

# Bloodborne Pathogen Training for School Staff





The information contained in this presentation represents a compilation of best practice standards and policies that are consistent with the Sequoia Union High School District Board Policy and Administrative Regulations. The local board of education has the authority to develop school policies and procedures specific to its school district. Prior to teaching this course to school staff, it is highly recommended that each nurse review and become familiar with his/her school district's Bloodborne Pathogen Exposure Control Plan. The information in this resource is not meant to supersede local school board policies. Further, the inclusion of information, addresses or Web sites for particular items does not reflect their significance, nor is it intended to endorse any views expressed or products or services offered.



# Training Objectives

Provide a basic understanding of:

1. Bloodborne pathogens (BBP).
2. Common modes of transmission of BBP.
3. Methods to prevent transmission of BBP.
4. Information to help school staff maintain compliance with the BBP standard.

# Why do I need this training



Schools are responsible for identifying and educating staff who could be “reasonably anticipated,” as a result of performing their job duties, to be in contact with bloodborne pathogens.

**It is extremely important that you understand and can access our school’s Exposure Control Plan!**

# Regulatory Authority

## OSHA

### *Occupational Safety & Health Administration*

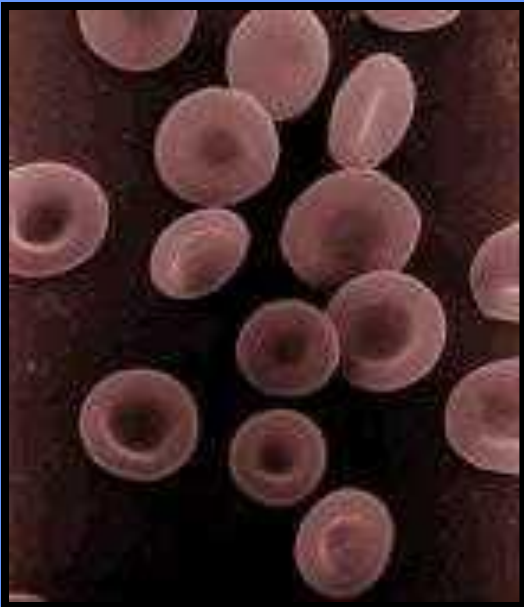
- Federal agency.

OSHA regulations state that an exposure incident is parenteral contact with blood or other potentially infectious material i.e. through specific eye, mouth or other mucous membrane, and/or non-intact skin that results from the performance of an employee's duties.

These prescribe safeguards to protect workers against the health hazards from exposure to blood & other potentially infectious materials. Standards in schools apply only to staff, not students!

# What are **Bloodborne Pathogens**?

Viruses, bacteria and other microorganisms that are carried in the bloodstream and can cause disease.



The most common bloodborne pathogens are:

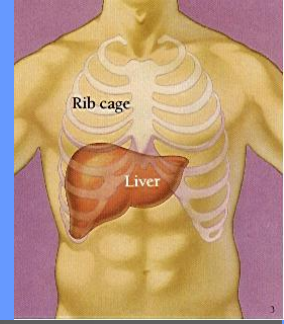
- ✓ **Human Immunodeficiency Virus (HIV)**
- ✓ **Hepatitis B Virus (HBV)**
- ✓ **Hepatitis C Virus (HCV)**

# Hepatitis B Virus (HBV)

1. Hepatitis means “inflammation of the liver.”
2. Most infectious bloodborne hazard.
3. Can survive outside the body for up to a week.
4. Vaccination for HBV is available and very effective.



# HBV Symptoms



If you become infected with HBV you may have:

1. Flu-like symptoms.
2. Pain on the right side of the abdomen.
3. A condition in which the skin and the whites of the eyes turn yellow in color (jaundice).
4. Dark urine (like cola or tea).
5. Pale stools.

*Some people have no symptoms at all!*



# Hepatitis B Vaccine



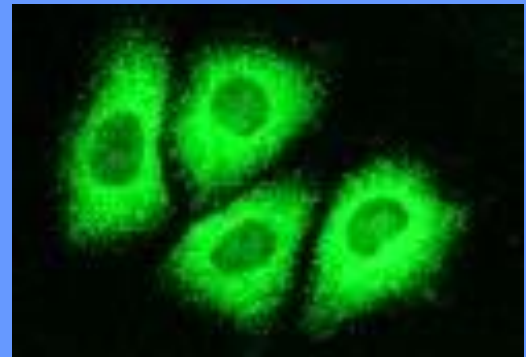
Hepatitis B vaccine series must be offered at no cost to all staff who *are at risk of an occupational exposure* to blood or **Other Potentially Infectious Materials (OPIM)**.

1. Staff considered at risk should be notified by the district.
2. Vaccination is a series of three injections over seven months, with relatively few side effects.

# Hepatitis C Virus (HCV)

---

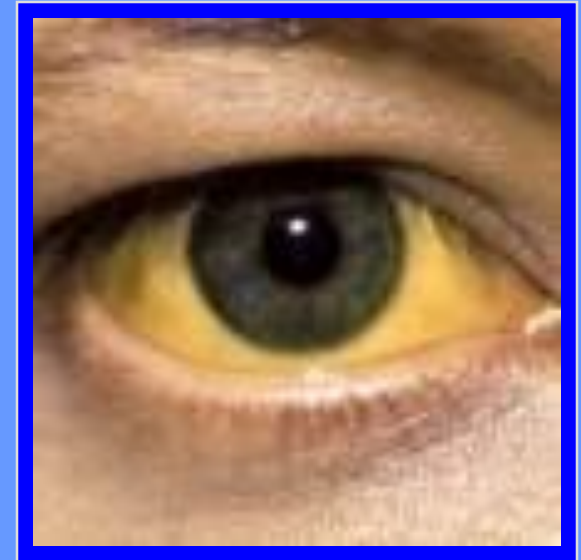
1. Long-term effects include chronic liver disease and death.
2. No treatment or vaccine is available for HCV.
3. Virus does not survive well out of the body.



# HCV Symptoms

Hepatitis C symptoms are very similar to Hepatitis B symptoms:

1. Pain on the right side of abdomen.
2. Jaundice.
3. Fatigue.
4. Appetite loss.
5. Nausea.
6. Dark-colored urine.
7. Stools become pale in color.



# Human Immunodeficiency Virus (HIV)

1. HIV attacks immune system & can cause the disease known as AIDS.
2. AIDS is the second-leading cause of death for age group 25-44 years.
3. Mostly commonly spread by unprotected sex or sharing needles.



# Symptoms of HIV

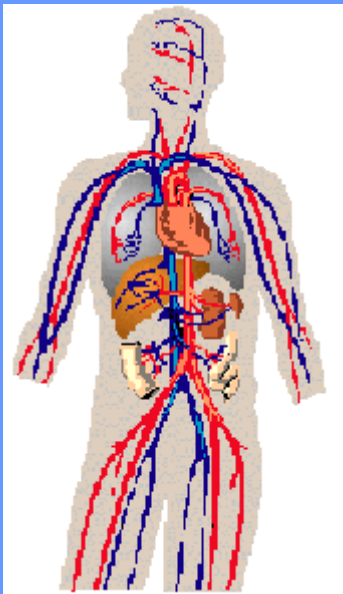


1. Flu-like symptoms.
2. Night sweats or fever.
3. Weight loss.
4. Fatigue.
5. Swollen glands.
6. May also develop AIDS-related illnesses including neurological problems and cancer.

*A person with HIV may carry the virus without developing symptoms for 10 years or more.*

# Transmission: How BBP Enter Your Body

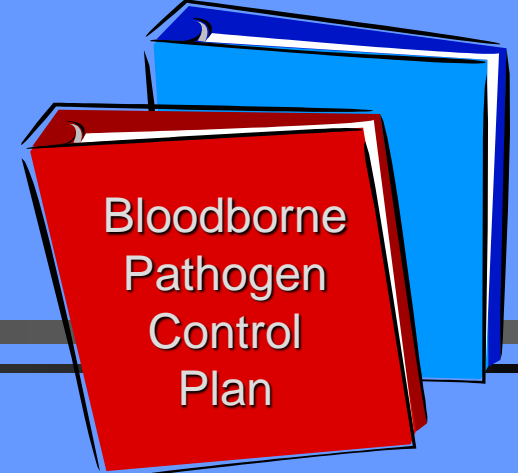
*Bloodborne pathogens can be transmitted when there is **direct contact** with blood or OPIM of an infected person.*



1. Blood entering open cuts, wounds or skin abrasions.
2. Blood splashing into your eyes, nose or mouth area (mucous membranes).

OPIM=Other Potentially Infected Material

# Exposure Control Plan



## Written plan to protect staff from BBP:

1. Identifies staff at risk.
2. Identifies jobs and tasks at risk.
3. Vaccination program.
4. Work practice controls.
5. Use of personal protective equipment.
6. Post exposure incident procedure.

*The plan must be accessible!*



# Potential Risk of Exposure

## **Jobs:**

1. School nurses.
2. Coaches & athletic trainers.
3. Custodians.
4. Secretaries.

## **Tasks:**

1. Illness/injury care.
2. Caring for sports injuries.
3. Cleaning up bloody waste.
4. Performing first aid.



# Work Practice Controls

Are methods that reduce the chance of an exposure to BBP including:

1. Universal precautions.
2. Hand washing.
3. Engineering control (such as sharps containers).



When occupational exposure risk remains, personal protective equipment (PPE) must be used.

# Universal Precautions

The practice of treating ALL human blood as if it is infectious.

1. Assist in the prevention of contact with blood and other body fluids.
2. Provide the first line of defense against the risks of exposure to bloodborne pathogens.



# Universal Precautions



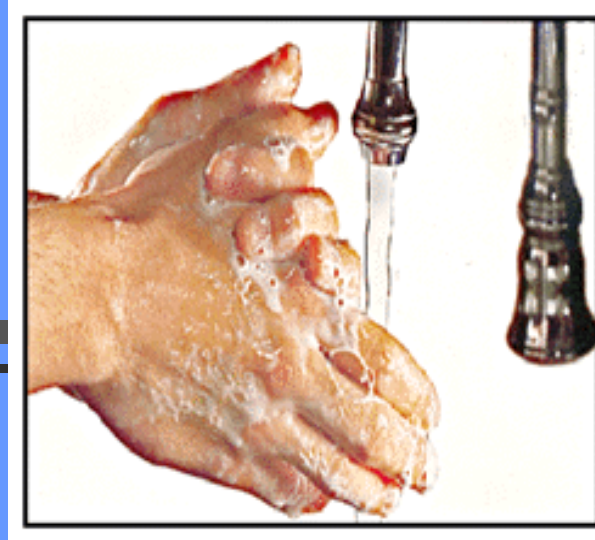
**Apply** when there is a possibility of coming in contact with:

1. Blood.
2. OPIM.

**Do not apply** to the following unless blood is visible:

1. Feces.
2. Urine.
3. Sweat.
4. Nasal secretions.
5. Vomit.

# Hand Washing



Wash hands before:

- Eating.

Wash hands after:

- Any contact with blood, body fluids or soiled objects.
- Using the toilet.
- Assisting with personal hygiene.

**This is the single most important technique for preventing the spread of infectious diseases.**

# Hand Washing Technique

START →



1. Wet hands



2. Soap  
(20 seconds)



3. Scrub backs  
of hands, wrists,  
between fingers,  
under fingernails.



4. Rinse

## HAND WASHING STEPS



6. Turn off  
taps with  
towel



5. Towel dry

1. Use soap & water to wash hands when available.
2. **Always** use soap & water if hands are visibly soiled.

<http://www.co.la-crosse.wi.us/Health/Environmental/docs/HandWsh.htm>

# Alcohol-based Hand Sanitizers

Procedure:

1. Apply to palm of one hand.
2. Rub hands together.
3. Rub the product over all surfaces of hands and fingers until hands are dry.



Remember: if hands are visibly soiled, wash with soap & water!

# Personal Protective Equipment (PPE)

Specialized clothing or equipment that provides protection against infectious material.

**Gloves**

**Gowns**

**Eye protection**

**Resuscitation devices**



# Personal Protective Equipment (PPE) in the School







1. PPE is provided at no cost to staff.
2. Must be accessible.
3. Type of PPE used is determined by task you are performing.





# PPE Guidelines: **Gloves**



-  Wear gloves when contact with potentially infectious materials is anticipated.
-  Check gloves before use (no small holes, tears, cracks).
-  Remove contaminated gloves before leaving the work area.
-  Wash hands after removing gloves.
-  Never reuse disposable gloves.
-  Types of gloves than can be used include vinyl, latex, neoprene or utility gloves.

# Glove Removal Demonstration



Step 1



Step 2



Step 3



Step 4



Step 5

# Disposing of Sharps

1. All contaminated sharps are discarded as soon as feasible in a designated sharps container.
2. Containers will be found where sharps are used.
3. Disposal is regulated by the Ohio EPA.



# Signs and Labels

1. Check for the Biohazard Sign which warns that the container holds blood or other infectious material.
2. Staff responsible for biohazard waste disposal will be informed of the district policy.
3. Waste such as bloody tissues can be disposed of in plastic-lined trash cans and do not need a biohazard label.



# Cleaning Blood Spills

1. All surfaces and equipment that come in contact with blood must be decontaminated with appropriate cleaning solution.
2. Take your time and be careful.
3. Avoid splashing contaminated fluids.
4. Wear appropriate PPE.



# Cleaning Up and Decontamination

Some commercially available solutions will effectively disinfect surfaces and equipment.

1. Look for “tuberculocidal agent that kills hepatitis B virus.”
2. Store cleaners according to label instructions.

Household chlorine bleach:

1. Solution must be made fresh every 24 hours.
2. Use a 10% bleach solution.



# Cleaning Up a Blood Spill

## Cleaning process:

1. Apply gloves.
2. Absorb spill.
3. Apply 10% bleach solution or approved disinfectant.
4. Let solution sit for appropriate time:  
Bleach solution = 15 minutes.  
Follow label on other products.



# What is an Exposure Incident?

A specific incident, while providing job duties, that results in blood or OPIM “getting in” through:

1. Non-intact skin.
2. Mucous membranes (eyes, nose, mouth).



OPIM=other potentially infectious materials



# What to do if an Exposure Occurs



1. Immediately:
  - **Wash** the exposed area with soap & water.
  - **Flush** splashes to nose, mouth or skin with water.
  - **Irrigate** eyes with water or saline.
2. Report the incident according to your district plan.
3. The district will provide for additional medical evaluation and treatment, if needed, at no cost to the staff member.

# BBP Training

Must be completed:

1. Annually.
2. Any time your job duties change and put you at higher risk of exposure.

See you next year!



# QUIZ

---

- Bloodborne pathogens are disease causing organisms found in the blood and body fluids of an infected person.

True

False

- 
- When infected with a bloodborne pathogen, a person will show symptoms right away.

True

False

- 
- Hepatitis B(HBV) and Hepatitis C(HCV) are both viral infections that affect the heart.

True

False

- 
- The HIV, HBV and HCV viruses are not spread through the air.

True

False

---

HIV, HBV and HCV are transmitted through contact with blood and body fluids containing visible blood.

True

False

- 
- For you to actually get HIV, HBV or HCV, the virus must get inside your body.

True

False



---

HIV, HBV or HCV can enter your body indirectly, such as when you touch an infectious material, then you touch your eyes, nose or mouth.

True

False

- 
- The only time you really need to wear gloves when cleaning up blood or body fluids is when you know for sure the person's blood is infected.

True

False

- 
- Before assisting someone who is bleeding, you should put on cloth gloves.

True

False

---

You can reuse disposable latex gloves if you wash them.

True

False

---

After removing gloves, always wash your hands with non-abrasive soap and water as soon as possible.

True

False

---

Broken glass that may be contaminated should be picked up very carefully with your hands.

True

False

- 
- If you empty garbage cans or laundry bins, always pick up and carry bags by the top.

True

False

- 
- If you think you have been exposed to HIV, HBV or HBC, report the incident to your supervisor as soon as possible.

True

False



- 
- You should treat all blood and body fluids as if they are infected, and take steps to protect yourself.

True

False

# Questions

If you have any questions or concerns, contact your nurse.



# References

- **OSHA BBP Safety & Health Topics**  
<http://www.osha.gov/SLTC/bloodbornepathogens/index.html>
- **OSHA BBP Training Regulations**  
[http://www.osha-slc.gov/OshStd\\_data/1910\\_1030.html](http://www.osha-slc.gov/OshStd_data/1910_1030.html)
- **US Centers for Disease Control and Prevention**  
<http://www.cdc.gov>
- Centers for Disease Control and Prevention (2006) Atkinson, W., Hamborsky, J., & Wolfe, S. (Eds.) *Epidemiology and Prevention of Vaccine-Preventable Diseases*, 9<sup>th</sup> Ed., Public Health Foundation: Washington, DC.

# Resources

---

- **School District Exposure Plan**
- **OSHA Bloodborne Pathogens Standard (Standard – 29 CFR 1910.1030) <http://www.osha.gov>**
- Champion, C. (2005). *Occupational Exposure to Bloodborne Pathogens: Implementing OSHA Standards in a School Setting*. National Association of School Nurses, Inc: Castle Rock, CO.
- American Academy of Pediatrics (2006) In: Pickering, LK, (Ed.) *Red Book: 2003 Report of the Committee on Infectious Diseases*, 27<sup>th</sup> Ed. American Academy of Pediatrics: Elk Grove Village, IL.

# Acknowledgements

This presentation was produced by the Ohio Department of Health (ODH), School and Adolescent Health, in collaboration with the University of Findlay.

Funding for this project was provided by the U.S. Department of Health and Human Services, Maternal and Child Health Bureau and the ODH Centers for Disease Control Emergency Preparedness Grant.

