

**UNIVERSAL PRECAUTIONS:
AN
EDUCATIONAL TRAINING

FOR
CHILD CARE PROVIDERS**

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1999

Dear Colleagues:

We are pleased to provide you with a copy of our new instructional manual, *Universal Precautions for Child Care Providers*. This manual is the result of a need to provide Universal Precautions educational training for child care providers. This instructional manual has been accepted by the Division of Child Care as a standard curriculum for Universal Precaution training.

We would like to acknowledge Sarah Scully, RD, MPH, Child Health Promotion Coordinator for testing this curriculum at the Boulder County Health Department.

A special thanks needs to be extended to the following agencies who so generously shared their materials with us:

Tri-County Health Department
The Children's Hospital School Health Program
Office of Occupational Safety and Health Administration, Division of US Department of Labor,
Colorado Office

This curriculum was adapt from The Arizona Department of Health, Bloodborne Pathogens In The Early Childhood Setting

UNIVERSAL PRECAUTIONS

Additional statements of information/explanation to share are provided for you in *italics*.

Early childhood professionals need to be knowledgeable about infectious diseases that can be transmitted in the early childhood setting, including those spread through contact with blood and other potentially infectious body fluids.

OH #1: FOUR WAYS TO SPREAD GERMS

Communicable diseases are spread from person-to-person in four basic ways:

1. Airborne or the respiratory route

These germs are spread when infected droplets from the nose, mouth, sinuses, throat, lungs or contaminated tissues or fabric are inhaled when we breathe.

Examples of the **Airborne Route** of infection are: TB, Colds, Chicken pox

2. Direct contact route

This type of germ contact occurs by directly touching an infected area or body fluid such as saliva, mucus, eye discharge, pus or spit.

Examples of **Direct Contact** route are: Conjunctivitis, impetigo, lice, poison ivy, chicken pox

3. Fecal-oral route

These germs enter the body from hands, food, mouthed toys, toilet, diapers, etc., that have been unintentionally infected with germs from stool.

Examples of **Fecal-Oral** communicable route are: hand, foot, and mouth disease, Hepatitis A, rotavirus

4. Blood contact route

Meaning that an individual must come into contact with the infected blood or infected body fluids or another in order to “catch” the disease.

Examples of **Blood Contact** route are: HIV/AIDS, Hepatitis B, Hepatitis C

All communicable diseases are spread by one of these transmission routes. Some diseases

cause only mild illness, while others may be life-threatening. Understanding the route of transmission not only tells us how we spread disease, but also directs our efforts in preventing the spread of disease.

A pathogen is a disease-causing “germ”. In the case of bloodborne pathogens, that are the focus of this activity, these germs are spread through the bloodborne route. The word pathogen means to cause suffering.

Bloodborne pathogens are disease-causing germs that are found in infected human blood and certain other body fluids, particularly semen and vaginal secretions.

1. These pathogens may be passed from person-to-person with any exposure to infected blood or infected body fluid.
2. Pathogens of significance are Hepatitis B Virus (HBV), Hepatitis C and Human Immunodeficiency Virus (HIV).

The initials HIV and HBV are sometimes difficult for learners to distinguish between in an in-service or workshop setting. This is especially true when highlighting distinguishing characteristics of the diseases. It may be more helpful to use these terms: “HIV/AIDS”, when referring to infection with the Human Immunodeficiency virus and Hepatitis B disease when referring to infection with Hepatitis B virus.

We are now going to take a look at bloodborne pathogens and young children. The number of children born with HIV infection is rapidly decreasing. Gains in medical knowledge and treatment are also resulting in longer life spans for these children.

As of December 1998, 688,200 Americans have been reported with AIDS. And at least 417,359 of them have died. Deaths among people with AIDS also declined for the first time in 1996, dropping 42%. From 1997-1998, there was a 20% decrease in the number of deaths from AIDS. If declines in AIDS cases continue, there will also be an increase in the number of people with HIV infection, pointing to an increased need for both prevention and treatment of services. It is estimated that at least 40,000 new HIV infections occur each year.

And each year an estimated 1,800 children are born with HIV infection. Over 80% of the children who are infected in this country were infected by their mothers during pregnancy or at the time of delivery. Between 1992 and 1996, the number of children with perinatally acquired AIDS dropped 43%. The majority of cases still occur among African-American and Hispanic children, indicating the need for intensified efforts to prevent infection among minority women and to reach women who are infected with early prenatal care and preventive treatment.

Most other children were infected through the transmission of infected blood. Transmission through breastmilk from an infected mother has also been documented.

It has been reported that the incidence of children with HIV infection is declining. For more up-to-date information, please contact the National AIDS Hotline is 1-800-342-AIDS. For Spanish speaking population, the National AIDS Hotline is 1-800-344-SIDA

Although the child care community is not yet overwhelmed by children with HIV infection, many programs have already come into contact with families affected by HIV and its most advanced state, Acquired Immune Deficiency Syndrome or AIDS. Some of these children are enrolled in child care, and many others are eligible to enroll.

The Centers for Disease Control and Prevention (CDC) has reported a dramatic decrease in pediatric AIDS due to the Public Health Service guidelines for zidovudine (ZDV or AZT) during pregnancy and the testing of pregnant women. The swiftness of the decline has suggested that the goal of eliminating perinatal transmission may be attainable.

Hepatitis B Virus infection in children is being prevented through early detection of risks, and through immunization. HBV vaccine is now included in the routine childhood immunization series. Treatment of HBV infection discovered in early stages may prevent life-threatening complications.

More than 1,000,000 Americans carry the Hepatitis B virus in their blood. Each year another 300,000 are infected. Some are infants born to mothers who carry the Hepatitis B virus.

OH #2: HIV/AIDS

HIV infection is caused by one of several related retro viruses that become incorporated in the host cell DNA and result in a wide range of clinical presentations varying from asymptomatic carrier states to severely debilitating and fatal disorders.

HIV infects a major subset of T cells defined as helper/inducer cells. Their function is to protect the immune system. These cells are systematically destroyed during the course of HIV disease, making the individual susceptible to a number of illnesses.

Most people infected with HIV develop detectable antibodies within 6-12 weeks after infection; occasionally, there is a delayed response. During this phase called "seroconverting" people are capable of transmitting the virus to others.

As of December 1999, there were a total of 22 children living with AIDS in Colorado under the age of 13 years.

Here are some considerations for children who are infected with HIV/AIDS:

1. Communicable diseases, e.g., the common cold, chicken pox and strep throat pose additional risks to the HIV-infected child. All parents must be alerted to the presence of infectious disease should it occur in the group setting.
2. If communicable diseases such as measles, chickenpox or whooping cough are identified in the group setting, temporary exclusion of the HIV-infected child may be recommended to protect the child from unwarranted health risks. This is done due to the decreased ability of the HIV-infected child to fight infection.
3. Disclosure of illness is parent driven. Parents normally disclose this illness to the director and the immediate care giver(s). This information is considered highly

confidential and the penalty for disclosure is severe. There is no need to share this information with other staff members. Ordinarily, most children are able to attend child care without restrictions.

4. A plan of care regarding the child's inclusion/exclusion needs to be in place before the child begins child care activities. This would involve exposure to communicable disease because the immune system may be compromised.

OH #3: HOW HIV INFECTION IS SPREAD

There are several ways that HIV is spread and those include:

1. From infected person to an uninfected person during unprotected anal, vaginal, or oral sexual intercourse;
2. Infected intravenous drug users when they share needles and syringes contaminated with their blood

All hypodermic needles and syringes must be considered as potential source of infection for bloodborne pathogens like HIV, Hepatitis B and C.

3. Women infected with HIV may pass the virus to their unborn child. As the virus may be passed through breast milk of the infected woman, breast feeding is not recommended for infants of infected mothers.
4. Blood-to-blood transmission can occur when the infected blood of an individual enters the bloodstream of another through blood transfusions, breaks in the skin, mucous membranes, or through needlesticks.

Nationwide screening of blood products for HIV began in 1985. Although receiving donated blood may have its risks, donating blood for transfusion to others remains a safe and vital act.

OH #4 and #5: Each one is titled, HOW YOU CANNOT GET HIV/AIDS:

Providing first aid for bleeding injuries poses a second concern for the possibility of a blood-to-blood contact. It is possible to become infected when infected blood (or bodily fluid containing visible blood) comes in contact with skin that is broken or open. Infected blood that comes in contact with mucous membranes, e.g., lining of the eyes, mouth, and nose, may also infect an individual.

HIV is not easily transmitted in average daily activities for adults or children. HIV is **NOT TRANSMITTED** by:

1. Casual contact with infected people;
2. Holding or hugging infected people;
3. Sharing food, utensils, clothing, bed linens, art equipment, e.g., play-dough, clay or water play;
4. Kissing on the lips or cheeks; or

5. Coming into contact with perspiration, tears, saliva, vomit, urine, or stool that does not contain visible blood;
6. Shaking hands;
7. Sharing restroom
8. Bathroom fixtures;
9. Drinking fountains;
10. Mosquitoes; and
11. Eating with carriers

Sharing personal articles contaminated with blood, e.g., toothbrushes and shaving razors, have been implicated in the transmission of HIV/AIDS.

OH #6: WRITTEN POLICIES

Childhood programs' written policies on HIV/AIDS should address:

1. Education and training for all staff and volunteers on a yearly basis.
2. Infection control measures, e.g., use of personal protective equipment, sanitation practices, bagging and disposal of items contaminated with visible blood or other body fluids.
3. Enrollment process: confidentiality vs. "need-to-know", enrollment interview with parents and staff involved in the child's care on an as needed basis and inclusion into program activities.
4. Record keeping/documentation that includes confidentiality, exposure to other communicable diseases and communication.
5. Ongoing support for staff, children and families.

In the early childhood setting the risks of becoming infected with HIV/AIDS are very low. Do keep in mind that the most common way individuals become infected with HIV/AIDS is through sexual relations with an infected partner, and sharing contaminated needles and syringes. These activities are not expected behaviors in an early childhood program.

OH #7: WHAT IS HEPATITIS B?

Hepatitis B infection occurs when the HBV virus enters the body, multiplies in the blood and infecting the liver.

*Hepatitis A and Hepatitis B are easily confused because of the similarity of their names. Each of these diseases is caused by a separate and distinct virus. However, both viruses infect the liver and may show similar symptoms. **Hepatitis A is spread through the stool-to-mouth or the fecal-oral route.** This infection is sometimes referred to as "infectious hepatitis". **Hepatitis B is spread through the bloodborne route and is sometimes called "serum hepatitis".** Two hundred to three hundred million people throughout the world are chronic carriers of Hepatitis B and about half of these people do not have any symptoms of infection.*

Hepatitis B can result in mild illness, chronic (long-lasting) infection or permanent liver damage.

Most individuals recover completely. However, death does occur in some cases due to liver failure. Hepatitis B infection is second only to tobacco among known human cancer-causing agents. Hepatitis B is the cause of up to 80% of liver cancer.

Hepatitis B can affect anyone. Each year in the United States, more than 200,000 people of all ages get hepatitis B and close to 5,000 die of sickness caused by HBV. Twenty-two thousand pregnant women are chronically infected. If you have had other forms of hepatitis, you can still get hepatitis B. If you wish to have more information, please log on to the Centers for Disease Control and Prevention website: <http://www.cdc.gov/ncidod/disease/hepatitis/b/faqb.htm> for information about hepatitis B and http://www.cdc.gov/nchstp/hiv_aids/pubs/facts/perinatl.htm

OH # 8: SYMPTOMS OF HEPATITIS B

Some signs and symptoms of Hepatitis B are: weakness, fatigue, loss of appetite, nausea, abdominal pain, fever and headache and occasionally yellowing of the skin and eyes which is called jaundice.

Hepatitis B infected individuals may show no symptoms of the illness, BUT they are capable of infecting others. They are referred to as “chronic carriers” and are at high risk for serious liver damage. They are 12-300 times more likely than the average person to develop liver cancer.

*10% of infected individuals will become chronic carriers
30-50% of children infected between 1-5 years may become carriers
A high percentage of infants who acquire Hepatitis B from their mothers at birth will become chronic carriers*

There is no cure for Hepatitis B.

OH # 9: WHAT IS HEPATITIS C

Hepatitis C (HCV) was first identified in the mid-1970's, but it wasn't until 1992 that a test specific for Hepatitis C became available. Hepatitis C Virus (HCV) infection is the most common chronic bloodborne infection in the United States. Approximately 3.9 million persons in the United States are infected with HCV. About 7% of these may have acquired their infection from a blood transfusion. There are about 36,000 new infections each year. Chronic liver disease is the 10th leading cause of death among adults in the United States. Studies indicate 40-60% of this disease is related to HCV, resulting in 8,000 to 10,000 deaths each year. Injecting drug use currently accounts for 60% of HCV infections in the U.S. Other modes of transmission include sexual exposure, shared cocaine straws, occupation, hemodialysis and perinatal.

HCV is not spread by sneezing, hugging, coughing, breast feeding, food or water, sharing eating utensils or drinking glasses, or casual contact. Tattooing and body piercing are not associated with HCV infection. There is no vaccine against hepatitis C.

For additional information you may contact: The Centers for Disease Control and Prevention, Hepatitis Branch (888) 443-7232 or www.cdc.gov, or the Hep C Connection, 1-800-522-HEPC or hepc-connection@worldnet.att.net, or The Hepatitis Foundation,

International 1-800-891-0707.

OH #10: HOW HEPATITIS IS SPREAD

Hepatitis is spread by:

1. Infected person to uninfected person during unprotected anal, vaginal or oral sexual intercourse;
2. Infected IV drug users when they share needles and syringes contaminated with their blood, through tattooing with unsterilized equipment;
3. HBV/HCV infected mothers passing the virus to their unborn child;
4. HBV/HCV infected mothers passing the virus through breastmilk;
5. Blood-to-blood transmission when the blood of an infected person enter the bloodstream of an unaffected person through blood transfusions, breaks in the skin or through mucous membranes; and

All early childhood programs should have written policies that address steps that must be taken when a child or adult is bitten by another, and that bite breaks the skin. These steps should include washing the bite with soap and water, placing a cool cloth on the bite, completing the "report" with a copy for the child's file and the parent and placing an immediate call to the parent to recommend the child's health care provider be contacted. If the bitten individual is an adult, the program's plan regarding significant exposure to bloodborne pathogens should be implemented.

- a. Blood will not show positive for HBV or HCV during the incubation period of 1-12 weeks after exposure and only a blood test can distinguish between the different types of hepatitis. A positive test occurs 2-6 weeks after symptoms begin. The signs and symptoms of types of hepatitis are virtually the same.
- b. Hepatitis B vaccine is now a routine immunization for children and is recommended for adults who:
 - 1) Routinely come in contact with blood or other potentially infected body fluids during their work day;
 - 2) Live in a household in which someone is infected;
 - 3) Are sexually active, especially with more than one partner
 - 4) Use needles to inject drugs.

OH #11: HOW ARE HBC, HCV and HIV SIMILAR AND HOW ARE THEY DIFFERENT

Now let's go over some bloodborne transmission risks and interventions in the early childhood classroom or home:

The infection control procedures for child care programs when a known HIV/AIDs or HBV/HCV infected individual is in your program are the same procedures that should **ALWAYS** be in place for the safety of all individuals, whether or not an HIV/AIDS or HBV/HCV infected person is in the program. Actually, having a child or children in your program with HIB or HBV/HCV infection may make the staff more conscious of using universal precautions.

OH # 12: UNIVERSAL PRECAUTIONS - COMPONENTS

The principles of infection control remain constant, whether HIV, HBV, HCV or other infectious agents are the cause for concern. The components of Universal Precautions include:

1. Personal protective equipment, e.g., wearing gloves, gowns, eye protection and other protective gear;
2. Handwashing,
3. Decontamination, e.g., appropriate cleaning methods to decontaminate surfaces, objects, etc.; and
4. Waste disposal, e.g., liquid or non-liquid form, double bagging and labeling.

OH # 13: TREAT ALL HUMAN BLOOD AND POTENTIALLY INFECTIOUS BODY FLUIDS AS CONTAGIOUS

1. Treat all human blood and potentially infectious body fluids as if they are known to contain bloodborne pathogens. Those potentially infectious body fluids are:

OH: #14: POTENTIALLY INFECTIOUS BODY FLUIDS

- a. blood
 - b. vaginal secretions
 - c. semen
 - d. any body fluid that you can't identify
 - e. fluid that has visible blood present
2. Precaution should be taken when handling stool, urine, nasal secretions and vomitus.

Instructor's Note:

Before putting up the next 2 overheads, give the participants an opportunity to respond to the following two questions.)

What are some tasks in child care that may pose a risk to infection with bloodborne pathogens?

OH #15: EXPECTED RESPONSES

Expected Responses: Bleeding injuries, biting, loose tooth, changing band-aids or dressings, handling breast milk, any task that involves visible blood, and performing CPR.

The following is a note to assist in answering questions:

1. *Biting is not a common way of transmitting HIV. In fact, there are numerous reports of bites that did not result in HIV infection. This information is from the Center for Disease Control (CDC) fact sheet, HIV and It's Transmission, 1997.*
2. *Although Universal Precautions do not apply to human breast milk, gloves may be worn by health care workers in situations where exposure to breast milk might be frequent, e.g., in breast milk banking. CDC, May '95.*
3. *Saliva, tear and sweat: HIV has been found in saliva and tears in very low quantities from some AIDS patients. It is important to understand that finding a small amount of HIV in a body fluid does not necessarily mean that HIV can be transmitted by that body fluid. HIV may not be recovered from the sweat of HIV infected persons. Contact with saliva, tears or sweat has never been shown to result in transmission of HIV.*

What are some ways to protect yourselves while performing these tasks?

OH #16: EXPECTED RESPONSES

Expected Responses: Wearing gloves, washing hands, using bleach or other approved disinfecting solutions, using available resuscitation masks (CPR).

OH #17: HAND WASHING

The second component of Universal Precautions is Handwashing. Handwashing is one of the most important defense against the spread of infectious disease.

Children's hands and adult's hands should always be washed with soap and running water following contact with blood or other potentially infectious body secretions, as described above, even if gloves have been used for the task.

Do remember that handwashing is the most effective way to reduce the spread of disease.

Let's take a few minutes to review the method of handwashing:

Use soap. Liquid is best and warm running water.

Rub hands together vigorously for at least 30 seconds.

Remember all surfaces including thumbs, wrists, back of hands, between fingers and around and under nails.

Rinse hands well, letting water drain from wrists to fingers - don't turn off faucet.

Dry hands with paper towel, then use same towel to turn off faucet.

Discard towel.

Remember, the use of bar soap is discouraged as bacteria can grow on the bar and the soap dish.

Products such as moistened towelettes and antiseptic hand cleaners do not replace the need for handwashing as soon as possible following exposure. Antiseptic hand cleaners are effective alternatives if running water is not available, e.g., field trips.

OH #18: ALWAYS WASH HANDS

Remember: The times to always wash hands are:

When you arrive at the child care center
Before and after giving medications
Before beginning care/first aid
Before and after using the bathroom
In-between delivery of care/first aid
Before handling clean equipment and after handling dirty equipment
Before and after eating
Before handling food
Before leaving the building.

OH #19: PERSONAL HYGIENE

Personal hygiene as well as eating or drinking should not take place where there is a possibility of exposure. There should be no eating, drinking, smoking, applying make-up, handling contact lenses, etc, in areas in which first aid is provided.

OH #20: PERSONAL PROTECTIVE EQUIPMENT

This equipment always includes disposable latex or vinyl gloves that should be worn only once. Staff members allergic to latex gloves will have alternative gloves available for their use.

Additional protective equipment, e.g., masks, aprons, gowns, face shields may be required in a program serving special needs children whose care requires suctioning, catheter care, nasogastric or gastric feeding tubes. Gloves must be provided in each classroom and diaper changing area, with first aid supplies and on transportation vehicle(s). **Gloves must be discarded after one use. NEVER use gloves twice.** Hands must be washed each time gloves are discarded.

Instructor's Note: This is a good time to demonstrate how to remove gloves.

OH #21: SHARPS

All sharps must be disposed of in a container that is closeable, puncture resistant, leak proof on sides and bottom and labeled with a biohazard label or color-coded red. All needles, broken glass, etc, should be discarded into this container.

Needles or other contaminated sharps will not be bent, recapped, removed or purposely broken.

Sharps containers should be located in areas away from children's reach.

OH #22: BLEACH SOLUTIONS

All surfaces, especially those contaminated with visible blood or other potentially infectious body fluid should be washed and disinfected immediately with a solution consisting of 1 part bleach to 10 parts water. Wear gloves and use paper towels during this procedure.

The 1:10 bleach solution is the solution most often recommended for the decontamination of surfaces because it is effective, inexpensive and readily available.

Carpets contaminated with blood or other body fluids are satisfactorily decontaminated with standard carpet-cleaning chemicals.

OH #23: LAUNDRY PROCEDURES

Clothing and linens stained with blood should be handled with gloves and placed in a plastic bag and labeled and color-coded in accordance with OSHA regulations, until they can be laundered in hot, soapy water. Appropriate personal equipment should be worn when laundering contaminated laundry. Responsibility for laundering these items may vary, e.g., parents, program, or a professional laundry may do them.

1. The employer is responsible for cleaning employees contaminated clothing at no expense to the employee.
2. The child's clothing needs to be double plastic bagged and sent home.
3. Center items may be laundered at the center or at a laundromat.

Launder in hot water (165°) for 25 minutes. If using cooler water, add bleach or other laundry disinfectant according to the instructions on the container.

WASTE DISPOSAL

Items that are visibly contaminated or are potentially infectious, must be disposed of in a separate sealed, double plastic bag before being discarded. The location of your program may determine the steps for appropriate waste disposal.

Regulated (bio-hazardous) waste is defined as:

1. *Liquid or semi-liquid blood or other potentially infectious material;*

2. *Contaminated items that would release blood and other potentially infectious materials if compressed;*
3. *Items caked with dried blood or other potentially infectious material that are capable of releasing these materials during handling; and*
4. *Contaminated sharps (needles, broken glass contaminated with blood.)*

OH #24: TWO TYPES OF WASTE

There are two types of waste that need special attention. Early childhood programs usually generate an amount of “contaminated waste” that is not regulated.

1. Contaminated waste includes: diapers, sanitary napkins, used band-aid (not saturated with blood), discarded gloves or other personal protective equipment (not saturated with blood), vomit, etc.

Contaminated waste should be double-bagged in plastic, and disposed of in covered trash containers that are not accessible to children.

2. Regulated (bio-hazardous) waste includes items that are saturated with fluids containing blood, or items caked with dried blood. This waste must be placed in special containers, and handled by a hazardous waste disposal company.

In all cases, follow local regulations carefully concerning disposal procedures.

Now we are going to consider what happens following an exposure to blood or other potentially infectious materials.

All programs should have policies in place to provide guidance in the event significant exposure to potentially infected blood or body fluid has occurred to an adult or child. These policies should include the following:

Hepatitis B vaccination must be offered to an employee within 24 hours following a first aid incident in which blood or other body fluids were present. If the employee refuses, the employee must sign a form declining the offer of the Hepatitis B vaccine. (See sample Declination handout form).

OH #25: WHAT IS AN EXPOSURE INCIDENT

An Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin or parental (needle or sharp object) with blood or other potentially infectious material that result from the performance of an employee’s duties.

OH #26: AFTER EXPOSURE

Responsibilities and procedures after a significant exposure to blood or other potentially infectious materials include:

1. Wash the affected area and remove contaminated clothing;
2. Protect others from exposure (cleanup, decontaminate, and follow disposal procedures);
3. Report the event to your supervisor as soon as possible.
4. Seek medical care within 2 hours if the exposure warrants.
5. The physician/clinician will determine significance of the exposure as well as dictate follow-up medical care.
6. If consent for testing is obtained from the source of the exposure, only the physician and exposed worker are entitled to those results.
7. Confidentiality of the source and exposed worker must be maintained.
8. Document the exposure before the end of the day;

Documentation of the exposure must include: the name of the individual, date and time of the exposure, type of exposure, what happened and, if it is not prohibited by local or state regulations, the name of the person whose blood (body fluid) was the source of the exposure. Suggestions that might help to prevent a future accident of this kind should be documented at this time. (See sample Exposure handout).

9. Provide the healthcare professional with information and secure a confidential medical evaluation if necessary; and
10. Provide the health care professional's written opinion.

Confidentiality will be maintained. Medical records will be kept confidential.

Remember, in order for Universal Precautions to be effective, it must be practiced as a matter of routine, not only in particular situations. All staff must be instructed annually in the procedures used by their program, and monitored on their application on a regular basis.

OH #27 : OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

The Occupational Safety and Health Administration (OSHA) is a division of the US Department of Labor. OSHA regulates workplace health and safety standards. Bloodborne pathogen standards are included in OSHA regulation and early childhood staff are protected by these standards.

OSHA bloodborne pathogen standards include the requirement for training of all individuals who may have contact with blood and other potentially infectious materials during the course of their jobs.

OSHA does not specifically identify all occupations considered to be at risk for exposure. Risk determination is often left to the discretion of the employer.

Training is to be provided by the employer prior to the new employees first assignment and every year during work hours. The training is to familiarize staff with signs and symptoms of bloodborne diseases, e.g., HIV/AIDS and Hepatitis B and is to include review of site policies and procedures that address potential bloodborne pathogen exposure.

All programs should have an exposure control plan to guide them in an exposure to blood or other potentially infectious material occurs. This plan needs to be part of the training.

Training records must include;

1. Dates of training sessions
2. Summary of training sessions
3. Names and qualifications of persons conducting trainings
4. Names and job titles of those attending trainings.
5. Records must be maintained for 3 years from the date of training

POST-EXPOSURE INCIDENT REPORT

Date of Report _____

Name: _____ Social Security No _____

Date of Exposure _____ **Time** _____

Describe Incident: Include what employee(s) task/activities performed at time of incident

Blood or other body fluids involved? Describe type and source.

Personal Protective Equipment used by those providing first aid?

gloves mask gown other _____ None used

Did an exposure incident occur? Yes No

(An exposure incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parental(needle or other sharp object) with blood or other potentially infectious material that result from the performance of an employee's duties).

If yes, please describe:

Employee Previously Vaccinated Against Hepatitis B Virus: Yes No

DATE: (1) _____ (2) _____ (3) _____

If NO, was Hepatitis B Series Offered? Yes No

What steps could be taken to prevent this incident from happening again?

Person completing this form: _____

Follow up: _____

HEPATITIS B VACCINE

Hepatitis B vaccine must be offered to an employee with 24 hours following a first aid incident in which blood or other body fluids were present unless the employee has previously had the vaccine or who wishes to submit to antibody testing which shows the employee to have sufficient immunity.

Employees who decline the Hepatitis B vaccine will sign a waiver that uses the wording in Appendix A of the OSHA standard.

Employees who initially decline the vaccine but who later wish to have the vaccine provided at no cost. The vaccine will be administered by _____.

Exceptions to offering vaccine:

1. Previously vaccinated.
2. Screening testing reveals person is immune.
3. Contraindicated for medical reasons.

The following information on Hepatitis B vaccine will be distributed to all identified employees annually and upon initial employment.

HEPATITIS B REQUEST/DECLINATION

____ I hereby request the series of Hepatitis B vaccine injections

____ I hereby decline this series as I:

- a. have previously received the series of Hepatitis vaccine injections.
- b. have a positive antibody titer.
- c. should not receive the Hepatitis B vaccine for medical reasons.

____ I hereby decline the Hepatitis vaccine injections.

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) infections. I have been given the opportunity to be vaccinated with Hepatitis B, at no charge to myself. However, I decline this vaccine 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.

SIGNED _____
 (Employee) (Date)

ON: _____

 Print Name

BLOOBORNE FACTS

**PROTECT YOURSELF WHEN
HANDLING SHARPS**

A needlestick or a cut from a contaminated scalpel can lead to infection from hepatitis B virus (HBV) or human immunodeficiency virus (HIV) which causes AIDS. Although few cases of AIDS have been documented from occupational exposure, approximately 8,700 health care workers each year contract hepatitis B. About 200 will die as a result.

The new OSHA standard covering bloodborne pathogens specifies measures to reduce these risks of infection.

PROMPT DISPOSAL

The best way to prevent cuts and sticks is to minimize contact with sharps. That means disposing of the immediately after use. Puncture-resistant containers must be available nearby to hold contaminated sharps—either for disposal or, for reusable sharps, later decontamination for re-use. When reprocessing contaminated reusable sharps, employees must not reach by hand into the holding container. Contaminated sharps must never be sheared or broken.

Recapping, bending, or removing needles is permissible only if there is no feasible alternative or if required for a specific medical procedure such as blood gas analysis. If recapping, bending or removal is necessary, workers must use either a mechanical device or a one-handed technique. Employees might recap with a one-handed “scoop” technique, using the needle itself to pick up the cap, pushing cap and sharp together against a hard surface to ensure a tight fit. Or they might hold the cap with tongs or forceps to place it on the needle.

SHARPS CONTAINERS

Containers for used sharps must be puncture resistant. The sides and the bottom must be leakproof. They must be labeled or color coded red to ensure that everyone knows the contents are hazardous. Containers for disposable sharps must have a lid, and they must be maintained upright to keep liquids and the sharps inside.

Employees must never reach by hand into containers of contaminated sharps. Containers for reusable sharps could be equipped with wire basket liners for easy removal during reprocessing, or employees could use tongs or forceps to withdraw the contents. Reusable sharps disposal containers may not be opened, emptied or cleaned manually.

Containers need to be located as near to as feasible the area of use. In some cases, they may be placed on carts to prevent access to mentally disturbed or pediatric patients. Containers also should be

available wherever sharps may be found, such as in laundries. The containers must be replaced routinely and not be overfilled, which can increase the risk of needlesticks or cuts.

HANDLING CONTAINERS

When employees are ready to discard containers, they should first close the lids. If there is a chance of leakage from the primary container, the employees should use a secondary container that is closable, labeled or color coded and leak resistant.

Careful handling of sharps can prevent injury and reduce the risk of infection. by following these work practices, employees can decrease their chances of contracting bloodborne illness.

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BLOODBORNE FACTS

REPORTING EXPOSURE INCIDENTS

OSHA's new bloodborne pathogens standard provides for medical follow-up for workers who have an exposure incident. The most obvious exposure incident is a needlestick. But any specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials is considered an exposure incident and should be reported to the employer.

Exposure incidents can lead to infection from hepatitis B or human immunodeficiency virus which causes AIDS. Although few cases of AIDS are directly traceable to workplace exposure, every year about 8,700 health care workers contract hepatitis B from occupational exposures. Approximately 200 will die from this bloodborne infection. Some will become carriers, passing the infection on to others.

WHY REPORT?

Reporting right away permits immediate medical follow-up and early action is crucial. Immediate intervention can forestall the development of hepatitis B or enable the affected worker to track potential HIV infection. Prompt reporting also can help the worker avoid spreading bloodborne infections, enable the employer to evaluate the circumstances surrounding the exposure incident to try to find ways to prevent such a situation from occurring again.

Reporting is also important because part of the follow-up includes testing the blood of the source individual to determine HBV and HIV infectivity if this is unknown and if permission for testing can be obtained. The exposed employee must be informed of the results of these tests. Employers must tell the employee what to do if an exposure incident occurs.

MEDICAL EVALUATION AND FOLLOW-UP

Employers must provide free medical evaluation and treatment to employees who experience an exposure incident. They are to refer exposed employees to a licensed health care provider who will counsel the individual about what happened and how to prevent further spread of any potential infection. He/she will prescribe appropriate treatment in line with current U.S. Public Health Service recommendations. The licensed health care provider also will evaluate any reported illness to determine if the symptoms may be related to HIV or HBV development.

The first step is to test the blood of the exposed employee. Any employee who wants to participate in the medical evaluation program must agree to have blood drawn.

for 90 days in case the employee changes his/her mind about testing--should symptoms develop that might relate to HIV or HBV infection.

The health care provider will counsel the employee based on the test results. If the source individual was HBV positive or in a high risk category, the exposed employee may be given hepatitis B immune globulin and vaccination, as necessary. If there is not information on the source individual or the test is negative, and the employee has not been vaccinated or does not have immunity bases on her/his test, he/she may receive the vaccine. Further, the health care provider will discuss any other findings from the tests.

The standard requires that the employer make the hepatitis B vaccine available, at no cost to the employee, to all employees who have occupational exposure to blood and other potentially infectious materials. This requirement is in addition to post-exposure testing and treatment responsibilities.

WRITTEN OPINION

In addition to counseling the employee, the health care provider will provide a written report to the employer. This report simply identifies whether hepatitis B vaccine was recommended for the exposed employee and whether or not the employee received the vaccine. The health care provider also must note that the employee has been informed of the results of the evaluation and told of any medical conditions resulting from exposure to blood which require further evaluation or treatment. Any added findings must be kept confidential.

CONFIDENTIALITY

Medical records must remain confidential. They are not available to the employer. The employer must give specific written consent for anyone to see the records. Records must be maintained for the duration of employment plus 30 years in accordance with OSHA's standard on access to employee exposure and medical records.

US Department of Labor

Occupational Safety and Health Administration

However, the employee has the option to give the blood sample but refuse permission for HIV testing at that time. The employer must maintain the employee's blood sample

BLOODBORNE FACTS

PERSONAL PROTECTIVE EQUIPMENT CUTS RISK

Wearing gloves, gowns and eye protection can significantly reduce health risks for workers exposed to blood and other potentially infectious materials. The new OSHA standard covering bloodborne disease requires employers to provide appropriate personal protective equipment (PPE) and clothing free of charge to employees.

Workers who have direct exposure to blood and other potentially infectious materials on their jobs run the risk of contracting bloodborne infections from hepatitis B virus (HBV), human immunodeficiency virus (HIV) which causes AIDS, and other pathogens. About 8,700 health care workers each year are infected with HBV, and 200 die from the infection. Although the risk of contracting AIDS through occupational exposure is much lower, wearing proper PPE can greatly reduce potential exposure to all bloodborne infections.

SELECTING PPE

Personal protective clothing and equipment must be suitable. This means the level of protection must fit the expected exposure. For example, gloves would be sufficient for a laboratory technician who is drawing blood, whereas a pathologist conducting an autopsy would need considerably more protective clothing.

Personal protective equipment may include gloves, gowns, laboratory coats, face shields or masks, eye protection, pocket masks, and other protective gear. The gear must be readily accessible to employees and available in appropriate sizes.

If an employee is expected to have hand contact with blood or other potentially infectious materials or contaminated surfaces, he/she must wear gloves. Single use gloves cannot be washed or decontaminated for reuse. Utility gloves may be decontaminated if they are not compromised. They should be replaced when they show signs of cracking, peeling, tearing, puncturing or deteriorating. If employees are allergic to standard gloves, the employer must provide hypoallergenic gloves or similar alternatives.

Routine gloving is not required for phlebotomy in voluntary blood donation centers, although it is necessary for all other phlebotomies. In any case, gloves must be available in voluntary blood donation centers for employees who want to use them. Workers in voluntary blood donation centers must use gloves (1) when they have cuts, scratches or other breaks in their skin; (2) while they are in training; and (3) when they believe contamination might occur.

Employees should wear eye and mouth protection such as goggles and masks, glasses with solid side shields, and masks or chin-length face shields when splashes, sprays, splatters or droplets of potentially infectious materials pose a hazard

AVOIDING CONTAMINATION

The key is that blood or other infectious materials must not reach an employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions for the duration of exposure.

Employers must provide the personal protective equipment and ensure that their workers wear it. This means that if a lab coat is considered personal protective equipment, it must be supplied by the employer rather than the employee. The employer also must clean or launder clothing and equipment and repair or replace it as necessary.

Additional protective measures such as using PPE in animal rooms and decontaminating PPE before laundering are essential in facilities that conduct research on HIV or HBV.

EXCEPTION

There is one exception to the requirement for protective gear. An employee may choose, temporarily and briefly, under rare and extraordinary circumstances, to forego the equipment. It must be the employee's professional judgement that using the personal protective equipment would prevent the delivery of health care or public safety service or would pose an increased hazard to the safety of the worker or co-worker. When one of these excepted situations occurs, employers are to investigate and document the circumstances to determine if there are ways to avoid it in the future. For example, if a firefighter's resuscitation device is damaged, perhaps another type of device should be used or the device should be carried in a different manner. Exceptions must be limited--this is not a blanket exemption.

DECONTAMINATING AND DISPOSING OF PPE

Employees must remove personal protective clothing and equipment before leaving the work area or when the PPE becomes contaminated. If a garment is penetrated, workers must remove it immediately or as soon as feasible. Used protective clothing and equipment must be placed in designated containers for storage, decontamination, or disposal.

OTHER PROTECTIVE PRACTICES

If an employee's skin or mucous membranes come into contact with blood, he or she is to wash with soap and water and flush eyes with water as soon as possible. In addition, workers must wash their hands immediately or as soon as feasible after removing protective equipment. If soap and water are not immediately available, employers may provide other handwashing measures such as moist towelettes. Employees still must wash with soap and water as soon as possible.

Employees must refrain from eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses in areas where they may be exposed to blood or other potentially infectious materials.

BLOODBORNE FACTS

HEPATITIS B VACCINATION -- PROTECTION FOR YOU

What is HBV?

Hepatitis B virus (HBV) is a potentially life-threatening bloodborne pathogen. Centers for Disease Control estimates there are approximately 280,000 HBV infections each year in the U.S.

Approximately 8,700 health care workers each year contract hepatitis B, and about 200 will die as a result. In addition, some who contract HBV will become carriers, passing the disease on to others. Carriers also face a significantly higher risk for other liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer.

HBV infection is transmitted through exposure to blood and other infectious body fluids and tissues. Anyone with occupational exposure to blood is at risk of contracting the infection.

Employers must provide engineering controls; workers must use work practices and protective clothing and equipment to prevent exposure to potentially infectious materials. However, the best defense against hepatitis B is vaccination.

WHO NEEDS VACCINATIONS?

The new OSHA standard covering bloodborne pathogens requires employers to offer the three-injection vaccination series free to all employees who are exposed to blood or other potentially infectious materials as part of their job duties. This includes health care workers, emergency responders, morticians, first-aid personnel, law enforcement officers, correctional facilities staff, launderers, as well as others.

The vaccination must be offered within 10 days of initial assignment to a job where exposure to blood or other potentially infectious materials can be "reasonably anticipated." The requirements for vaccinations of those already on the job take effect July 6, 1992.

WHAT DOES VACCINATION INVOLVE?

The hepatitis B Vaccination is a non-infectious, yeast-based vaccine given in three injections in the arm. It is prepared from recombinant yeast cultures, rather than human blood or plasma. Thus, there is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine.

The second injection should be given one month after the first, and the third injection six months after the initial dose.

More than 90% of those vaccinated will develop immunity to the hepatitis B virus. To ensure immunity, it is important for individuals to receive all three injections. At this point it is unclear how long the immunity lasts, so booster shots may be required at some point in the future.

The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although employees may opt to have their blood tested for antibodies to determine need for the vaccine, employers may not make antibody screening a condition of receiving vaccination nor are employers required to provide prescreening.

WHAT IF I DECLINE VACCINATION?

Workers who decide to decline vaccination must complete a declination form. Employers must keep these forms on file so that they know the vaccination status of everyone who is exposed to blood. At any time after a worker initially declines to receive the vaccine, he or she may opt to take it.

WHAT IF I AM EXPOSED BUT HAVE NOT YET BEEN VACCINATED?

If a worker experiences an exposure incident, such as a needlestick or a blood splash in the eye, he/she must receive confidential medical evaluation from a licensed health care professional with appropriate follow-up. To the extent possible by law, the employer is to determine the source individual for HBV as well as HIV infectivity. The worker's blood will also be screened if he or she agree.

The healthcare professional is to follow the guidelines of the U.S. Public Health Service in providing treatment. This would include hepatitis B vaccination. The health care professional must give a written opinion on whether the employee received it. Employee medical records must remain confidential. HIV or HBV status must NOT be reported to the employer.

***U.S. Department of Labor
Occupational Safety and Health Administration***

BLOODBORNE FACTS

Holding the Line on Contamination

Keeping work areas in a clean and sanitary condition reduces employee's risk of exposure to bloodborne pathogens. Each year about 8,700 health care workers are infected with hepatitis B virus, and 200 die from contracting hepatitis B through their work. The chance of contracting human immunodeficiency virus (HIV), the bloodborne pathogen which causes AIDS, from occupational exposure is small, yet a good housekeeping program can minimize this risk as well.

DECONTAMINATION

Every employer whose employees are exposed to blood or other potentially infectious materials must develop a written schedule for cleaning each area where exposures occur. The methods of decontaminating different surfaces must be specific, determined by the type of surface to be cleaned, the soil present and the tasks or procedures that occur in that area.

For example, different cleaning and decontamination measures would be used for surgical operatory and a patient room. Similarly, hard surfaced flooring and carpeting require separate cleaning methods. More extensive efforts will be necessary for gross contamination than for minor spattering. Likewise, such varied tasks as laboratory analyses and normal patient care would require different techniques for clean-up.

Employees must decontaminate working surfaces and equipment with an appropriate disinfectant after completing procedures involving exposure to blood. Many laboratory procedures are performed on a continual basis throughout a shift. Except as discussed below, it is not necessary to clean and decontaminate between procedures. However, if the employee leaves the area for a period of time, for a break or lunch, then contaminated work surfaces must be cleaned.

Employees also must clean (1) when surfaces become obviously contaminated; (2) after any spill of blood or other potentially infectious materials; and (3) at the end of the work shift is contamination might have occurred. Thus, employees need not decontaminate the work area after each patient care procedure, but only after those that actually result in contamination.

If surfaces or equipment are draped with protective coverings such as plastic wrap or aluminum foil, these coverings should be removed or replaced if they become obviously contaminated. Reusable receptacles such as bins, pails and cans that are likely to become contaminated must be inspected and decontaminated on a regular basis. If contamination is visible, workers must clean and decontaminate the item immediately, or as soon as feasible.

Should glassware that may be potentially contaminated break, workers need to use mechanical means such as a brush and dustpan or tongs or forceps to pick up the broken glass - never by hand, even when wearing gloves.

Before any equipment is serviced or shipped for repairing or

cleaning, it must be decontaminated to the extent possible. The equipment must be labeled, indicating which portions are still contaminated. This enables employees and those who service the equipment to take appropriate precautions to prevent exposure.

REGULATED WASTE

In addition to effective decontamination of work areas, proper handling of regulated waste is essential to prevent unnecessary exposure to blood and other potentially infectious materials. Regulated waste must be handled with great care, e.g., liquid or semi-liquid blood and other potentially infectious materials, items caked with these materials, items that would release blood or other potentially infected materials if compressed, pathological or microbiological wastes containing them and contaminated sharps

Containers used to store regulated waste must be closeable and suitable to contain the contents and prevent leakage of fluids. Containers designed for sharps also must be puncture resistant. They must be labeled or color-coded to ensure that employees are aware of the potential hazards. Such containers must be closed before removal to prevent the contents from spilling. If the outside of a container becomes contaminated, it must be placed within a second suitable container.

Regulated waste must be disposed of in accordance with applicable state and local laws.

LAUNDRY

Laundry workers must wear gloves and handle contaminated laundry as little as possible, with a minimum of agitation. Contaminated laundry should be bagged or placed in containers at the location where it is used, but not sorted or rinsed there.

Laundry must be transported within the establishment or to outside laundries in labeled or red color-coded bags. If the facility uses Universal Precautions for handling all soiled laundry, then alternate labeling or color coding that can be recognized the employees may be used. If laundry is wet and it might soak through laundry bags, the workers must use bags that prevent leakage to transport it.

RESEARCH FACILITIES

More stringent decontamination requirements apply to research laboratories and production facilities that work with concentrated strains of HIV and HBV.

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	HEPATITIS B (HBV)	HEPATITIS C (HCV)	HIV/AIDS
VIRUS	Stable	Stable	Fragile
INCIDENCE	World-Wide	World-Wide	World-Wide
HIGH-RISK	IV Drug Users Homosexual Heterosexual & Multiple Partners	IV Drug Users, Alcoholics Anyone who has had a blood transfusion before 1992 Multiple sex partners	IV Drug Users Homosexual Heterosexual & Multiple Partners
COMMUNICABILITY	15 x Greater than AIDS	Highly communicable - 10 th leading cause of death	
COMPLICATIONS	Cirrhosis Predisposition to liver cancer Jaundice Death	Liver Inflammation Cirrhosis Cancer	Persistent cold/flu like symptoms Opportunistic diseases Death
TRANSMISSION	Blood/Blood Products Semen, vaginal secretions	Blood/Blood Products NOT easily spread through sex	
INCUBATION	2-6 Months 1/3 = no symptoms - carriers virus shed in 6 mos. 1/3 = some symptoms - carriers 1/3 = full-blown disease develops	2-25 weeks. Average 7 to 9 weeks	3-6 Months HIV Positive (8-15 yrs) AIDS
SYMPTOMS	Fever Anorexia Rash Joint Pain	Same as HBV	Mono-like symptoms Anorexia Night sweats Fatigue
COMPLICATIONS	Cirrhosis Predisposition to liver cancer Jaundice Death	Liver Inflammation Cirrhosis Cancer	Persistent cold/flu like symptoms Opportunistic diseases Death
VACCINE	Yes	No	No
PRECAUTIONS	Environmental safeguards Education Personal Protective Equipment Universal Precautions Vaccine	Safe sex Environmental safeguards Education Personal Protective Equipment Universal Precautions	Environmental safeguards Education Personal Protective Equipment Universal Precautions