

BLOODBORNE PATHOGENS

2021-2022

WESTERN DUBUQUE SCHOOLS





Welcome to our online Bloodborne Pathogen training required of all Western Dubuque coaches and various substitutes each year. This training will fulfill the requirements of the Occupational Safety and Health Administration (OSHA) mandate for the 2018-2019 school year. Please read through this presentation in entirety and take the short quiz at the end. Upon completion, you will need to print off and fill in a Certificate of Completion.

Have a safe and healthy school year!

Bloodborne Pathogen Standard

The Bloodborne Pathogens Standard applies to employees who have occupational exposure or reasonably anticipated job-related contact with blood or other potentially infectious materials.

To comply with OSHA's standards we are required to offer training on initial assignment, and at least annually thereafter to limit exposures and keep employees safe.

HERE'S HOW:

WHAT ARE BLOODBORNE PATHOGENS (BBP)?

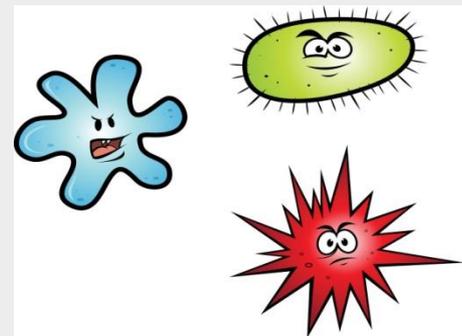
- Bloodborne Pathogens are infectious microorganisms present in blood that can cause disease in humans (OSHA, 2011).
- Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses



COMMON BLOODBORNE PATHOGENS

Common bloodborne pathogens include, but are not limited to the following:

- Hepatitis B
- Hepatitis C
- Human Immunodeficiency Virus (HIV)



HEPATITIS B (HBV)

- Hepatitis means “inflammation of the liver”
- Can be acute -mild illness lasting a few weeks OR: chronic-serious lifelong illness
- Many people do not know they are infected or do not have symptoms, but can still transmit disease
- Rates of HBV in the US have declined 82% since 1990 with routine vaccination of all children (CDC, 2009)
- Hepatitis B virus can survive outside the body at least 7 days. During that time, the virus can still cause infection if it enters the body of a person who is not infected.
- Vaccination **IS** available-3-4 injection series over 6 month period
- Chronic Hepatitis B is a serious disease that can result in long-term health problems, including liver damage, liver failure leading to cirrhosis, liver cancer, or even death. Approximately 2,000–4,000 people die every year from Hepatitis B-related liver disease (CDC, 2009)

HBV SYMPTOMS

- Symptoms of acute Hepatitis B, if they appear, can include:
- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain



(CDC, 2009)

HEPATITIS C VIRUS (HCV)

- Can also be either “acute” or “chronic”
- Similar symptoms to HBV but can affect the liver differently
- There is **no** vaccine available for HCV
- It is estimated 3.2 million persons in the United States have chronic Hepatitis C virus infection. Most people do not know they are infected because they don't look or feel sick, approximately 70-80% of people infected with HCV do not have symptoms (CDC, 2009)
- There is currently no medication available to treat HCV
- The Hepatitis C virus can survive outside the body at room temperature, on environmental surfaces, for at least 16 hours but no longer than 4 days (CDC, 2009)

HCV SYMPTOMS

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellow color in the skin or eyes) (CDC, 2009)

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

- HIV attacks the immune system and can cause the disease known as AIDS
- Most commonly spread by unprotected sex or sharing needles. Can also be passed from mother to child during pregnancy, birth, or breast-feeding
- Is **NOT** spread by air or water, insects, saliva, tears or sweat. Cannot be transmitted by shaking hands or sharing dishes
- HIV does not survive long off the human host
- Treatment with antiretroviral (ART) has reduced the levels of virus in the bloodstream to undetectable levels for many (CDC, 2011)

HIV SYMPTOMS

- May carry the virus without developing symptoms for several years
- May suffer from flu-like symptoms, fever, diarrhea, fatigue, and swollen glands
- May develop AIDS-related illnesses including neurological problems, and cancer

WHY WORRY ABOUT THIS AT SCHOOL?

- At school the most common exposure hazards are related to administering first aid, accident clean-up, and janitorial/maintenance work
- Risk of exposure in the school setting is relatively low
- Preventing exposure is the best policy



WORKPLACE TRANSMISSION

- Bloodborne pathogens can be transmitted when blood or other potentially infected materials (OPIM) enter the body of a person who is not infected
- Blood or other OPIM may enter via open cuts or skin abrasions
- Blood splashing into eyes, nose, or mouth
- Contaminated surfaces may also spread the Hepatitis viruses. HBV can survive on environmental surfaces dried and at room temperatures for up to one week

ACCIDENTAL INJURY

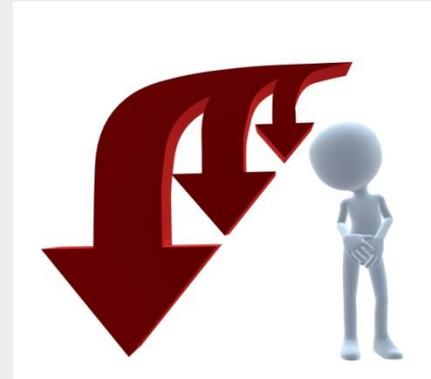
- An employee can also become infected via accidental injury with a sharp object that is contaminated. In the school setting this may include the following:
 - Sharp metal
 - Needles
 - Broken glass
 - Knives



REDUCING YOUR RISK

OSHA's Bloodborne Pathogens Standard requires schools to implement the following measures to reduce potential exposures:

- universal precautions
- exposure control plan
- engineering controls
- work practice controls
- use of personal protective equipment
- post-exposure evaluation and follow-up



UNIVERSAL PRECAUTIONS

- Universal precautions means that all human blood and other potentially infectious materials (OPIM) should be considered infectious, regardless of the perceived status of the source individual
- There are many people who carry infectious diseases without visible symptoms. Bloodborne disease infect people from:
 - All age groups
 - Every socioeconomic class
 - Every state and territory
 - Rural areas and inner cities
- Think about the possible exposures in the classroom and playground and be prepared to act.



EXPOSURE CONTROL PLANS

- The Exposure Control Plan is required by OSHA standard 29 CFR 1010.1030
- This written plan is intended to eliminate or minimize occupational exposures (OSHA, 2011)
- The plan identifies job classifications in which all workers have occupational exposures and a list of job classifications in which some workers have occupational exposures (OSHA, 2011)
- The plan determines what measures will be taken to minimize the risk of exposure to BBP while on the job
- This plan was revised June 2011
- A copy of the plan is available from the school nurse in each building
- The plan is updated annually to identify changes in job duties, procedures, and positions that affect occupational exposure

ENGINEERING AND WORK PRACTICE CONTROLS

Include devices that remove BBP hazards from the workplace and practices that reduce the possibility of exposure. Examples are as follows:

- Sharps disposal containers
- Biohazard bags
- Surface decontamination procedures
- Injury protection procedures



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Equipment or clothing that protects you from contact with blood or other potentially infectious materials

- Gloves
- Gowns
- Barriers-gloves, gauze or anything else to use as a barrier between you and a persons' body fluid
- Masks
- Protective masks when performing CPR
- Eye protection

Use of PPE is determined by the task you are performing

POST-EXPOSURE EVALUATION AND FOLLOW-UP

If an exposure incident occurs despite your use of standard precautions.....

- **Wash** the exposed area with copious amounts of soap and water
- **Flush** a mucous membrane splash (eye, nose, or mouth)
- **Wash** a cut or needlestick injury thoroughly with soap and water
- **Irrigate** eye splashes for 10-15 minutes with water or saline
- **Report** the incident to your school nurse and principal ASAP
- **Seek** medical attention as needed and appropriate
- **Document** incident (online and Exposure Incident Investigation Form)

The district's Occupational Health provider (Tri-State Occupational Health) will provide an examination, post-exposure counseling and vaccination/treatment options on an individual basis



HANDWASHING



Proper hand hygiene is the most effective way to prevent the spread of infection

- Wash hands when they are visibly dirty or soiled with blood or other body fluids
- Wash hands whether gloves are worn or not and after removal of gloves
- If hands become soiled with blood or body fluids, wash immediately before touching anything else
- Use soap, water, and paper towels
- May use an alcohol-based hand rub or gel if soap and water are not available

GLOVES

- Wear gloves when contact with blood or potentially infectious material is anticipated
- **If in doubt, wear gloves**
- Check gloves before use for any holes, tears, or cracks
- Remove contaminated gloves prior to leaving work area
- Always perform hand hygiene after removing gloves
- Never reuse disposable gloves
- Do not wash gloves between uses
- All staff should have gloves in your room. Extra gloves are available from the school nurse



GLOVE REMOVAL

- Never touch the outside of the glove with bare skin
- Grasp outside edge near wrist
- Peel away from hand turning inside out
- Hold in opposite gloved hand. Slide ungloved finger under the wrist of the remaining glove; be careful not to touch the outside of the glove
- Peel off from the inside, creating a bag for both gloves
- Discard gloves in waste container
- Always wash hands after glove removal as soon as possible

PROPER CLEANUP

- All surfaces and equipment that comes in contact with blood or other body fluids must be decontaminated with an appropriate cleaning solution
- EPA-registered disinfectants for HIV and HBV meet the requirement in the OSHA Standard or a solution of household bleach diluted between 1:10 and 1:100 with water is also acceptable for the cleanup of contaminated items or surfaces.
- Always wear PPE as appropriate
- Never pick up broken glass with bare hands
- Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are discouraged in work areas where there is a reasonable likelihood of BBP exposure



DISPOSAL OF WASTE

- All used and contaminated supplies including gloves and other barriers can be discarded in the regular plastic-lined garbage unless blood is discharged when compressed
- Barrier items saturated with blood should be disposed in a red biohazard bag (available from the school nurse)
- Syringes, needles, and other sharp objects should be discarded in puncture-proof containers

CARE OF STUDENTS



- When possible, students should be encouraged to take care of their own injuries
- Students can wash cuts and apply band-aids
- Students should be encouraged to apply pressure with their own hand or tissue over a bloody nose or wound
- If you must assist, always provide a barrier between your skin and the blood of others- gloves, paper towels, anything available
- Always stop and think of appropriate measures to take to protect yourself

CONCLUSION

- Remember that most school staff are not at high risk of exposure
- Most exposures do not result in infection
- Washing hands is the best prevention



BBP STANDARD FACT SHEET

- Click on the following link to access your copy of OSHA's Bloodborne Pathogens Standard
- http://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact01.pdf

QUESTIONS

The OSHA's Bloodborne Pathogens Standard requires that all participants are given the opportunity to ask questions. If you have questions, it is your responsibility to contact a school nurse by calling any of the Western Dubuque Community School District schools.

QUIZ

1. True False HIV is the only infectious disease carried by the blood that you should be concerned with.
2. True False Only inner city children are infected with HIV or Hepatitis viruses.
3. True False Hepatitis B can severely damage your liver, leading to cirrhosis and death.
4. True False HBV can survive on environmental surfaces dried and at room temperature for at least a week.
5. True False Universal Precautions requires that you consider every person, all blood and most body fluids to be potentially infectious.
6. True False You only need to wash your hands at the end of each work day.
7. True False You must use appropriate personal protective equipment each time you perform a task involving potentially infectious material.
8. True False Always wear gloves and use a broom and dustpan to pick up glass and sharp objects.
9. True False A bleach to water solution may not be used to disinfect equipment and working surfaces.
10. True False Your school system will create and make available an Exposure Control Plan.

ANSWERS

1. **False**-Pathogens of concern include, but are not limited to, hepatitis B, hepatitis C, and human immunodeficiency virus.
2. **False**-Anyone can be a potential carrier of HIV and the Hepatitis viruses.
3. **True**- Chronic Hepatitis B is a serious disease that can result in long-term health problems, including liver damage, liver failure leading to cirrhosis, liver cancer, or even death.
4. **True**- Hepatitis B virus can survive outside the body at least 7 days. During that time, the virus can still cause infection if it enters the body of a person who is not infected.
5. **True**-Universal precautions means that all human blood and other potentially infectious materials (OPIM) should be considered infectious, regardless of the perceived status of the source individual.
6. **False**-Proper hand hygiene is the most effective way to prevent the spread of infection. Wash hands when they are visibly dirty or soiled with blood or other body fluids. Wash hands whether gloves are worn or not and after removal of gloves. If hands become soiled with blood or body fluids, wash immediately before touching anything else.
7. **True**-The type of PPE appropriate for your job varies with the task and the degree of exposure you anticipate.
8. **True**-Never pick up broken glass with bare hands.
9. **False**-EPA-registered disinfectants for HIV and HBV meet the requirement in the OSHA Standard or a solution of household bleach diluted between 1:10 and 1:100 with water is also acceptable for the cleanup of contaminated items or surfaces.
10. **True**-The Exposure Control Plan is required by OSHA standard 29 CFR 1010.1030. A copy can be obtained by contacting the school nurse.

CERTIFICATE

Remember: you need to print off and fill in a Certificate of Completion.

REFERENCES

- Centers for Disease Control and Prevention <http://www.cdc.gov>
- Central Springs Bloodborne Pathogens and Personal Protection Training for School Staff
- Coastal Training Communications Corp
- Dubuque Community Schools Bloodborne Pathogens Training for Staff
- OSHA BBP Safety & Health Topics
<http://www.osha.gov/SLTC/bloodbornepathogens/index.html>