

# BLOOD BORNE PATHOGENS

## Online Training for Mayfield Independent School District Employees

The Mayfield Independent School District requires employees to receive annual training for Blood Borne Pathogens. This online training module is designed as an **annual renewal course**.

This training module is designed to provide a basic understanding of blood borne pathogens, common modes of their transmission, methods of prevention, and other pertinent information. This program is designed to meet the requirements of the Occupational Exposure to Blood Borne Pathogens (OSHA's) Blood Borne Pathogen Standard, **1910.1030**. If you have any questions in regard to the information in this training, contact your school nurse.

### Blood Borne Pathogen (BBP)

A blood borne pathogen is defined as an organism found in human blood or other infected body fluids that may cause disease in humans. The three main blood borne pathogens that are the focus of this training are:

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

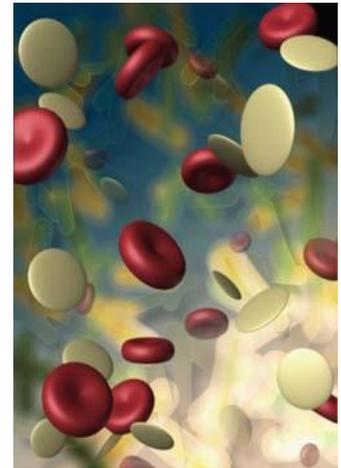
### Hepatitis B (HBV)

Hepatitis B is a virus that attacks the liver. It is highly infectious. Hepatitis B is transmitted primarily through "blood to blood" contact. Hepatitis B initially causes inflammation of the liver, but it can lead to more serious conditions such as cirrhosis and liver cancer.

Most people develop antibodies and recover from Hepatitis B infection, but some become chronically infected. There is no cure or specific treatment for Hepatitis B. There are many different kinds of hepatitis, so infection with HBV will not stop someone from getting another type. According to the Centers for Disease Control and Prevention (CDC), there were 46,000 new cases of HBV in 2006.

Of the three main blood borne pathogens, HBV poses the greatest risk for transmission. Hepatitis B can live in dried blood for up to seven days. **HBV is the only blood borne pathogen of the three for which there is a vaccine.**

Symptoms of HBV are very much like a mild "flu." In the beginning a person may have fatigue, possible stomach pain, loss of appetite, and even nausea. As the disease continues to develop, jaundice (a yellowing of the skin and eyes), and darkened urine will often occur. However, some people infected with HBV will often show no symptoms for some time. After exposure, symptoms can occur as early as 2 weeks or as long as 1 to 9 months later.



## Human Immunodeficiency Virus (HIV)

**HIV** is a virus that attacks the immune system causing it to break down. The symptoms of HIV infection vary widely from person to person. As HIV attacks the immune system, a person can develop opportunistic infections. These are infections that a person with a healthy immune system would usually not develop. **AIDS**, or acquired immune deficiency syndrome, is caused by a human immunodeficiency virus, or HIV. Once a person is infected with HIV, it may be years before they actually develop AIDS. Once a person is infected with HIV they are able to transmit the virus even though they may not have any symptoms.

The CDC reports an estimated one million people in the US are currently infected with HIV. Half of the new infections in the U.S. occur in people 25 years old or less.

The symptoms of HIV can vary, but often include weakness, fever, sore throat, nausea, headaches, diarrhea, a white coating on the tongue, weight loss, and swollen lymph glands.

## Hepatitis C Virus (HCV)

Hepatitis C Virus (HCV) also causes a serious liver disease with symptoms similar to Hepatitis B infection. However these two diseases have important differences. HCV represents the most common chronic blood borne pathogen in the United States. The CDC reports that 75-85% of those infected with HCV become **chronically** infected compared to HBV with only 10% **chronically** infected. Up to 80% of people infected with HCV have no symptoms compared to 50% of those infected with HBV. CDC reports 4.1 million Americans have been infected with HCV with 3.2 million chronically infected.

There currently is no cure and no vaccine for HCV. Newly approved antiviral drugs have been effective in some people. Transmission occurs when blood or body fluids from an infected person enters the body of a person who is not infected.

Symptoms of HCV include jaundice, fatigue, dark urine, abdominal pain, loss of appetite, and nausea.

## Modes of Transmission

In order to be exposed to a blood borne pathogen such as Hepatitis B, Hepatitis C, and HIV, infected blood must get into your bloodstream. The majority of cases are transmitted by:

- “Blood to Blood” contact
- sharing contaminated needles to inject drugs
- through sexual contact with an infected partner
- mother to child before or during childbirth
- accidental exposure (for example, in the workplace)

You cannot become infected with these viruses through casual contact, coughing, sneezing, a kiss on the cheek, a hug, or from drinking fountains or food. Feces, urine, vomit, nasal secretions, sputum, sweat, tears, and saliva are not included as being potentially infectious unless they contain **visible** blood.

## How Am I Exposed at Work?

Any time there is “blood to blood” contact with infected blood or other potentially infectious materials, there is potential for transmission.

**Direct Exposure**—pathogen enters your bloodstream through an open cut, abrasion, a sore, area of broken skin such as blisters or sunburn, mucous membranes of the eyes, nose, or mouth.

**Indirect Exposure**—touch contaminated object or surface and transfer the infection to your nose, eyes, or broken skin.

**Accidental injury**—you accidentally injure yourself with a contaminated sharp object such as broken glass, scissors, or needle.

**Remember the virus must enter your bloodstream for you to get sick!!**



## Universal Precautions

A universal precaution is a method for preventing the transmission of blood borne infections. It is based on the concept that control measures should be taken in all situations where exposure to blood borne infection is possible.

- Treat all human blood or any body fluid containing blood as if they are known to be infectious.
- Treat all used needles and other sharp objects as if they are contaminated. **When in doubt use protective equipment (PPE).**

## PPE—Personal Protective Equipment



- Gloves
- Gowns/Aprons
- Face shields
- Eye protection
- Resuscitation devices

Anyone who is in contact with blood or body fluids with visible blood should use PPE.

PPE should always be changed after each student contact.

**Always wash your hands after removing gloves.**

## Examples When PPE Should Be Used in the School Setting:

- Assisting with the care of scrapes or cuts
- Assisting with the care of nosebleeds
- Assisting with the care of loose or lost teeth
- Cleaning up of body fluids
- Injections
- Glucometer checks
- Catheterizations
- Diaper changing

## Disposal of Contaminated Sharps

Needles/sharps should **not be bent or recapped**; do not break the contaminated needle.

Sharps should be placed immediately in puncture resistant, leak proof, properly labeled container (**do not overfill container**).

The containers will be provided by the school system.



## Disposal of Contaminated Materials

Custodial responsibilities include the major task of cleaning potentially infectious waste. All equipment and work surfaces shall be cleaned and decontaminated of blood or from potentially contaminated 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.

Place item, heavily soiled with blood, in a plastic trash bag. Immediately notify your custodian when potentially infectious trash needs to be disposed.

Regular inspection and disinfection of reusable containers.

**Only school-approved disinfectants are to be used.**

**DO NOT BRING CLEANERS FROM HOME.**

**No Eating/Drinking or Applying of Cosmetics in Work Areas**

**EATING • DRINKING • HANDLING CONTACT LENS • APPLYING COSMETICS OR LIP BALM ARE PROHIBITED IN WORK AREAS WHERE THERE IS A POTENTIAL FOR CONTAMINATION WITH BLOOD OR BODY FLUIDS (for example, toileting areas)**

## Exposure Procedures

1. Wash the exposed area thoroughly with soap and running water. Use non-abrasive, antibacterial soap if possible.

*If blood is splashed in the eye or mucous membrane, flush the affected area with running water for at least 15 minutes.*

If clothing is soiled, remove immediately and place in a plastic bag.

2. Report the exposure to your supervisor/school administrator immediately for evaluation.
3. Follow the Mayfield Independent Public Schools exposure plan.

## Hepatitis B Vaccination

This immunization is offered in a 3 shot vaccine series. It is considered a lifetime injection series. You may obtain these injections from the Graves County Health Department or your family doctor. The series is covered under your state insurance FREE to you. If you have had part of the series of 3 shots, you will **not** need to start over.

All employees are encouraged to receive the vaccinations. However, it is recommended for employees who hold **at-risk positions**, such as:

- Bus Drivers
- Coaches/Trainers
- Custodians
- Teachers
- Instructional Assistants
- P.E. Teachers/Assistants
- Pre-K Teachers/Assistants
- Secretaries

Hepatitis B is the **only** blood borne illness with a vaccination available for protection.