

## BLOODBORNE PATHOGENS





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### Learning Objectives

By the end of this lesson, students will be able to:

- Define bloodborne pathogen.
- List the three ways exposure to bloodborne pathogens commonly occurs.
- Give at least three examples of work situations where young workers may be exposed to bloodborne pathogens, such as park maintenance, cleaning bathrooms or motel/hotel housekeeping.
- Describe at least three ways that workers can be protected from exposure to blood borne pathogens, including properly used PPE and appropriate housekeeping methods
- List three important steps to take if exposed to a bloodborne pathogen.
- Identify whether state law permits youth under 18 to work in jobs with exposure to bloodborne pathogens.



**Time Needed: 30 Minutes**

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### Materials Needed

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- Handouts: *Bloodborne Pathogens (A)*  
*Scenarios: Blood Exposure in the Workplace (B)*

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### Preparing to Teach This Lesson

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1. Make copies of handouts (A) and (B).
2. If conducting optional activity locate the bloodborne pathogen cleanup kit in your classroom and look through its contents to demonstrate.

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### Detailed Instructor's Notes

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#### A. Introduction: What are bloodborne pathogens? (10 minutes)

Concern about exposure to bloodborne pathogens in the workplace was limited until the appearance of the HIV virus during the AIDS epidemic in the 1980's. Prior to that time, personal protective equipment was primarily worn by health care workers to protect the patients from getting infections. After the discovery of HIV, healthcare employees wore PPE to protect themselves from becoming infected from various infectious diseases. This influenced the development of regulations to protect workers from a variety of different diseases caused by bloodborne pathogens.

1. Give students Handout (A) *Bloodborne Pathogens*. Use the following questions to review the handout.

**How Infectious Diseases are Transmitted:**

*Why should you be concerned about being exposed to someone else's blood or other bodily fluids, or skin contact?*

- You could be exposed to diseases

*What are some examples of bloodborne diseases?*

- HIV
- Hepatitis B
- Hepatitis C



Although they are not transferred by blood, and are not classified as bloodborne diseases, there are other types of serious infectious diseases that workers need to be aware of. These can be transmitted by skin exposure or by inhalation.

*What are examples of other infectious diseases?*

- Methicillin-Resistant Staph Aureus (MRSA)
- Tuberculosis
- SARS
- Hepatitis A (fecal to oral contact)

*What are some ways you might be exposed to blood or bodily fluids in the workplace?*

- Cleaning bathrooms (restaurants, hotels)
- Co-worker is injured or cut by a sharp object
- Needles in trash (custodial work)
- Needles in outdoor settings (park clean-up)
- Needles in laundry (health care)

Discuss with students how contracting one of these illnesses can affect your life short term and long term.

*How can workers be protected from these risks?*

- Personal protective equipment (gloves, eye protection, CPR mouthpieces)
- Procedures and special containers for used needles in health care settings
- Training on how to handle first aid injuries at work (who is in charge)
- Training on how to handle trash (do not crush bags) or what to do if needles are found in the work area (contact manager)



**Instructor Note:** *All workers, regardless of their age, are not allowed to deal with blood or body fluids without proper training from their employer. If you are a minor you are not allowed to be exposed to blood or body fluids while on the job.*

*What should you do if you are exposed?*

- Wash your skin well with soap and water.
- Flush your nose, mouth or skin with water if they have been splashed.
- If it got in your eyes, irrigate eyes with water or saline.
- Report the exposure.
- Talk to a health care professional to find out what follow-up you need.



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## **B. Small Groups Work on Scenarios (20 minutes)**

1. Give students Handout (B) *Scenarios: Blood Exposure in the Workplace*. Divide students into groups of 3-4 students. Ask each group to consider one scenario, and answer the questions.
2. After 5-10 minutes, bring students back together and ask each group to report on their scenario.

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## **Optional Activity**

### **Bloodborne pathogen clean-up kit demonstration**

If your room or school has a bloodborne pathogen clean-up kit, you may want to demonstrate to your students what is found in the kit to prevent workers from being exposed to bloodborne pathogens if they have to clean up a spill or an area that has been exposed to bloodborne pathogens. It is important to emphasize to students that all workers, regardless of their age, are not allowed to deal with blood or body fluids without proper training from their employer. Also point out that if they are minors, they are not allowed to be exposed to blood or body fluids while on the job.

**The following OSHA and State of Washington L&I-DOSH-WISHA codes correspond to information in this unit:**

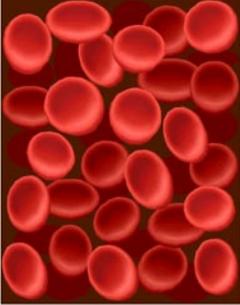
**OSHA 29 CFR 1910.1030 Bloodborne Pathogen Code**

**L&I DOSH WISHA WAC 296-823 Bloodborne Pathogens**



# Bloodborne Pathogens and Other Infectious Diseases

## Bloodborne Pathogens



Bloodborne pathogens are bacteria or viruses that are biological hazards. They can be transmitted by contact with an infected person or from exposure to contaminated body fluids or tissues. Three very serious diseases that can be transmitted by contact with contaminated blood or other body fluids include:

- Hepatitis B
- Hepatitis C
- HIV

## Other Infectious Diseases (not bloodborne)

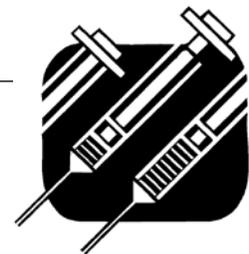
There are other serious infectious diseases that you can be exposed to, but they are not transferred by blood or body fluids. These diseases can be transmitted by skin exposure, inhalation or other methods of exposure:

- Tuberculosis
- Methicillin-Resistant Staph Aureus (MRSA)
- SARS
- Hepatitis A

Doctors and nurses are not the only workers who are at risk of exposure to bloodborne pathogens. Police, firefighters, teachers, first-aid providers, emergency medical technicians, janitors and housekeeping staff, and laundry workers are some of the other workers who might be exposed to bloodborne pathogens at work.

## Exposure to bloodborne pathogens in the workplace commonly occurs in these ways:

1. Needle sticks [or punctures from used needles].
2. Cuts from other contaminated sharps such as scalpels or broken glass.
3. Contact of the eye, nose, mouth or cut or abraded skin with contaminated blood or other body fluids.



## Work practices can help protect workers against exposure to bloodborne pathogens

1. Using personal protective equipment like gowns, gloves, face shields, eye protection, mouthpieces and resuscitation devices provide a barrier between potential contaminants and the body.
2. Cleaning and decontamination of work surfaces reduce the chances of exposure to a bloodborne pathogen.
3. Thorough hand-washing also reduces the risk of exposure.



You cannot tell by looking at a person whether or not he or she is infected with a bloodborne disease. As a precaution, it's important to treat all blood and other body fluids as if they are contaminated. That's called "universal precautions." It means that you don't touch the blood or body fluids of other people at work.

**If you are exposed to a bloodborne pathogen:**

1. Wash your skin well with soap and water.
2. Flush your nose, mouth or skin with water if they have been splashed.
3. If it got in your eyes, irrigate eyes with water or saline.
4. Report the exposure.
5. Talk to a health care professional to find out what follow-up you need.



## Scenarios: Blood Exposure in the Workplace

1. You work in the laundry department of a nursing home. Used hypodermic needles sometimes show up in the dirty laundry. You have finally decided to talk to the supervisor about this, but you are worried about how to do this, because you don't want to lose your job, or sound like you're complaining about the medical staff.



- a) What do you need to prepare in advance? What do you think possible solutions are?
  - b) Will you go by yourself or with co-workers? Why?
  - c) What will you say to the supervisor?
  - d) If the supervisor doesn't take you seriously, what will you do next?
2. You are a supervisor in a park maintenance program where many young people work. The workers pick up all sorts of trash. You are concerned that someone might get stuck by a used needle, but you think the workers don't take this very seriously.

3. You work in a restaurant, and usually end up cleaning the bathrooms. They don't seem to get cleaned very often, so they're usually pretty dirty. You're provided with some bleach, but no gloves. You're worried about catching some kind of disease, but don't want to sound like a complainer.



- a) What do you think possible solutions are?
  - b) Will you talk to the supervisor? Will you go by yourself or with co-workers? Why?
  - c) What will you say?
  - d) If the supervisor doesn't take you seriously, what will you do next?
4. One of your co-workers got a bad cut on a piece of glass. He's bleeding badly and you are the nearest person. What will you do?



