

## Deer Park School District 414

### BLOODBORNE PATHOGENS REFRESHER/UPDATE 2014-15



The bloodborne pathogen standard was put into effect by OSHA in Washington State in May 1992 (WAC 296-62, Occupational Health Standards). The purpose of this requirement is to reduce the occurrence of illness spread by blood/body fluids by protecting employees against exposure.

- ✦ Bloodborne pathogens are infectious organisms which are carried in the blood or other body fluids, i.e., HIV, Hepatitis B and Hepatitis C.
- ✦ Standard Precautions guidelines have a two-tiered approach offering infection control precautions that are standard for all individuals and include bloodborne, airborne, and epidemiologically important pathogens. Standard Precautions refers to the use of barriers or protective measures when dealing with the following:
  - 1) Blood (lacerations, nose bleeds, abrasions, menstrual flow)
  - 2) All body fluids, secretions, and excretions except sweat, regardless of whether they contain visible blood (urine, emesis, feces)
  - 3) Non-intact skin (cuts, scrapes, dermatitis)
  - 4) Mucous membranes (oral/nasal secretions)
- ✦ Standard Precautions mandate **wearing gloves when handling blood or body fluids**, disposing of materials used to clean up blood or body fluids in plastic bags, disposing of used sharps in designated sharps containers, and **THOROUGHLY WASHING HANDS** as soon as possible after any encounter with blood or body fluids.
- ✦ An exposure incident means a specific eye, mouth, other mucous membrane, non-intact skin, parenteral (through the skin or mucous membrane) contact with blood or other potentially infectious body fluids that result from the performance of an employee's duties.
- ✦ If direct skin contact with blood/body fluids occurs, wash hands and/or other affected skin areas thoroughly with soap, friction and running water as soon as feasible. If direct mucous membrane contact with blood/body fluids occurs, flush affected mucous membranes thoroughly with copious amounts of running water as soon as possible. Then wash the area thoroughly with soap and running water.
- ✦ If direct contact with contaminated blood/body fluids occurs, **contact the site manager and the District Nurse to report the contact as a possible exposure incident.** You will be provided with the necessary forms to be completed by yourself and your licensed health care provider (Exposure Procedures).
- ✦ Hepatitis B vaccinations are offered to all Category One employees including school nurses, teachers of the developmentally disabled, special education teachers, pre-school special education teachers, bus drivers of the developmentally disabled, speech/language pathologists, communication assistants to SLP, child care providers, occupational therapists, certified occupational therapy assistants, physical therapists, physical therapy assistants, traffic safety education teachers and maintenance personnel. The vaccinations are available at most health clinics. See the Human Resources Director to obtain the appropriate paperwork **prior** to getting your vaccination.
- ✦ Requirements for confidentiality regarding HIV/AIDS and Hepatitis B & C: No person may disclose or be compelled to disclose the identity of any person who has been investigated, considered or requested a test or treatment for any sexually transmitted disease. Sharing of ANY information about a person's HIV/HBV status may occur only following written permission. **The fine for a breach in confidentiality is \$10,000.00!**
- ✦ A detailed description of Universal/Standard Precautions can be found in the Deer Park School District Bloodborne Pathogens Exposure Control Plan. You may request a copy from the Human Resources Director.

## HIV AND ITS TRANSMISSION, TESTS & TREATMENT

HIV is the human immunodeficiency virus. It is the virus that can lead to Acquired Immune Deficiency Syndrome, or AIDS. AIDS is the most serious stage of Human Immunodeficiency Virus (HIV) infection. It results from the destruction of the infected person's immune system. CD4 cells are a type of white blood cell that fights infections. When HIV enters a person's CD4 cells, it begins a replication process which destroys the CD4 cells and weakens the immune system, making it hard for the body to fight infections and cancer.

HIV is spread through contact with an HIV infected person's blood and/or sexual fluids and breast milk. Usually the spread is by sexual contact or the sharing of needles, or less commonly, through blood transfusions. HIV may be transmitted from mother to baby before, during and/or after birth through breast feeding.

- ✚ ***There is no known risk of HIV transmission to co-workers, clients or consumers from contact in industries when routine standard precautions are followed. Contact with saliva, tears, sweat, urine, and feces have never been shown to result in the transmission of HIV.***
  
- ✚ **TYPES OF HIV TESTS:** Urine HIV-antibody test, oral mucosal transudate (oral fluid, not saliva) HIV-antibody test, rapid HIV-antibody test (EIA only), home HIV-antibody test, HIV-antibody blood test, plasma HIV RNA or proviral DNA blood test, HIV viral load test, and the FDA has approved the use of oral fluid samples with a rapid HIV diagnostic test kit that provides screening results in as little as 20 minutes when testing for HIV 1 and 2. Antigen Tests - These tests are not as common as antibody tests, but they can be used to diagnose HIV infection earlier—from 1-3 weeks after first infected with HIV. Antigen tests require a blood sample. PCR Test (*Polymerase chain reaction test*) - This test detects the genetic material of HIV itself, and can identify HIV in the blood within 2-3 weeks of infection.
  
- ✚ **TEST RESULTS: Negative** – one of two possibilities; either the person is not infected or they very recently became infected. **Positive** – the person is infected and is able to spread the virus to others. **Indeterminate** – several possibilities: the person is newly infected but does not have enough antibodies to show a positive test result, the person has had another condition which created a reaction to the test, retesting is recommended with about a 20% likelihood that the person will test positive in the general population. (A **window period** is the time from the point of infection to the point when the virus shows up on a test. The window period for antibody testing is three months and for viral test is 11 days.)

Ongoing HIV replication leads to immune system damage and progression to AIDS. HIV infection is always harmful and true long-term survival free of clinically significant immune dysfunction is unusual.

**DRUG THERAPY:** Employees exposed to HIV positive blood through an open wound or needle stick will be offered therapy (including medication as well as counseling). Post exposure medicines, if taken within 72 hours, may reduce the risk of acquiring HIV by 80%.

**TREATMENT:** Anti-HIV medications are used to control the reproduction of the virus and to slow the progression of the disease. Anti-HIV medications are called antiretroviral medications. There are five classes of FDA approved antiretroviral medications: NRTIs, NtRTIs, NNRTIs, PIs and fusion inhibitors. The recommended treatment for HIV is a combination of three or more medications in a regimen called Highly Active Antiretroviral Therapy (HAART). Each drug has its own dosing requirements (frequency, with/without food, etc.). Many drug regimens are very complicated and have negative side effects such as liver problems, diabetes, abnormal fat distribution, high cholesterol, pancreatitis, decreased bone density, nerve problems, and skin rashes and increased bleeding in hemophiliacs. Anti-retroviral therapy has been proven to slow disease progression and extend life.

In August 2007, the Food and Drug Administration approved a generic three-in-one AIDS treatment for use by children. It is the first of its kind for children under age 12.

**\*\*\*NEW\*\*\* PREVENTION:** What is PrEP?

PrEP is short for Pre-Exposure Prophylaxis. It is a new HIV prevention method in which people who do not have HIV take a daily pill to reduce their risk of becoming infected. When used consistently, PrEP has been shown to reduce the risk of HIV infection among adult men and women at very high risk for HIV infection through sexual activity or injecting drug use.

An antiretroviral drug prophylaxis to prevent mother-to-child HIV transmission for more than 660,000 HIV-positive pregnant women has allowed approximately 200,000 infants to be born HIV free.

**HIV medications when used properly can reduce a person's viral load to a level which is undetectable by laboratory testing. A person with an undetectable HIV viral load is still considered infectious for HIV. All people who test positive for HIV are counseled on lowering their risk for transmission to others.**

## **HIV/AIDS STATISTICS**

- ✦ According to the Center for Disease Control (CDC) in 2011, HIV/AIDS at the global level, the number of people living with HIV or AIDS is 34.2 million.
- ✦ Globally, in 2010, 1.8 million were killed by AIDS. Over 30 million have died since the first cases of AIDS were identified in 1981.
- ✦ The number of people newly infected worldwide with HIV in 2011 was estimated to be 2.5 million.
- ✦ Through 2010, 1,155,792 million people in the U.S. have been diagnosed with AIDS. In 2010, 47,500 new cases of HIV were diagnosed.
- ✦ An estimated 15,529 people with AIDS died in 2010, and nearly 636,048 people with AIDS in the U.S. have died since the epidemic began. \*Note: Death may be from any cause.
- ✦ According to the Washington State Department of Health, the number of people living with HIV/AIDS reported in Washington through December 31, 2012 was 11,462. As of 2012, there have been 7,568 deaths from HIV/AIDS.
- ✦ The cumulative number of people diagnosed with HIV/AIDS in Spokane County as of December 2012 was 794.

## **HEPATITIS UPDATE**

Hepatitis A is a liver disease caused by the Hepatitis A virus (HAV). HAV infection produces a self-limited disease that does not result in chronic infection or chronic liver disease. HAV infection is primarily transmitted by the fecal-oral route, by either person-to-person contact or through consumption of contaminated food or water. There were an estimated 17,000 new cases of acute HAV in the U.S. in 2010, with Washington state having 21 cases reported in 2010, with no new cases reported in Spokane County in 2011 or 2012. There is a vaccine available that is recommended for those living in or traveling to areas of high prevalence of HAV.

Hepatitis B is a serious liver infection caused by Hepatitis B virus (HBV). HBV infection can cause acute illness and lead to chronic or lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. HBV is transmitted through percutaneous (puncture through the skin) or mucosal contact with infectious blood or body fluids. About 30% of persons infected with HBV have no signs or symptoms while others may exhibit jaundice, fatigue, abdominal pain, among others. There were an estimated 1.25 million chronic HBV carriers of HBV in the U.S., with an estimated 38,000 new cases in 2010. In Washington state, there were 1,027 chronic cases reported in 2011 with 59 chronic cases reported in Spokane County in 2012. There is a vaccine available to prevent HBV and it is recommended for all infants and others at risk for HBV.

**\*Twinrix is a vaccine now available to everyone. It is a combination Hepatitis A/B vaccination given in a series of three shots.**

Hepatitis C is a liver disease caused by the Hepatitis C virus (HCV) that sometimes results in an acute illness, but most often becomes a silent, chronic infection that can lead to cirrhosis (scarring), liver failure, liver cancer, and death. Chronic HCV infection develops in a majority of HCV infected persons, most of who do not know they are infected since they may have no symptoms. HCV is spread by contact with the blood of an infected person. HCV can be spread sexually but this is rare. There is no vaccine for Hepatitis C. Following Universal/Standard Precautions is the best way to prevent contracting the disease. There are an estimated 3.2 million Americans infected with HCV. Approximately 12,000 people die every year from HCV related liver disease. The number of new cases has been dropping since the 1980s with approximately 17,000 new acute cases reported in 2010. In Washington, there were 6,091 chronic cases reported in 2011 and 617 chronic cases in Spokane County in 2012. Most infections are due to sharing drug-injection equipment with a HCV infected person. There is no vaccine available to prevent HCV.

Hepatitis D, also known as "delta hepatitis," is a defective virus that needs the Hepatitis B virus to exist. Hepatitis D virus (HDV) is found in the blood of persons infected with the virus. Because HDV cannot exist without HBV, a person will be protected against HDV if they have had the HBV vaccine.

Hepatitis E is a liver infection caused by the Hepatitis E virus (HEV) that usually results in a self-limited disease. HEV infection is primarily transmitted by the fecal-oral route, mostly through consumption of contaminated water. While rare in the United States, Hepatitis E is common in many parts of the world. There is currently no approved vaccine for HEV.

Risk of infection with HIV, HBV, HCV following a single needle stick or sharp instrument injury with contaminated blood:

HIV	0.3 ~ 0.4%	HBV	6.0 ~ 30%	HCV	0.5 ~ 2%
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## Reminder:

### Hand washing

#### What is the right way to wash your hands?

- Wet your hands with clean running water (warm or cold) and apply soap.
- Rub your hands together to make a lather and scrub them well; be sure to scrub the backs of your hands, between your fingers and under your nails.
- Continue rubbing your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
- Rinse your hands well under running water.
- Dry your hands using a clean towel or air dry.

Washing hands with soap and water is the best way to reduce the number of germs on them. If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol. Alcohol-based hand sanitizers can quickly reduce the number of germs on hands in some situations, but sanitizers do **not** eliminate all types of germs.

**Hand sanitizers are not effective when hands are visibly dirty.**

### Removing Gloves

Taking off medical exam gloves is a simple task but should be done carefully and properly to prevent contact with the bare hands and the outside of the contaminated glove. With one hand, grasp the cuff of the opposite glove and carefully pull the glove completely off the hand. This should turn the glove inside out. With the removed glove now in the gloved hand, wad the used glove up into a ball in the palm of the gloved hand, being careful not to touch anything with the unprotected hand. Use the index finger of the unprotected bare hand to slip underneath the cuff of the other glove and remove it by peeling it back off the hand carefully, not touching the outside. When you get this glove off it will act as a bag, holding the other glove. Discard these gloves in the proper receptacle and immediately wash hands thoroughly.

## Employee Statement of Acknowledgement Concerning

<p style="text-align: center;"><b>Universal/Standard Precautions Procedures For Protection against Bloodborne Diseases</b></p>
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Universal/Standard Precautions refers to a system of infectious disease control that assumes that every contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with infectious diseases.

The following are specific steps that must be taken for protection against contamination from infected blood or body fluids of another person or from injury by a contaminated sharp object:

- Wash hands frequently to reduce the risk of exposure to infectious diseases.
- Wear gloves if there is even a possibility you might have contact with another person's body fluids.
- After the removal of gloves or after exposure to blood or other potentially infectious materials, wash hands (or other affected areas) thoroughly with soap, friction and running water as soon as feasible. If direct mucous membrane contact occurs, flush affected mucous membranes with copious amounts of water.
- Wear gloves once and discard; do not attempt to wash and reuse.
- Clothing or supplies contaminated with body fluids should be placed in red bags or bags marked with a biohazard label and tied.
- Used needles or sharp instruments that have been contaminated with potentially infectious materials must be discarded in a biohazard infectious waste sharps container or an impenetrable container with a biohazard label.
- See individual building site managers for district specific procedures.
- If a possible exposure incident has occurred, contact the site manager and Human Services Executive Director as soon as possible.
- Assume all blood or body fluids are contaminated and potentially harmful to your health.

I have read and agree to abide by the Universal/Standard Precautions Procedures as outlined above and included in the 2013-14 Bloodborne Pathogens training update sheets I received. I understand that if I have any questions or concerns, I may contact my immediate supervisor or the Human Resources Director.

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**Printed Name of Employee**

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**Signature of Employee**

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**Date**

**The employee must keep pages 1-4 of the Bloodborne Pathogens Refresher Update for reference and return this signed document (page 5) to the Human Resources Director.**