

PDF: Bloodborne Pathogens

Not every school employee is occupationally exposed to bloodborne pathogens. It is still important for all employees to understand the dangers of infection to these pathogens and safe practices to minimize their risk. It is recommended that all employees review this course yearly.

This training is REQUIRED by OSHA guidelines that all employees in a High Risk position complete this course yearly. This course must be completed before the tenth (10th) working day of each school year or the tenth (10th) working day of employment for new employees hired after the beginning of the school year.

For employees required (High Risk) to complete this course yearly:

After viewing the sessions, you must meet with your school nurse for review. Please ask questions and clarify information pertaining to bloodborne pathogen procedures during the meeting with the school nurse. Prior to the meeting, print and review the Training Acknowledgement Form (Session 9); take the form to the meeting with the school nurse.

Each school has an Exposure Control Plan in the school office, teachers lounge, and school nurse office for employee reference. Your school nurse is available for questions. Click the links below to begin the training. These links are repeated at the bottom of each information page for easy navigation.

Bloodborne Pathogen training sessions

— Session1

Bloodborne Pathogens:

Bloodborne pathogens are pathogenic microorganisms such as viruses or bacteria which are carried in the blood and body fluids and can cause disease in people. There are many different bloodborne pathogens such as syphilis, but the Hepatitis B Virus (HBV), Hepatitis C Virus (HCV)

and the Human Immunodeficiency Virus (HIV) are the three viruses that pose the greatest concern to people. These diseases are specifically addressed by the OSHA Bloodborne Pathogen standard.

Hepatitis B Virus (HBV)

"Hepatitis" means "inflammation of the liver." Hepatitis B is a virus that can infect the liver. This inflammation can lead to more serious conditions such as chronic liver disease, cancer, or death. More than 5,000 people die annually from HBV-related liver disease.

Symptoms may include fatigue, abdominal pain, loss of appetite, nausea or vomiting. Symptoms of jaundice (a distinct yellowing of the skin and eyes) and darkened urine will often occur as the disease progresses. However, half of those infected show no symptoms. Others may show symptoms as soon as 2 weeks or as long as 6-9 months after infection.

Hepatitis B is the most easily transmitted bloodborne pathogen. It is transmitted primarily through "blood to blood" contact. The only way to confirm it is by blood test. There is no cure or specific treatment for HBV, but fortunately there is an effective vaccine.

Hepatitis C Virus (HCV)

The Hepatitis C Virus (HCV) can also cause a liver infection. It is estimated that 3.9 million (1.8%) Americans have been infected with HCV. Each year, approximately 10,000 people die from HCV related infections: twice the number of those with Hepatitis B.

Symptoms are frequently non-specific, but may include jaundice, abdominal pain, fatigue, dark urine, loss of appetite or nausea. Chronic effects include cirrhosis of the liver and liver cancer. It is now the number one cause for liver transplants in the United States. There is no vaccine for HCV, but there are anti-viral drugs that are used for those who have contracted the disease.

Human Immunodeficiency Virus (HIV)

Human Immunodeficiency Virus (HIV) attacks the body's immune system, weakening it so it can't fight other deadly diseases. Approximately 800,000 to 900,000 people in the United States are HIV positive. These numbers could be higher, as many people with HIV appear healthy and lead normal lives for years.

The HIV virus is very fragile and will not survive long outside the human body. It is primarily a concern to employees who provide first aid in situations involving fresh blood. It is estimated that there is only a 0.4% chance of contracting HIV in the workplace environment. However, because it is such a devastating disease, all precautions against exposure should be taken.

Symptoms of HIV infection can vary and occur in three stages:

1. **First stage:** occurs upon infection with HIV and may last for many years. During this period, the person may show few or no signs of illness
2. **Second stage:** an individual may begin to suffer symptoms of weakness, fever, sore throat, nausea, headaches, diarrhea, weight loss, swollen lymph nodes, and white coating of the tongue. During this stage the body's immune system becomes weakened. The second stage is believed to eventually lead to Acquired Immunodeficiency Syndrome (AIDS).
3. **Third (final) stage:** the body becomes unable to fight life-threatening disease and infections. While treatment for it is improving, there is no vaccine for HIV or a cure for AIDS. It is a fatal disease.

+ Session 2

Transmission of Bloodborne Pathogens

To be exposed to a bloodborne pathogen such as Hepatitis B, Hepatitis C and HIV, infected blood must get into your bloodstream. The majority of cases in our society are transmitted by:

- sharing contaminated needles to inject drugs
- through sexual contact with an infected partner
- from infected mother to child before or during birth

Some cases are transmitted through other means. In the workplace, you can be exposed to Hepatitis B, Hepatitis C and HIV by coming in contact with contaminated blood. This can happen when you directly touch contaminated blood while performing first aid or when you touch an object or surface contaminated with blood and then transfer the virus to your mouth, eyes, nose or non-intact skin. Remember the virus must get into your bloodstream for you to get sick.

Feces, urine, vomit, nasal secretions, sputum, sweat, tears and saliva are not considered infectious unless they contain visible blood. They can be causes of other diseases such as colds.

You cannot become infected with these viruses through casual contact such as coughing, sneezing, kiss on the cheek, a hug, water fountains, or food.

+ Session 3

Recognizing and Eliminating Bloodborne Pathogen Exposures

While dealing with blood in the school setting, you may be exposed to HIV, Hepatitis B and Hepatitis C. Although your risk is low, you owe it to your students, co-workers, and yourself to know how to safely handle blood.

Knowing these steps will help you eliminate exposures:

1. Know the Exposure Control Plan. This plan has been designed to protect employees who must deal with blood or body fluids. It is based on the guidelines for workplace safety according to OSHA standards.
2. Follow universal precautions and always be prepared for an emergency. Have Personal Protective Equipment (PPE) with you at all times. Although you may instinctively want to help a student or co-worker, make sure that you first protect yourself properly.
3. Know how to properly discard bloody materials and disinfect contaminated surfaces. The Hepatitis B virus is able to survive at room temperature on a dry surface for at least a week. Refer to the Environmental Issues section for further information.
4. Vaccination. If you are not eligible for the Hepatitis B vaccine through your employer (see Vaccine Information), speak with your physician with regards to obtaining the vaccine. The Hepatitis B Vaccine does not protect against Hepatitis A or C.
5. Practice good handwashing techniques. This is the most important defense against the spread of disease.

Some examples of situations where you may be at risk for BBP exposures:

- first aid due to accidental injuries involving blood
- athletic injuries involving blood
- assisting students who use syringes or needles
- bloody noses
- assisting with cleaning after a blood or body fluid spill
- human bites that break the skin

- performing invasive procedures on a student
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+ Session 4

Personal Protective Equipment (PPE)

Engineering Controls

Work Practices

Universal Precautions

An approach to infection control used to protect employees from exposure to all human blood and other potentially infectious materials.

- treat all human blood and body fluids as if they are infectious
- observe universal precautions in all situations when there is a potential for contact with blood or other potentially infectious materials

Engineering Controls

(Physical or mechanical systems that eliminate hazards at their source)

- shall be used to eliminate or minimize employee exposure
- continuous monitoring of the controls with improvement as needed

Work Practice Controls

(Reduce the potential for exposure by altering how a task is performed)

Examples:

- Handwashing
- Disposal of contaminated sharps
- No eating/drinking in work areas
- Disposal of contaminated materials

Handwashing

- hand washing facilities should be readily accessible
- antiseptic hand cleanser can be used if facilities are not accessible - hand washing with soap and water should be done as soon as possible
- wash hands immediately after removing gloves or other Personal Protective Equipment (PPE)
- if skin or mucous membranes come into contact with potentially infectious materials, the area should be washed/flushed as soon as possible

Handwashing Procedure

1. Hands should be placed under running water
2. Apply Soap
3. Scrub ALL surfaces of the hands & wrists vigorously (Pay special attention to the areas between fingers)
4. Rinse the hands thoroughly & dry with a paper towel
5. Turn the faucet off with the paper towel

Click here (<http://iss.schoolwires.com/site/Default.aspx?PageID=1804>) to watch a video of the correct way to wash your hands

Disposal of Contaminated Sharps

- needles/sharps should not be bent or recapped; do not break the contaminated needle
- sharps shall be placed immediately in a puncture resistant, leak-proof, properly labeled container (*do not overfill container*)
- the containers will be provided by the school system
- when container is full and properly sealed, it can be disposed of in regular trash

These activities are **PROHIBITED** in work areas (*i.e. medication rooms, first aid rooms, toileting areas, etc.*) where there is a potential for contamination with blood or body fluids.

EATING

DRINKING

SMOKING

HANDLING CONTACT LENS

APPLYING COSMETICS OR LIP BALM

Personal Protective Equipment (PPE)

The school system provides equipment to protect you against exposure to potentially contaminated materials. Some examples are:

- GLOVES
- GOWNS/APRONS
- FACE SHIELDS
- EYE PROTECTION
- RESUSITATION DEVICES

All personal protective equipment should be:

- removed before leaving the workplace
- disposed of in an appropriately designated area, after removal
- removed as soon as possible if your clothing becomes saturated with blood or body fluids

Gloves

- wear gloves when it is possible that your hands may come into contact with blood or body fluids or if you have cuts, scratches, or other breaks in the skin
- the gloves are single use; do not wash or reuse
- gloves should be removed if they become torn or damaged

Click here (<http://iss.schoolwires.com/site/Default.aspx?PageID=1799>) to watch a video of the proper procedure to put on and remove your gloves.

Masks, Eye Protection, Face Shields

Use whenever splashes, sprays, spatters or droplets of blood or other body fluids may contaminate your eyes, nose or mouth.

Click here (<http://iss.schoolwires.com/site/Default.aspx?PageID=1807>)

(<http://iss.schoolwires.com/site/Default.aspx?PageID=1807>)to watch a video on how to put on a mask.

Gowns and Aprons

Gowns and aprons should be worn when splashes, sprays, spatters, or droplets of blood may contaminate your clothing.

+ Session 5

Housekeeping/Environmental Issues

Housekeeping/custodial responsibilities include the major tasks of cleaning and disposal of potentially infectious waste. All equipment and work surfaces shall be cleaned and decontaminated after a blood exposure or contamination from potentially infectious materials. To minimize exposures the following housekeeping measures should be implemented:

- Call for custodial staff to clean any equipment or surfaces contaminated with blood or body fluids.
- Broken glass should always be treated as contaminated and never be picked up with unprotected hands. Always use mechanical means to pick up glass such as a broom and dustpan. Call your custodial staff for assistance and clear the area of students.
- Never push or compact trash with your hands. Hold it away from you and shake down
- Contaminated laundry should be placed in a leak proof container. Only school personnel shall wash contaminated laundry.
- Place items, heavily soiled with blood, in a red bio-hazard bag. Immediately notify your custodian when potentially infectious trash needs to be disposed.
- Regular inspection and disinfection of reusable containers.
- Call for cleanup of areas which have been contaminated or are suspected to be contaminated.

Only school-approved disinfectants are to be used.

DO NOT BRING CLEANERS FROM HOME.

+ Session 6

What To Do If An Exposure Occurs

Iredell-Statesville Schools shall make post exposure evaluation and follow-up, including prophylaxis, available to all employees who have an exposure incident.

Definitions:

- Exposure incident: coming into contact with blood or other potentially infectious materials via the eyes, mouth, mucous membranes, non-intact skin, or parenterally during the performance of an employee's duties
- "Non-intact" skin: includes skin with dermatitis, hangnails, cuts, abrasions, chafing, acne, etc.
- Parenteral: piercing mucous membranes or the skin barrier through events such as needle sticks, human bites, cuts, and abrasions

In the event of an exposure, employees are required to:

- Remove contaminated Personal Protective Equipment and place it in a biohazard labeled bag.
- Wash exposed areas (hands and other skin surfaces) with soap and water. Immediately flush exposed mucous membranes with water and if eyes are exposed, flush with large amounts of water.
- Immediately report the exposure incident to your immediate supervisor and bookkeeper.
- If there is a blood spill, immediately arrange for clean-up and decontamination with an EFA approved disinfectant by a custodian trained to use it.
- Seek medical care if first aid is needed or if signs of infection, such as redness or swelling occur. This will be considered Worker's Compensation and the contracted medical provider must be used; report to the bookkeeper for the appropriate paperwork and procedure. If an exposure occurs after hours, contact your school administrator for instructions.
- Complete the Exposure Incident Forms and return them to your supervisor and bookkeeper immediately; no more than 24 hours after exposure.
- Follow procedures for follow-up as outlined in the Exposure Control Plan for the Iredell-Statesville School System.

To review the complete standards you may go to the OSHA web site

(http://www.osha.gov/pls/oshaweb/owasrch.search_form?

[p_doc_type=STANDARDS&p_toc_level=0&p_keyvalue=](http://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=STANDARDS&p_toc_level=0&p_keyvalue=)) or it can be found in the Iredell-

Statesville Schools Exposure Control Plan available in each school. Copies are available at your request.

Forms To Be Completed After an Exposure Incident

- Instructions (For Possible Exposure to Blood)
(http://iss.schoolwires.com/cms/lib/NC01000579/Centricity/Domain/111/Bloodborne_Pathogens/Instruction_revised.pdf)
- Bloodborne Pathogen Exposure Incident Report
(http://iss.schoolwires.com/cms/lib/NC01000579/Centricity/Domain/111/Bloodborne_Pathogens)
- Healthcare Professional's Written Opinion
(http://iss.schoolwires.com/cms/lib/NC01000579/Centricity/Domain/111/Bloodborne_Pathogens)
- Waiver to Submit Follow-up Procedure After Possible Exposure to Infectious Disease
(http://iss.schoolwires.com/cms/lib/NC01000579/Centricity/Domain/111/Bloodborne_Pathogen_)

The forms listed above are considered medical records and should be forwarded to the Human Resources department. They are confidential and must be kept for the duration of the employee's employment plus 30 years.

Note: These forms are found in the Iredell-Statesville Schools Exposure Control Plan and can be obtained from the bookkeeper.

+ Session 7

Hepatitis B Vaccine

Hepatitis B is a serious disease. The Hepatitis B virus can cause short-term and long-term illness. The Hepatitis B vaccine can prevent Hepatitis B. A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of Hepatitis B vaccine causing serious harm is extremely small. Most people who receive the Hepatitis B vaccine do not experience adverse reactions. A Vaccine Information Statement is given to the employee at the time the vaccine is given. The information may be accessed at the CDC web site (<http://www.cdc.gov/nip/publications/VIS/vis-hep-b.pdf>). The Hepatitis B vaccine is given in three separate doses as an injection in the muscle of the upper arm, over a period of six months. The Hepatitis B vaccine series is given only once, unless a booster is recommended by a physician.

The Hepatitis B vaccination series is available free of charge to all employees who are considered at risk or on a post-exposure basis (an employee who may have had an occupational exposure to blood and/or body fluids).

At Risk Employees

At risk employees perform invasive tasks and procedures on a daily basis. Those tasks and procedures could result in an exposure from splashes with blood or body fluids through mucous membranes or non-intact skin. These tasks require appropriate protective measures for employees who perform them.

The following positions are considered At Risk Employees:

- Athletic Trainers
- Nurses
- Custodians
- Staff who perform invasive procedures on a daily basis
- Personnel designated to administer first-aid for entire school

Every employee in the above classifications should complete a Hepatitis B Vaccine Acceptance Form or Declination Form when hired. This form is to be sent to the school nurse immediately after receiving the required bloodborne pathogen training. This training is required by law, and must be completed within 10 working days of beginning the work assignment. The Acceptance and Declination forms are available from your school nurse or bookkeeper.

The Hepatitis B vaccination is available to any employee covered by the standard, even if the employee initially declined the series, but at a later date decides to accept the vaccination.

If you are an at risk employee and an exposure occurs, follow the steps outlined in the Local Policy/Procedure section of this text or refer to your school's Bloodborne Pathogen Manual.

+ Session 8

Update

Staphylococcus aureus is a bacteria commonly referred to as staph. It is found on the skin, usually inside the nose and in the armpit, groin, and genital area. There can be a colonization of staph present in a healthy individual and it does not cause an illness. In most cases with colonization, there are no symptoms, but if any problems occur, they are generally minor skin irritations such as pimples or boils. In some instances, staph can create a more serious infection.

One such situation is Methicillin-resistant Staphylococcus Aureus (MRSA). MRSA is resistant to methicillin and methicillin related antibiotics. There are antibiotics that can treat MRSA, but the treatment is more costly and generally has a longer course of treatment.

MRSA must have an entry route into the skin through a cut or abrasion. If this occurs the symptoms include:

- Boils or blisters that have redness, warmth, swelling and tenderness of the surrounding skin. It has the general appearance of a spider bite.
- Some people experience minor flu-like symptoms with fever and chills.

MRSA is spread by close contact with infected people. Drainage from a sore with MRSA is highly infectious. When exposed to a person with draining sores infected with MRSA, it is important to:

- Wash your hands and any affected skin thoroughly with soap and water
- Make sure any broken skin is kept clean and covered with a bandage until it is healed
- Do not share personal products such as razors, towels, washcloths, clothing, etc.
- Make sure that objects and surfaces that are shared with other individuals (i.e. athletic equipment) are cleaned before and after use.

If you suspect that you may be infected with MRSA, see your health care provider. To diagnose a skin infection, a sample of the area is taken usually with a swab and is cultured in a lab. This helps to know which bacterium is involved and the most appropriate antibiotic for treatment.

+ Session 9

Training Acknowledgement Form

For employees required (High Risk) to complete this course yearly:

After viewing the sessions, you must meet with your school nurse for review. Please ask questions and clarify information pertaining to bloodborne pathogen procedures during the meeting with the school nurse. Prior to the meeting, print and review the Training Acknowledgement Form.

Please take the form to the meeting with the school nurse

 Acknowledgment Form

(https://docs.google.com/forms/d/e/1FAIpQLSfh5Mn3LsAKWJ_Ye_05-6Z675GTcLSRC8A_h2xsh_jNkhGslw/viewform)
