thereafter.



- Microorganisms such as viruses or bacteria that are present in human blood and can cause diseases in humans
 - Human Immunodeficiency Virus (HIV)
 - Hepatitis B Virus (HBV)
 - Hepatitis C Virus (HCV)

- The virus which causes AIDS
- Devastates the body's immune system
- ~1 million persons living with HIV/AIDS in U.S.; 40,000 new cases each year
- Symptoms: flu like illness, weakness, diarrhea, weight loss.
- Signs of illness may not be present for years
- AIDS is chronic and fatal

- Attacks the liver
- Survives in dried blood for up to 1 week at room temperature
- Symptoms: fatigue, nausea, vomiting, abdominal pain, anorexia
- Can be chronic and fatal

- 2 Billion People infected Worldwide.
- 12 Million infected in U.S.
 - More than 1 Million chronically infected.
- 100,000 new infections each year.
- 5,000 people die each year from HBV and its complications.
- ~ 1 Health Care worker dies each day from HBV.

- Can lead to chronic hepatitis and liver cancer
- 4 million infected in U.S.
 - Only 25% diagnosed
- Can be chronic and fatal
- 20,000 – 25,000 deaths annually
- No effective vaccine exists

- Blood
- Human bodily fluids such as:
 - Semen,
 - Vaginal secretions,
 - Saliva
- Any bodily fluid containing visible blood
- Any bodily fluid that cannot be identified

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



- 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

- During an industrial accident
- While administering First Aid
- During post-accident clean-up
- When performing routine maintenance or janitorial work



Exercise



Items caked with dried blood



Adhesive bandages or tissues



Contaminated sharp objects



Liquid or semi-liquid blood



Disposable PPE that results from the cleanup of a cut



Blood that is absorbed without release of a liquid when compressed



Pathological and microbial wastes containing blood or OPIM

- Universal precautions
- Engineering controls
- Work practice controls
- Post-exposure follow-up

- Treat all human blood and bodily fluids as if they are infected with HIV, HBV, HCV and other bloodborne pathogens.

- **Engineering Controls**

- Hand Washing facilities
- Biohazard waste bags



- **Work Practice Controls**

- Personal protective equipment (PPE)
- First aid response
- Spill clean-up
- Laundry
- Waste disposal
- Exposure response

- First line of defense
- Examples and uses
- Limitations
- Rules:
 - Remove before leaving work area
 - Wash hands after removing
 - Properly dispose of contaminated PPE



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



- Adopt Universal Precautions
- Encourage self-care
- Use PPE
- Avoid applying pressure without barrier



- Use PPE & Universal Precautions
- Cover spill or area with paper towel or rags
- Pour disinfectant solution over towels or rags
- Leave for at least **10 minutes**
- Place materials in appropriate container
- Arrange for pick-up and disposal

Decontamination Involving Sharp Objects

- Remove glass and other sharp materials using a brush and dust pan, or tongs
- Do not use your hands
- Use paper/absorbent towels to soak up the residual liquids
- Disinfect all surfaces, and allow time to dry before using again



- Use PPE when handling
- Leak-proof containers
- Proper labeling
 - Labels
 - Red Bags or Containers
- Drop-off sites



To prevent contamination:

- Use a device such as dustpan and broom to pick up sharp objects
- Place sharp objects in the correct type of labeled sharps container
- Place all contaminated waste in red biohazard bags within a secondary container

To prevent contamination:

- Wash hands as soon as possible after contamination and after removing gloves
- Do not handle items such as pens or door handles while wearing gloves
- Clean and decontaminate equipment and surfaces that had contact with infectious materials

- Prepare to use the device ***the moment the sharps are first exposed***
- Take precautions ***while using sharps***
- Take precautions ***during cleanup***
- Take precautions ***during disposal***

- Be prepared
- Be aware
- Dispose with care



While Disposing of Sharps

- Inspect container
- Keep hands behind sharps
- Never put hands or fingers into sharps container

After Disposing of Sharps

- Visually inspect sharps container for overfilling
- Only **Authorized** team members replace containers before they become overfilled
- Keep filled containers for disposal in a secure area

If You Find Improperly Disposed Sharps in Work Environment

- Contact your Supervisor
- If **authorized** and **instructed** follow procedures and handle carefully
 - Keep hands behind sharps at all times
 - Use mechanical device if you cannot safely pick up sharps by hand

- Laundry soiled with blood or OPIM
- Use PPE
- Handle as little as possible
- Pre-soak all contaminated clothing
- If blood or OPIM gets on clothing, remove and thoroughly wash with detergent ASAP

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 or chemicals



Wearing double gloves to reduce contamination risk



Disposing of contaminated items properly



Storing food in any work area where blood, bodily fluids or chemicals may be present



Disinfecting contaminated equipment and work surfaces



Washing up immediately after exposure

- Wash cuts and skin thoroughly
- Rinse nose and mouth for 15 Min.
- Flush eyes with clean water or sterile solution for 15 Min.
- Clean all contaminated surfaces
- Report all incidents



- Confidential medical evaluation and follow-up after exposure incident
 - Identify and document source and circumstances of exposure
 - Test source individual's blood for HIV/HBV
 - Provide blood sample
- Healthcare professional's written opinion



- First Aid and/or Bloodborne Pathogens Exposure Report (found in your SDS book).

- Made available to all employees at risk for occupational exposure on initial job assignment
- Made available after exposure incident



- Hepatitis B Vaccine Declination (found in your SDS book).

Exercise

Put the response steps in their proper order

1. Clean and decontaminate all infected surfaces.
2. Report the incident.
3. Flush your eyes with clean water or sterile solution if you were not wearing goggles or safety glasses.
4. Rinse your nose and mouth to remove any potential splashes of blood or OPIM.
5. Wash cuts and skin thoroughly with soap and water.

Key Points to Remember

- Bloodborne pathogens can cause fatal disease
- Be aware of exposure at work
- Take universal precautions
- Use PPE and safe work practices Decontaminate yourself and equipment
- Understand and follow exposure incident procedures Report exposure incidents

Questions Concerning Bloodborne Pathogens



/ ATALIAN. For a better performance

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