



Bloodborne PATHOGENS



Employee Manual

UNIVERSAL Precautions



Employee Record

Record of Bloodborne Pathogens Information Received by the Employee

- I have received information on the Bloodborne Pathogens Standard.
- I have been informed of my rights and responsibilities as an employee under these regulations.
- I have been made aware of the availability of the personal protective equipment (gloves, etc) available to minimize exposure to possible bloodborne pathogens.
- I know who to contact for more information on bloodborne pathogens, who to contact and procedures to follow in case of an emergency.

Employee Signature _____ Date _____

Department(s) _____ District _____

Return to:

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Health/Safety/Risk Management serves over 50 schools districts in eight counties. We also assist colleges, universities and municipalities on a fee for service basis. We offer training courses to the public on asbestos handling, inspection and confined space entry.

INTRODUCTION



RULES

The Occupational Safety & Health Administration (OSHA) promulgated the Occupational Exposure to Bloodborne Pathogens Standard, 29 CFR 1910.1030. The objective of this regulation is to reduce exposure to blood and other potentially infectious materials (OPIM) in the workplace since exposure could result in the transmission of bloodborne pathogens. Training provides information on the bloodborne pathogens and their health effects, their modes of transmission, and the methods of reducing potential for exposure.

Essential for the implementation of the provisions of the standard is the use of Universal Precautions and putting in place the Exposure Control Plan. A summary of the Bloodborne Pathogens Standard is included in this booklet. A copy of the complete text of the regulation is available in the Exposure Control Plan and on request.

BLOODBORNE PATHOGENS



Bloodborne pathogens are pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

Hepatitis, meaning inflammation of the liver, can be caused by various viruses as well as chemical agents or obstruction. CDC estimates that injection drug use accounts for 60% of all new cases of hepatitis C and is a major risk factor for infection with hepatitis B virus.

HEPATITIS B:

Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure and death.

Hepatitis B vaccine is available for all age groups to prevent hepatitis B virus infection. In New York State, all students entering kindergarten and seventh grade are required to have this vaccine. Only the designated school employees listed in the Exposure Control Plan are offered this vaccine through the school district.

HEPATITIS C:

Hepatitis C is a disease of the liver caused by the hepatitis C virus (HCV). You may be at risk for hepatitis C and should contact your medical care provider for a blood test if you:

- were notified that you received blood from a donor who later tested positive for hepatitis C.
- have ever injected illegal drugs, even if you experimented a few times many years ago
- received a blood transfusion or solid organ transplant before July 1992
- received a blood product for clotting problems produced before 1987
- have ever been on long-term kidney dialysis
- have evidence of liver disease (e.g., persistently abnormal ALT levels)

Hepatitis C is serious for some persons, but not for others. Most persons who get hepatitis C carry the virus for the rest of their lives. Most of these people have some liver damage but many do not feel sick from the disease. Some persons with liver damage due to hepatitis C may develop cirrhosis (scarring) of the liver and liver failure, which may take many years to develop.

BLOODBORNE

PATHOGENS



HIV/AIDS:

AIDS is the stage when an HIV-infected person's immune system gets very weak. When this happens, other diseases and infections can enter the body. These "opportunistic" diseases cause the high fatality rates among AIDS patients.

The human immunodeficiency virus (HIV) is the virus that causes AIDS (Acquired Immune Deficiency Syndrome). People who have HIV in their bodies are said to have HIV infection or to be HIV-positive. HIV damages the body's immune system which normally protects the body from disease. HIV is a disease with many stages. An HIV-infected person can range from being health to being very sick.

Transmission of Bloodborne Pathogens

HIV, HBV and HCV are all bloodborne pathogens that can be transmitted by blood and by other potentially infectious materials (OPIM). OSHA defines OPIM as: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids where it is difficult or impossible to differentiate between body fluids are OPIM.

Transmission occurs when the blood, semen, vaginal fluids or breast milk (not for HCV) with the infectious virus from one person (source individual) is able to enter the bloodstream of another person (exposed individual) through an open wound, abraded skin, or mucous membranes. Possible ways in which transmission can occur are: needle sticks, sharing of needle/syringe by IV drug user, unprotected sexual intercourse, mother to baby, getting cut by a sharp object which is contaminated, or any situation where there is direct blood/OPIM to blood or mucous membrane contact. In the school setting, the potential for exposure probably occurs most often when a staff member is responding to an injury.



BLOODBORNE PATHOGENS

TRENDS & STATISTICS

HIV/AIDS

Unless otherwise noted, the following data is from the CDC HIV/AIDS Surveillance Report of 2005.

HIV Estimate

- At the end of 2003, and estimated 1,039,000 to 1,185,000 persons in the United States were living with HIV/AIDS, with 24-27% undiagnosed and unaware of their HIV infection.

AIDS Cases

- In 2005, the estimated number of diagnoses of AIDS in the United States and dependent areas was 45,669. Of these 44,198 were in the 50 states and District of Columbia and 1,096 were in the dependent areas.
- The cumulative estimated number of diagnoses AIDS through 2005 was 988,376. The estimated number of persons living with AIDS in the United States and dependent areas was 437,982.
- In 2005, the cumulative estimated number of deaths from AIDS in the United States and dependent areas was 17,011. The cumulative estimated number of deaths of persons with AIDS, through 2005, was 550,394.

Hepatitis B

- Number of new infections per year has declined from an average of 450,000 in the 1980's to about 60,000 in 2004.
- The highest disease rate occurs in 20-49 year olds.
- Greatest decline has happened among children and adolescents due to routine Hepatitis B vaccination.
- Estimated 1.25 million chronically infected Americans, of whom 20-30% acquired their infection in childhood.

Hepatitis C

- Number of new infections per year has declined from an average of 240,000 in the 1980's to about 26,000 in 2004.
- Most infections, as high as 60%, are due to illegal injection drug use.
- Transfusion-associated cases occurred prior to blood donor screening; now occurs in less than one per million transfused units of blood.
- Estimated 4.1 million (1.6%) Americans have been infected with HCV, of whom 3.2 million are chronically infected.

Statistical information obtained from the Center for Disease Control (CDC)

HEPATITIS

FACT SHEETS



Center for Disease Control (CDC) National Center for Infectious Disease

VIRAL HEPATITIS B FACT SHEET

SIGNS & SYMPTOMS

About 30% of persons have no signs or symptoms.

Signs and symptoms are less common in children than adults.

- jaundice
- loss of appetite
- fatigue
- nausea, vomiting
- abdominal pain
- joint pain

CAUSE

- Hepatitis B virus (HBV)

LONG-TERM EFFECTS WITHOUT VACCINATION

Chronic infection occurs in:

- 90% of infants infected at birth
- 30% of children infected at age 1-5 years
- 6% of persons infected after age 5 years

Death from chronic liver disease occurs in:

- 15-25% of chronically infected persons

TRANSMISSION

- Occurs when blood or body fluids from an infected person enters the body of a person who is not immune.
- HBV is spread through having sex with an infected person without using a condom (the efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmis-

sion), sharing needles or “works” when “shooting” drugs, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth.

Persons at risk for HBV infection might also be at risk for infection with hepatitis C virus (HCV) or HIV.

RISK GROUPS

- Persons with multiple sex partners or diagnosis of a sexually transmitted disease.
- Men who have sex with men.
- Sex contacts of infected persons.
- Injection drug users.
- Household contacts of chronically infected persons.
- Infants born to infected mothers.
- Infants/children of immigrants from areas with high rates of HBV infection.
- Health care and public safety workers.
- Hemodialysis patients.

PREVENTION

- Hepatitis B vaccine is the best protection.
- If you are having sex, but not with one steady partner, use latex condoms correctly and every time you have sex. The efficacy of latex condoms in preventing infection with



Center for Disease Control (CDC) National Center for Infectious Disease

VIRAL HEPATITIS B FACT SHEET

(CONTINUED)

HBV is unknown, but their proper use may reduce transmission.

- If you are pregnant, you should get a blood test for hepatitis B; Infants born to HBV-infected mothers should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours after birth.

PREVENTION, cont.

- Do not shoot drugs; if you shoot drugs, stop and get into a treatment program; if you can't stop, never share needles, syringes, water, or "works", and get vaccinated against hepatitis A and B.
- Do not share personal care items that might have blood on them (razors, toothbrushes).
- Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools have someone else's blood on them or if the artist or piercer does not follow good health practices.
- If you have or had hepatitis B, do not donate blood, organs, or tissue.
- If you are a health care or public safety worker, get vaccinated against hepatitis B, and always follow routine barrier precautions and safely handle needles and other sharps.

VACCINE RECOMMENDATIONS

- Hepatitis B vaccine available since 1982.
- Routine vaccination of 0-18 year olds.
- Vaccination of risk groups of all ages.

TREATMENT & MEDICAL MANAGEMENT

- HBV infected persons should be evaluated by their doctor for liver disease.
- Alpha interferon and lamivudine are two drugs licensed for the treatment of persons with chronic hepatitis B. These drugs are effective in up to 40% of patients.
- These drugs should not be used by pregnant women.
- Drinking alcohol can make your liver disease worse.

HEPATITIS

FACT SHEETS



Center for Disease Control (CDC) National Center for Infectious Disease

VIRAL HEPATITIS C FACT SHEET

SIGNS & SYMPTOMS

80% of persons have no signs or symptoms.

- jaundice
- abdominal pain
- fatigue
- loss of appetite
- dark urine
- nausea

CAUSE

- Hepatitis C virus (HCV)

LONG-TERM EFFECTS

- Chronic infection: 75-85% of infected persons
- Chronic liver disease: 70% of chronically infected persons
- Deaths from chronic liver disease: <3%
- Leading indication for liver transplant

TRANSMISSION

Recommendations for testing based on risk for HCV infection:

- Occurs when blood or body fluids from an infected person enters the body of a person who is not infected.
- HCV is spread through sharing needles or “works” when “shooting” drugs, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth.

Persons at risk for HCV infection might also be at risk for infection with hepatitis B virus (HBV) or HIV.

Recommendations for Testing Based on Risk for HCV Infection

PERSONS	RISK OF INFECTION	TESTING RECOMMENDED?
Injecting drug users	High	Yes
Recipients of clotting factors made before 1987	High	Yes
Hemodialysis patients	Intermediate	Yes
Recipients of blood and/or solid organs before 1992	Intermediate	Yes
People with undiagnosed liver problems	Intermediate	Yes
Infants born to infected mothers	Intermediate	After 12-18 mos. old
Healthcare/public safety workers	Low	Only after known exposure
People having sex with multiple partners	Low	No*
People having sex with an infected steady partner	Low	No*

*Anyone who wants to get tested should ask their doctor.



Center for Disease Control (CDC) National Center for Infectious Disease

VIRAL HEPATITIS C FACT SHEET

(CONTINUED)

PREVENTION

- There is no vaccine to prevent hepatitis C.
- Do not shoot drugs; if you shoot drugs, stop and get into a treatment program; if you can't stop, never share needles, syringes, water, or "works", and get vaccinated against hepatitis A & B.
- Do not share personal care items that might have blood on them (razors, toothbrushes).
- If you are a health care or public safety worker, always follow routine barrier precautions and safely handle needles and other sharps; get vaccinated against hepatitis B.
- Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools have someone else's blood on them or if the artist or piercer does not follow good health practices.
- HCV can be spread by sex, but this is rare. If you are having sex with more than one steady sex partner, use latex condoms* correctly and every time to prevent the spread of sexually transmitted diseases. You should also get vaccinated against hepatitis B.
- If you are HCV positive, do not donate blood, organs, or tissue.

TREATMENT & MEDICAL MANAGEMENT

- HCV positive persons should be evaluated by their doctor for liver disease.
- Interferon and ribavirin are two drugs licensed for the treatment of persons with chronic hepatitis C.
- Interferon can be taken alone or in combination with ribavirin. Combination therapy is currently the treatment of choice.
- Combination therapy can get rid of the virus in up to 4 out of 10 persons.
- Drinking alcohol can make your liver disease worse.

EXPOSURE

CONTROL PLAN



The Exposure Control Plan is a written program developed by the school district to identify, educate and protect employees who may have occupational exposure to bloodborne pathogens. It explains implementation of the Bloodborne Pathogens Standard within the school district, and, most importantly, it describes methods to eliminate or minimize employee exposure. The Exposure Control Plan has an overall administrator to oversee its implementation. A copy of your school district's Exposure Control Plan can be obtained by contacting the plan administrator.

Included in the Plan is the following information:

- school district's
- ▶ copy of the OSHA standard
- ▶ exposure determination
- ▶ post-exposure evaluation & follow-up
- ▶ Hepatitis B vaccination information
- ▶ methods of compliance
- ▶ employee training and information record keeping

EXPOSURE CONTROL PLAN

Exposure determination analyzes job tasks for their potential for blood or OPIM exposure. Included in this is the identification of employees who are at occupational risk for exposure to blood or OPIM. At risk employees have to perform tasks that might involve exposure to blood in the course of performing their job duties. A school nurse's duties clearly carry the inherent risk of exposure. This is different from an employee who may assist another staff member or student as a "Good Samaritan." The Good Samaritan may choose to help someone with a bleeding injury even though it is not a part of their job duties.

Whether at occupational risk or as Good Samaritans, all employees should follow Universal Precautions whenever there is a reasonably anticipated risk of exposure. All school staff and students should take precautions against the transmission of disease by using proper techniques and good hygiene to prevent the spread of infection and to protect themselves. There should be no distinction between those having symptomatic or asymptomatic disease. Thorough hand washing is a basic and effective way to maintain good hygiene and infection control.

UNIVERSAL PRECAUTIONS



Universal Precautions are hygiene procedures used to prevent blood or OPIM exposure. All tasks with a potential for exposure require the use of Universal Precautions to eliminate or minimize the possibility of exposure. Whenever possible, encourage individuals to tend to their own injury. If blood or OPIM is present, all “hands-on” employees must observe Universal Precautions.

- Wear gloves
- Use disposable towels
- Put all contaminated items in plastic bag
- Clean & disinfect contaminated areas
- Remove gloves carefully & correctly
- Wash hands thoroughly

Reporting Incidents of Exposure

All incidents of potential exposure to bloodborne pathogens must be reported to the health office. An occupational exposure occurs when someone else’s blood or body fluid gets through your skin or in your eyes, nose or mouth. Confidential medical evaluation and counseling are available to any exposed employee. Post exposure evaluation by a Health Care Professional may include recommendation for post-exposure vaccination, testing and/or counseling.

POST EXPOSURE

FOLLOW-UP



POST EXPOSURE FOLLOW-UP

Avoiding occupational blood exposures is the primary way to prevent transmission of hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV) in health-care and workplace settings. Although bloodborne exposure incidents are not common in a school setting, it is important to be familiar with post exposure follow-up procedures and options in the event of an occupation exposure. Post exposure follow-up procedures for your school district can be found in their Exposure Control Plan.

Hepatitis B

Hepatitis B immunization and post exposure management are integral components of a complete program to prevent infection following bloodborne pathogen exposure and are important elements of workplace safety. If a post exposure shot for HBV is needed, NYSDOH recommends beginning this as soon as possible and within 24 hours to achieve the best results. Recommendations for HBV post exposure management include initiation of the hepatitis B vaccine series to any susceptible, unvaccinated person who sustains an occupational blood or body fluid exposure. Post exposure prophylaxis (PEP) with hepatitis B immune globulin (HBIG) and/or hepatitis B vaccine series should be

considered for occupational exposures after Health Care Professional (HCP) evaluation.

Hepatitis C

Immune globulin and antiviral agents (e.g., interferon with or without ribavirin) are not recommended for PEP of hepatitis C. For HCV post exposure management, the HCV status of the source and the exposed person should be determined, and for employees exposed to an HCV positive source, follow-up HCV testing should be performed to determine if infection develops.

HIV/AIDS

In June 1998, the New York State Department of Health distributed a memorandum to all Workers' Compensation Carriers outlining new advances in the post exposure treatment of HIV/AIDS. The memorandum notes that the key study reported in the New England Journal of Medicine shows that immediate post exposure prophylaxis with antiretroviral medications can prevent transmission of HIV to workers from needle sticks and other blood exposure in occupational settings. The memorandum states that post exposure prophylaxis should begin within two hours after exposure and continue for a period of thirty (30) days.

As with any medical treatment, the treatment options, benefits and risks



POST EXPOSURE FOLLOW-UP

POST EXPOSURE FOLLOW-UP

(CONTINUED)

need to fully understood and discussed with a knowledgeable Health Care Professional.

SOURCE: CDC Publication MMWR June 2001 and NYSDOH June 1998

BOX 1. Recommendations for the contents of the occupational exposure report

- date and time of exposure;
- details of the procedure being performed, including where and how the exposure occurred; if related to a sharp device, the type and brand of device and how and when in the course of handling the device the exposure occurred;
- details of the exposure, including the type and amount of fluid or material and the severity of the exposure (e.g., for a percutaneous exposure, depth of injury and whether fluid was injected; for a skin or mucous membrane exposure, the estimated volume of material and the condition of the skin [e.g., chapped, abraded, intact]);
- details about the exposure source (e.g., whether the source material contained HBV, HCV, or HIV; if the source is HIV-infected, the stage of disease, history of antiretroviral therapy, viral load, and antiretroviral resistance information, if known);
- details about the exposed person (e.g., hepatitis B vaccination and vaccine-response status); and
- details about counseling, postexposure management, and follow-up.

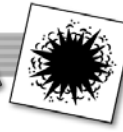
BOX 2. Factors to consider in assessing the need for follow-up of occupational exposures

- | | |
|--|--|
| <ul style="list-style-type: none">▪ Type of exposure<ul style="list-style-type: none">• Percutaneous injury• Mucous membrane exposure• Nonintact skin exposure• Bites resulting in blood exposure to either person involved▪ Type and amount of fluid/tissue<ul style="list-style-type: none">• Blood• Fluids containing blood• Potentially infectious fluid or tissue (semen; vaginal secretions; and cerebrospinal, synovial, pleural, peritoneal, pericardia, and amniotic fluids)• Direct contact with concentrated virus | <ul style="list-style-type: none">▪ Infectious status of source<ul style="list-style-type: none">• Presence of HBsAg• Presence of HCV antibody• Presence of HIV antibody▪ Susceptibility of exposed person<ul style="list-style-type: none">• Hepatitis B vaccine and vaccine response status• HBV, HCV, and HIV immune status |
|--|--|

Note: See your school's Exposure Control Plan for forms (example, Forms D, E and F) that will assist in documenting the above.

POST EXPOSURE

FOLLOW-UP



POST EXPOSURE FOLLOW-UP

(CONTINUED)

BOX 3. Evaluation of occupational exposures sources

Known sources

- Test known sources for HBsAg, anti-HCV, and HIV antibody
 - Direct virus assays for routine screening of source patients are not recommended
 - Consider using a rapid HIV-antibody test
 - If the source person is not infected with a bloodborne pathogen, baseline testing or further follow-up of the exposed person is not necessary
- For sources whose infection status remains unknown (e.g., the source person refuses testing), consider medical diagnoses, clinical symptoms and history of risk behaviors
- Do not test discarded needles for bloodborne pathogens

Unknown sources

- For unknown sources, evaluate the likelihood of exposure to a source at high risk for infection
 - Consider likelihood of bloodborne pathogen infection among patients in the exposure setting

BOX 4. Situations for which expert* consultation for HIV postexposure prophylaxis is advised

- Delayed (i.e., later than 24-36 hours) exposure report
 - the interval after which there is no benefit from postexposure prophylaxis (PEP) is undefined
- Unknown source (e.g., needle in sharps disposal container or laundry)
 - decide use of PEP on a case-by-case basis
 - consider the severity of the exposure and the epidemiologic likelihood of HIV exposure
 - do not test needles or other sharp instruments for HIV
- Known or suspected pregnancy in the exposed person
 - does not preclude the use of optimal PEP regimens
 - do not deny PEP solely on the basis of pregnancy
- Resistance of the source virus to antiretroviral agents
 - influence of drug resistance on transmission risk is unknown
 - selection of drugs to which the source person's virus is known or suspected to be resistant to ≥ 1 of the drugs considered for the PEP regimen
 - resistance testing of the source person's virus at the time of the exposure is not recommended
- Toxicity of the initial PEP regimen
 - adverse symptoms, such as nausea and diarrhea are common with PEP
 - symptoms often can be managed without changing the pep regimen by prescribing antimotility and/or antiemetic agents
 - modification of dose intervals (i.e., administering a lower dose of drug more frequently throughout the day, as recommended by the manufacturer), in other situations, might help alleviate symptoms

* Local experts and/or the National Clinicians' Post-Exposure Prophylaxis Hotline (PEpline 1-888-448-4911).



WORK PRACTICE

CONTROLS

Specific procedures used to reduce your potential for exposure to blood, blood contaminated body fluids or OPIM are referred to as work practices. Hand washing is a simple and effective means for reducing the risk of infection by removing the source of infection and reducing the amount of contact time. It also prevents the transfer of contamination to other areas of the body or to other surfaces. Although eyes and mucous membranes cannot be washed in the same manner, flushing these areas with water or a saline solution as soon as possible is recommended.

OTHER EXAMPLES OF WORK PRACTICES INCLUDE:

- ▶ Providing readily accessible hand washing facilities
- ▶ Washing hands immediately or as soon as feasible after removal of gloves
- ▶ At non-fixed sites i. e., emergency scenes, mobile blood collection sites which lack hand washing facilities, providing interim hand washing measures, such as antiseptic towelettes and paper towels. Employees can later wash their hands with soap and water as soon as feasible
- ▶ Washing body parts as soon as possible after skin contact with blood or other potentially infectious materials occurs
- ▶ Prohibiting the recapping or bending of needles
- ▶ Shearing or breaking contaminated needles is prohibited
- ▶ Labeling
- ▶ Equipment decontamination
- ▶ Prohibiting eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses in work areas where there is a likelihood of occupational exposure
- ▶ Prohibiting food and drink from being kept in refrigerators, freezers, shelves, cabinets or on counter tops or bench tops where blood or other potentially infectious materials are present
- ▶ Requiring that all procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, splattering, and generation of droplets of these substances
- ▶ Placing specimens of blood or other potentially infectious materials in a container which prevents leakage during collection, handling, processing, storage, transport or shipping
- ▶ Examining equipment which may become contaminated with blood or other potentially infectious materials prior to servicing or shipping and decontaminating such equipment as necessary. Items will be labeled per the standard if not completely decontaminated.



WORK PRACTICE

CONTROLS



PERSONAL PROTECTIVE EQUIPMENT

Depending on the job task and anticipated potential for exposure, other personal protective equipment (PPE) besides gloves may be necessary to maintain a barrier between the exposure source and the person performing the job task. Any PPE that is reused must be disinfected, including gloves. Single use, disposable gloves **MUST** be properly disposed of and **NEVER** reused. Personal protective equipment must be available and used properly to be effective. Other PPE that may be used are listed below.

- Resuscitation masks
- Glasses or face shields
- Aprons, gowns or lab coats
- Booties
- Face mask
- CPR barriers

ENGINEERING CONTROLS

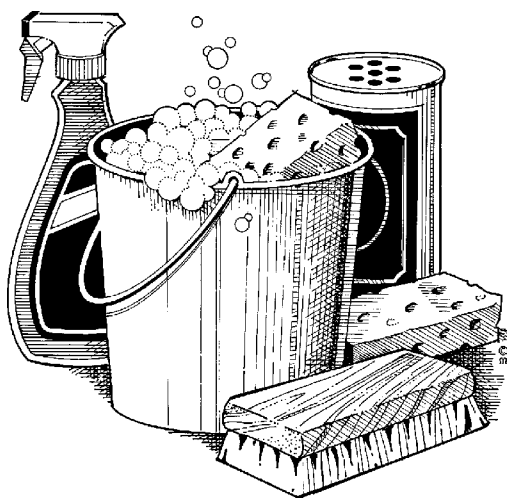
Engineering controls are another method used to control the risk of exposure. The engineering control most likely to be used in schools would be sharps containers (puncture-resistant and leak-proof receptacles for sharp objects such as needles and scalpels) which are usually located in the Health Office. Other examples of engineering controls are self-sheathing needles and bio-safety cabinets. Tongs, pliers or broom and dust pan should be used to pick up broken glass, syringes, or any other sharp object. Biohazard bags and containers may be used to ensure that contaminated materials are properly handled. These are also available in the school Health Office.



HOUSEKEEPING

Good hygiene is a very important aspect of infection control, and along with that goes good housekeeping practices. Keeping surfaces clean helps control the potential for the spread of many germs, and on surfaces contaminated with blood or OPIM, additional measures should be implemented as part of the Exposure Control Plan. Cleaning up an area where blood or OPIM have been present involves the use of Universal Precautions and an EPA- registered disinfectant. A schedule of cleaning should be in place with standard operating procedures established for the proper methods of cleaning to be used in the different areas and situations. For instance, for restrooms and health offices, gloves and disinfectants would be required, whereas halls and classrooms may not require those procedures on a routine basis. If utility gloves (not single use) are worn, they need to be disinfected after use.

Laundry that has blood or OPIM must also be treated as being potentially infectious. Use Universal Precautions and keep it separate from other laundry. Blood/OPIM soiled clothing and other washable items should be sealed in a leak-proof plastic bag or container to prevent further exposure potential until it can be properly laundered.



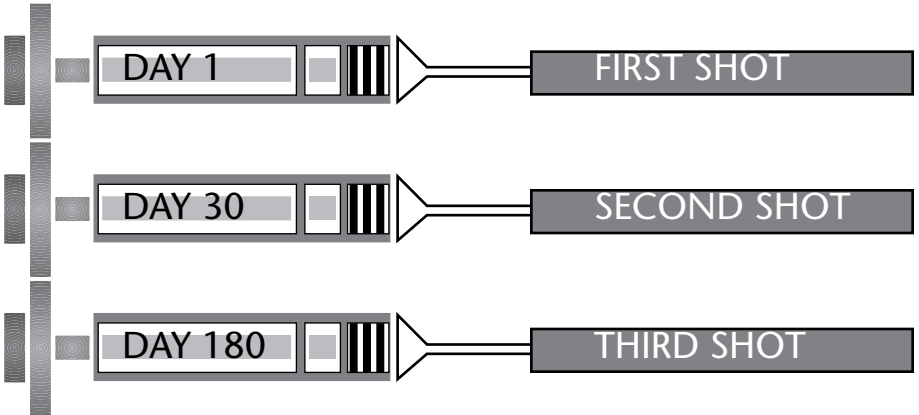
VACCINATION



HEPATITIS B VACCINE

A vaccine has been developed that is effective in the prevention of hepatitis B. Although originally made with plasma, the vaccines now are made using bakers yeast and recombinant DNA technology and have a very high rate of effectiveness. Vaccination involves a series of three shots given over a six month period. Since the vaccine is made from yeast, it is not recommended for people who are allergic to yeast to have the shots. Some people may experience a sore arm or soreness at the injection site, or even a headache or mild joint ache, but most suffer little or no discomfort. At this time, there does not seem to be a need for a booster shot. However, if it is determined that a booster is needed, this information will be disseminated to all who have received the vaccine series and also included in the training and information given to employees.

VACCINATION SCHEDULE



The Hepatitis B vaccination is offered to all employees at occupational risk to bloodborne pathogens at no cost to the employees. At-risk employees must sign a form to consent or decline this offer of vaccination. Those who decline have the option of changing their mind and receiving the vaccine at any time. These forms are included at the back of this booklet.



U. S. Department of Labor Program Highlights

Fact Sheet No. OSHA 92-46

Bloodborne Pathogens Final Standard: Summary of Key Provisions

PURPOSE: Limits occupational exposure to blood and other potentially infectious materials since any exposure could result in transmission of bloodborne pathogens which could lead to disease or death.

SCOPE: Covers *all employees who could be "reasonably anticipated"* as the result of performing their job duties to *face contact with blood* and other potentially infectious materials. OSHA has not attempted to list all occupations where exposure could occur. "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any unfixed tissue or organ other than intact skin from a human (living or dead) and human immunodeficiency virus (HIV)-containing cell or tissue cultures, organ cultures and HIV or hepatitis B (HBV)- containing culture medium or other solutions as well as blood, organs or other tissues from experimental animals infected with HIV or HBV.

EXPOSURE CONTROL PLAN: Requires employers to *identify, in writing* tasks and procedures as well as job classifications *where occupational exposure to blood occurs*-without regard to personal protective clothing and equipment. It must also set forth the *schedule for implementing other provisions* of the standard and specify the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update it at least annually-more often if necessary to accommodate workplace changes.

METHODS OF COMPLIANCE: Mandates *universal precautions* (treating body fluids/materials as if infectious) *emphasizing engineering and work practice controls*. The standard stresses handwashing and requires employers

to provide facilities and ensure that employees use them following exposure to blood. It sets forth procedures to minimize needlesticks, minimize splashing and spraying of blood, ensure appropriate packaging of specimens and regulated wastes and decontaminate equipment or label it as contaminated before shipping to servicing facilities.

Employers must provide, at no cost, and require employees to use appropriate *personal protective equipment* such as gloves, gowns, masks, mouthpieces and resuscitation bags and must clean, repair and replace these when necessary. Gloves are not necessarily required for routine phlebotomies in volunteer blood donation centers but must be made available to employees who want them.

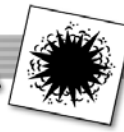
The standard requires a *written schedule for cleaning*, identifying the method of decontamination to be used, in addition to cleaning following contact with blood or other potentially infectious materials. It specifies methods for disposing of contaminated sharps and sets forth standards for containers for these items and other regulated waste. Further, the standard includes provisions for handling contaminated laundry to minimize exposures.

HIV AND HBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES: Calls for these facilities to follow *standard microbiological practices* and specifies additional practices intended to minimize exposures of employees working with concentrated viruses and reduce the risk of accidental exposure for other employees at the facility. These facilities must include required containment equipment and an autoclave for decontamination of regulated waste and must be constructed to limit risks and enable easy clean up. *Additional training and experience requirements* apply to workers in these facilities.

HEPATITIS B VACCINATION: Requires vaccinations to be made *available to all employees who have occupational exposure to blood* within 10 working days of assignment, at no cost, at a reasonable time and place, under the supervision of licensed physician/licensed health care professional and according to the latest recommendations

This is one of a series of fact sheets highlighting U. S. Department of Labor programs. It is intended as a general description only and does not carry the force of legal opinion. This information will be made available to sensory impaired individuals upon request. Voice phone: (202) 523-8151. TDD message referral phone: 1-800-326-2577.

REGULATIONS



of the U.S. Public Health Service (USPHS). *Prescreening may not be required* as a condition of receiving the vaccine. Employees must sign a *declination form* if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. Should booster doses later be recommended by the USPHS, employees must be offered them.

POST EXPOSURE EVALUATION AND FOLLOW-UP: Specific procedures to be made *available to all employees who have had an exposure incident* plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow-up must include a *confidential medical evaluation* documenting the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee's blood if he/she consents, post-exposure prophylaxis, counseling and evaluation of reported illnesses. Health care professionals must be provided specified information to facilities the evaluation and their written opinion on the need for hepatitis B vaccination following the exposure. Information such as the employee's ability to receive the hepatitis B vaccine must be supplied to the employer. All diagnoses must remain confidential.

HAZARD COMMUNICATION: Requires *warning labels* including the *orange or orange-red biohazard symbol* affixed to containers of regulated waste, refrigerators and freezers and other containers which are used to store or transport blood or other potentially infectious materials. *Red bags or containers may be used* instead of labeling. When a facility uses universal precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal precautions, the laundry need not be labeled. Blood which has been tested and found free of HIV or HBV and released for clinical use, and regulated waste which has been decontaminated, need not be labeled. *Signs* must be used to *identify restricted areas* in HIV and HBV and research laboratories and production facilities.

INFORMATION AND TRAINING: Mandates *training within 90 days* of effective date, *initially* upon assignment and *annually*-employees who have received appropriate

training within the past year need only receive additional training in items not previously covered. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipments, hepatitis B vaccine, response to emergencies involving blood, how to handle exposure incidents, the post-exposure evaluation and follow-up program, signs/labels/color-coding. There must be *opportunity for questions and answers* and the *trainer must be knowledgeable* in the subject matter. *Laboratory and production facility workers* must receive *additional specialized initial training*.

RECORDKEEPING: Calls for medical records to be kept for each employee with occupational exposure for the *duration of employment plus 30 years* must be *confidential* and must include name and social security number, hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy of the health care professional's written opinion; and a copy of information provided to the health care professional. Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, names and job titles of all persons attending the sessions. Medical records must be made *available to the subject employee*, anyone with written consent of the employee, OSHA and NIOSH-they are not available to the employer. Disposal of records must be in accord with OSHA's standard covering access to records.

DATES: Effective date: March 6, 1992. *Exposure control plan:* May 5, 1992. *Information and training requirements and recordkeeping:* June 4, 1992. And the following *other provisions* take effect on July 6, 1992: engineering and work practice controls, personal protective equipment, housekeeping, special provisions covering HIV and HBV research laboratories and production facilities, hepatitis B vaccination and post-exposure evaluation and follow-up and labels and signs.



Updated Bloodborne Pathogens Regulation

RE: OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS; NEEDLESTICK AND OTHER SHARPS INJURIES; FINAL RULE.

Final Rule:1/18/01

OSHA Effective Date:4/18/01

NYSDOL Effective Date:10/18/01

SUMMARY: BBP standard was revised in conformance with the requirements of the *Needlestick Safety and Prevention Act (11/6/00)*. This Act directed OSHA to revise the BBP standard as follows:

- **Modification of definitions relating to engineering controls.** To include new examples in the definition of engineering controls to include two new definitions: a. "Sharps with Engineered Sharps Injury Protections" and b. "Needleless Systems"
- **Revision and updating of the Exposure Control Plan.** To require that Exposure Control Plans reflect how employers implement new developments in control technology.
- **Solicitation of employee input.** To require employers to solicit input from employees responsible for direct patient care in the identification, evaluation, and selection of engineering and work practice controls.
- **Recordkeeping.** To require certain employers to establish and maintain a log of percutaneous injuries from contaminated sharps. This log must be kept in a manner that protects the confidentiality and privacy of the injured employee.

HISTORY: These updates have come about through a 1998 OSHA study of BBP occupational exposures due to percutaneous injury. To minimize the risk of such occupational exposures, they want 3 components to be addressed:

1. The revised recordkeeping standard (29 CRF 1904) to include a requirement that

- all percutaneous injuries from contaminated needles and other sharps be recorded on OSHA logs.
2. The revised OSHA compliance directive (11/5/99) for the BBP standard to reflect advances made in medical technology and treatment.
3. OSHA placed amendment of the BBP standard on its regulatory agenda to more effectively address sharps injuries.

New Definitions in the BBP Regulation: (NOTE: *italicized type = new language*)

- **Engineering Controls:** means controls (e.g., sharps disposal containers, self-sheathing needles, *safer medical devices, such as sharps with engineered sharps injury protections and needleless systems*) that isolate or remove the bloodborne pathogens hazard from the workplace.
- **Sharps with Engineered Sharps Injury Protections:** means a *nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.*
- **Needleless Systems:** means a *device that does not use needles for (1) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) the administration of medication or fluids; or (3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.*

NOTE: The revised definitions do not reflect any new requirements being placed on employers with regard to protecting workers from sharps injuries, but are meant only to clarify the original standard, and to reflect the development of newer safer medical devices since that time. Other engineering controls can include blunt suture needles and plastic Mylar-wrapped glass capillary tubes, as well as non-medical devices like sharps disposal containers and biosafety cabinets.

FORMS



HEPATITIS B VACCINATION

CONSENT FORM

I understand the benefits and risks of hepatitis B vaccination. I understand that I must receive at least 3 intramuscular doses of vaccine in the arm over a 6-month period to confer immunity. However, as with all medical treatment, there is no guarantee that I will become immune or that I will not experience an adverse side effect from the vaccine. I do understand that anyone with a known *allergy to yeast* should not accept this vaccine.

Hepatitis B vaccine will be made available at no charge to employees having occupational blood exposure.

I have had an opportunity to ask questions, and all my questions have been answered to my satisfaction. I believe that I have adequate knowledge upon which to base an informed consent.

I understand that participation is voluntary and my consent or refusal of vaccination does not waive any rights under my employment contracts. In addition, I can withdraw from the vaccination regimen at anytime.

I desire that my employer provide the required three (3) doses of Hepatitis B vaccine.

Print Name

Social Security #

Date

Signature

FORMS



HEPATITIS B VACCINATION

DECLINATION FORM

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Print Name

Social Security #

Date

Signature

If applicable, please fill out

I have received the Hepatitis B vaccination on: _____, _____, _____.

Print Name

Social Security #

Date

Signature



PANDEMIC INFLUENZA

WHAT IS PANDEMIC INFLUENZA?

A novel or new virus for which there is no immunity. Characterized by rapid, global spread from human to human.

SEASONAL FLU VS. PANDEMIC INFLUENZA

The Seasonal Flu peaks December thru March in North America. Death rates are highest in the elderly, very young and individuals with certain chronic illness. Pandemic Influenza has no seasonal preference and comes in waves during a time period of a year or more. A pandemic flu may result in millions of deaths because there is no immunity.

WHAT CAUSES A PANDEMIC INFLUENZA?

A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time. An influenza pandemic may be caused by either swine (pig) or avian (bird) flu viruses.

There are currently cases of human infection with H1N1 throughout the world, including the United States. Health professionals are concerned about this virus for the following reasons:

- It is a never-before seen combination of human, swine, and avian influenza viruses.
- It is being spread from human to human.
- The age group most affected is healthy, young adults (unlike seasonal flu)
- Like other influenza viruses, it continues to evolve.

HOW INFLUENZA SPREAD?

Transmission is predominantly spread from the droplets from a sneeze. People either have direct contact with droplets or they pick them up from surfaces where they have settled. Your eye, mouth and nasal openings are points of entry and inoculation for virus particles.

PREVENTION-UNDERSTAND AND BEGIN PRACTICING PERSONAL PROTECTIVE BEHAVIOR NOW

- Cover your mouth & nose with a tissue when coughing and sneezing. Throw out tissue in a waste basket and wash your hands.
- If you don't have a tissue, don't cough or sneeze into your hand. Instead, cough or sneeze into the crook of your arm so you won't get germs on your hands and spread them to others.
- Wash your hands often with soap and water. When hand washing is not possible, use antiseptic hand gels that contain alcohol.
- Stay home when you are sick and keep your children home from school or daycare when they are sick.
- Learn more about the importance of a good home preparedness plan.
- Stay informed.

New York State Department of Health

<http://www.nyhealth.gov/diseases/communicable/influenza/>

<http://www.nyhealth.gov/diseases/communicable/influenza/pandemic/>

Centers for Disease Control and Prevention

<http://www.cdc.gov/h1n1flu/>

United States Department of Health and Human Services

<http://www.pandemicflu.gov/>

World Health Organization

<http://www.who.int/csr/disease/swineflu/en/index.html>



Useful Internet Sites

Poison Control Center: 1-800-222-1222

HEALTH/SAFETY/RISK MANAGEMENT WEBSITES

- Material Safety Data Sheets: <http://www.msdsonline.com>
- Health/Safety/Risk Management: <http://risk.capregboces.org>
- Capital Region BOCES: <http://www.capregboces.org>

Other Useful Internet Sites

U.S. Consumer Product Safety Commission (CPSC) – <http://www.cpsc.gov/>

U.S. Center for Disease Control and Prevention (CDC) – <http://www.cdc.gov/>

U.S. Occupational Safety and Health Administration (OSHA) – <http://www.osha.gov/>

U.S. National Institutes of Health (NIH) – <http://www.nih.gov/>

U.S. Environmental Protection Agency (EPA) – <http://www.epa.gov/>

Federal Emergency Management Agency (FEMA) – <http://www.fema.gov/>

New York State Education Department Facilities Planning –
<http://www.emsc.nysed.gov/facplan/>

New York State Emergency Management Office (SEMO) –
<http://www.semo.state.ny.us/>

New York State Department of Environmental Conservation (DEC or ENCON) –
<http://www.dec.ny.gov/>

New York State Department of Health (NYSDOH) –
<http://www.nyhealth.gov>

New York State Department of Labor Public Employee Safety and Health (NYSDOL/
PESH) – <http://www.labor.state.ny.us>

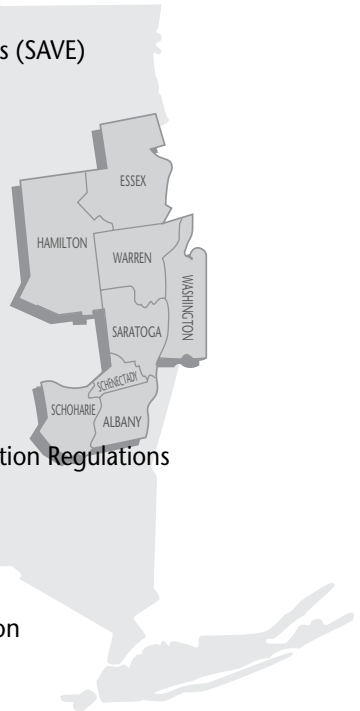
New York State Police (School and Community Outreach Programs) –
<http://www.troopers.state.ny.us/>

Association of Educational Safety and Health Professionals – <http://www.aeshp.org/>

American Society for Testing and Materials – www.astm.org/

BOCES Health/Safety/Risk Management, (518) 464-5115/5114, can assist with:

- * Art and Science Classroom Safety
- * Asbestos and AHERA
- * Bloodborne Pathogens & Universal Precautions
- * Bulk Storage Tanks
- * Chemical Inventory Control
- * Confined Spaces
- * Construction Management
- * Emergency Planning & School Safety Plans (SAVE)
- * EPA Safe Drinking Water Act
- * Fire and Building Code
- * Indoor Air Quality
- * Lead Poisoning Prevention Awareness & OSHA/EPA Lead Regulations
- * NYS Department of Health Courses in Asbestos for DOL Certification
- * NYS Pollutant Discharge Elimination
- * OSHA Compliance
- * Pesticide Application & Neighbor Notification Regulations
- * Playground Safety
- * Radon
- * Respirator Use/Medical Surveillance
- * Right-To-Know and Hazard Communication
- * Risk Management Services
- * Safety Committees
- * Structural Safety Inspection
- * Transportation Safety
- * Underground Injection Control
- * Water Quality
- * Workplace Hazard Assessments



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