Bloodborne Pathogens Exposure Control Program
CFR 1910.1030
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Purpose

1. For employees in certain industries, exposure to serious illnesses from contact with human blood and other body fluids is a cause for concern. These industries include most occupations in the health care field, law enforcement and those where employees maybe in direct contact with individuals at risk. For this reason, the Occupational Safety and Health Administration (OSHA) developed the Bloodborne Pathogen Standard, 29 CFR 1910.1030, which seeks to protect Union College employees in these fields from exposure. It is the policy of Union College to minimize the exposure of all employees to communicable bloodborne pathogens.

Scope

1. All employees and those working on behalf of Union College are required to comply with the contents of this program. This program complies with all local, state and all federal regulations. Employees may not deviate or alter this program unless authorized by the Union College Office of Environmental Health and Safety. Failure to comply with this program may result in disciplinary action up to termination of employment.

Definitions

1. Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.


3. Bloodborne Pathogens means 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 (HCV) and human immunodeficiency virus (HIV).

4. Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

5. Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

6. Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

7. Contaminated Sharps means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

8. Decontamination means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on the surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.

9. Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

10. 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.
11. **Exposure Incident** means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of the employee’s duties.

12. **Hand-washing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

13. **HBV** means Hepatitis B virus.

14. **HCV** means Hepatitis C Virus.

15. **HIV** means Human immunodeficiency virus.

16. **Licensed Healthcare Professional** is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B vaccination and Post-exposure Evaluation and Follow-up.

17. **Needleless Systems** means a device that does not use needles for:

   (a) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (b) The administration of medication or fluids; or (c) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

18. **Occupational Exposure** means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.

19. **Other Potentially Infectious Materials (OPIM)** means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any bodily fluid that is visibly contaminated with blood, and in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV or HCV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV, HBV or HCV.

20. **Parenteral** means piercing mucous membranes or the skin barrier through such as needle-sticks, human bites, cuts and abrasions.

21. **Personal Protective Equipment** is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts are not intended to function as protection against a hazard and are not considered to be personal protective equipment.

22. **Regulated Waste** means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

23. **Research Laboratory** means a laboratory producing or using research-laboratory-scale amounts of HIV, HBV, or HCV. Research laboratories may produce high concentrations of HIV, HBV or HCV but not in the volume found in production facilities.
24. **Sharps with engineered sharps injury protections** means a non-needle 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 reduce the risk of an exposure incident.

25. **Source Individual** means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

26. **Sterilize** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

27. **Universal Precautions** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, HCV and other bloodborne pathogens.

28. **Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

**Types of Bloodborne Pathogens**

OSHA is particularly concerned with two types of bloodborne pathogens:

1. **Hepatitis “B” Virus (HBV)** - HBV is a virus that causes inflammation of the liver and can live in spills of blood up to one week. It is sometimes fatal in itself, but otherwise greatly increases the risk of other possibly fatal liver diseases such as cirrhosis and cancer. Some people will not exhibit any symptoms at all, while some have mild flu-like symptoms, dark urine, light stools, jaundice, fatigue and fever. Treatment: HBV has a vaccine that can be taken in three separate injections. The first injection comes as soon as possible after an exposure, the second shot is taken thirty days after the first, and the third injection is taken six months after the first. More information on the Hepatitis B vaccination can be found in Appendix A.

2. **Human Immunodeficiency Virus (HIV)** – HIV is a virus that attacks the body’s immune system, reducing its ability to fight disease. Having HIV in itself is not fatal, but HIV causes AIDS, which is generally considered fatal. People can carry it for years without any symptoms, or even realizing that they are carrying it. Possible symptoms include weight loss, skin spots, nausea and vomiting. Currently, there is no known cure for HIV.

3. **Hepatitis “C” Virus (HCV)** - is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver. It results from infection with the Hepatitis C virus (HCV), which is spread primarily through contact with the blood of an infected person. Hepatitis C can be either “acute” or “chronic.”

**Exposure**

1. Employees who have designated occupational health care responsibilities are considered at risk; and employees whose duties may expose them to infected blood or other body fluids are considered at risk and are included in the Bloodborne Pathogen Exposure Control Plan.

2. These employees are expected to follow a certain approach to avoid exposure. This approach is called **Universal Precautions**. This means treating all blood and bodily fluids as though they are infected with HIV, HBV and HCV. This in turn means taking all precautions necessary to avoid direct contact.
**Modes of Transmission**
The chances of actually contracting these viruses are very small. The most common means of transmission include:

1. Any procedures, such as the emergency management of injuries that could result in potential exposure
2. First aid treatment areas.
3. Direct contact between infected body fluid and broken skin.
4. Sexual contact with an infected individual.
5. Sharing drug needles with someone who is infected.

**Exposure Control**
Any and all releases of bodily fluids in the work environment must be reported to a supervisor immediately. Appropriate treatment for the injury must be sought.

1. If it is a serious or life-threatening injury, ambulatory service should be notified. The contaminated area should be roped off from the employee or customer use and bio hazard signs must be hung to warn employees or customers of the potential danger. Then, the area should be cleaned and disinfected thoroughly.
2. Employees who suffer minor injuries (cuts) must properly treat those injuries by seeking first aid. The immediate work area and/or tools must be cleaned and disinfected.

**Personal Protective Equipment**
Union College is responsible for providing all necessary and appropriate personal protective equipment (PPE), and will assure that such equipment is readily accessible. When there is a potential for exposure to blood or other potentially infectious body fluids, an employee shall use all the appropriate protective equipment such as, but not limited to:

1. Employees must wear eye protection and masks whenever splashes, spray, droplets, or aerosols of blood or other potentially infectious materials of potential eye, nose or mouth contamination are possible.
2. Employees will wear a gown or apron to cover the employee’s clothes from contamination of the potential biohazard.
3. Rescuers will wear shoe covers over the shoes to prevent potentially infectious bodily fluids from contaminating your shoes and being spread to other areas such as your van or home.
4. Gloves shall be worn when the potential exists for the employee’s hands to have direct skin contact with potentially infectious bodily fluids, mucous membranes, non-intact skin, and when handling contaminated items or soiled surfaces.
   - Disposable, single-use gloves shall be replaced as soon as possible when visibly soiled, torn, punctured, or when their ability to function as a barrier is compromised. Disposable gloves shall never be washed or disinfected for reuse.
Utility gloves may be disinfected for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, discolored, torn, or punctured.

5. PPE can be found in the onsite biohazard kits in each on-site office or in the BIO HAZ kits within each vehicle. Union College will repair or replace any required personal protective equipment as needed.

6. All contaminated PPE or equipment shall be removed immediately before leaving work, with all contaminated waste placed in a red biohazard bag. Biohazard bags can be given to local rescue squads for disposal.

7. Protective clothing may be either reusable or disposable, as long as it effectively prevents the pass-through of potentially contaminated bodily fluids. Union College will arrange for the cleaning, laundering, or disposal of college required PPE.

Work Practices

1. Employees must wash their hands immediately or as soon as possible after removal of gloves or other PPE and after hand contact with blood or other potentially infectious materials.

2. At this time, Union College personnel are neither qualified nor equipped to engage in the use of needles at any trauma site. In the event that outside emergency response personnel leave used needles and other sharp objects, the emergency personnel shall be notified to dispose of material immediately and employees are instructed to never handle this material.

3. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in areas where there is a potential for occupational exposure to blood or other potentially infectious materials.

4. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying and aerosolization of these substances.

Environmental Controls & Housekeeping

1. Any appropriate disinfectant along with a 10% bleach solution in water shall be used to clean and disinfect any environmental or working surface that has been contaminated with blood or other potentially infectious material. The office biohazard kits are supplied with proper disinfectant products that are acceptable to use for spills.

2. Any equipment that may become contaminated shall be decontaminated as necessary.

3. All bins, pails, cans and similar receptacles intended for reuse which have a potential for becoming contaminated, should be inspected, cleaned, and disinfected regularly.

4. Broken glassware that may be contaminated shall not be picked up directly with the hands, but shall be picked up using mechanical means only.

5. Warning labels shall be affixed to all containers used to transport infectious waste. The warning label shall include the BIOHAZARD legend.
Hepatitis B Screening

1. Persons considered at risk shall be offered the test for antibody to the HBV surface antigen (HBsAG) using an accredited laboratory. When employees have received the training outlined in this document and within 10 days working days of initial assignment, HBV vaccination shall be offered to all employees occupationally exposed as part of their job duties to blood or other materials potentially infectious for HBV, unless:
   
   a) The employee has had a previous HBV vaccination.
   
   b) Antibody testing has revealed that the employee is immune.
   
   c) The vaccine is contraindicated for medical reasons.

2. If the employee initially declines HBV vaccination, but at a later date, while still employed by Union College covered under this document, decides to accept the HBV vaccine, it shall be provided at that time. The Hepatitis B Consent Form can be found in Appendix A.

3. Should booster doses be recommended at a future date, such booster doses shall be provided. If an employee declines to accept vaccination when offered, she/he will sign the statement on the Union College Hepatitis Declination Form found in Appendix A.

4. An employee who has not received an immunization series with HBV vaccine or who has no detectable antibody to HBsAG is considered susceptible to HBV infection. A Union College selected. physician or healthcare provider shall offer an HBV susceptible employee a college provided Hepatitis B immunization series.

Post-Exposure Evaluation

1. If an employee has a potential mucous-membrane exposure to blood or another potentially infectious bodily fluid, the route and circumstances of exposure should be identified and, if possible, the source material should be tested for the presence of the HIV & HCV antibodies and HBsAG, after obtaining any necessary information consent, using an accredited laboratory. The employee shall be counseled by a licensed physician regarding the risk of HIV infection and shall be advised to report and seek medical evaluation of any acute exposure. All testing and counseling shall be undertaken with confidentiality and at no cost to the employee.

2. If the exposure source material is positive for HIV antibody or is not available for examination, the employee shall be tested six months and one year after the initial test. All testing and counseling shall be undertaken with confidentiality and at no cost to the employee.

3. Following a potential mucous-membrane exposure to blood or another potentially infectious body fluid, a Hepatitis B susceptible employee shall be referred to a Union College selected licensed physician or healthcare provider. The employee shall be evaluated clinically and counseled by the physician regarding the risk of infection. If the exposure source material is positive for HBsAG or is not available for examination, the employee shall also be provided HBV immune globulin within one week of exposure. All testing and counseling shall be undertaken with confidentiality and at no cost to the employee.

4. If the source material is positive for HBsAG or is not available for examination, a previously immunized employee shall be counseled by a licensed physician regarding the infection. The employee shall be evaluated clinically, and tested for antibody to HBsAG. If immunity is inadequate, the employee shall be
offered one dose each of HBV vaccine and immune globulin through the employer’s physician of choice. All test and counseling shall be undertaken with confidentiality and at no cost to the employee.

5. If the source material is negative for HBsAG, a previously immunized employee shall be counseled by a licensed physician regarding the risk of HBV infection and evaluated clinically.

6. For each post-exposure evaluation, Union College shall obtain and provide to the affected employee a written report concerning the physician’s recommendations including:

7. The employee’s ability to receive Hepatitis B vaccine.

8. Medical conditions resulting from exposure to blood or other potentially infectious bodily fluids which require further evaluation or treatment.

9. Specific findings and diagnosis.

10. Union College shall maintain a confidential medical record for each exposed employee. The record shall include the employee’s name and social security number, a copy of the employee’s HBV vaccination records, information concerning the employee’s ability to receive HBV vaccination, and information and data related to any HBV or HIV exposure. Also, the activity the worker was engaged in at the time of exposure, the extent to which appropriate work practices and PPE were used, and a description on the exposure source. This record shall be maintained for at least the duration of employment plus, 30 years.

Other Immunizations

1. Union College recommends the immunization of its employees for non-bloodborne infectious diseases potentially communicable in the workplace.

2. Union College encourages all employees to remain current on tetanus-diphtheria toxic for the initial series and every 10 years for a booster.

3. The college also encourages appropriate immunizations for influenza, measles, and rubella for all employees.

Training

1. Union College will provide training about the prevention of communicable diseases to all employees covered by the 1910.1030 standard. The training program must contain the following elements:

   • Employees must be given access to a copy of the Bloodborne Pathogen Exposure Control Program and its contents must be explained to them.

   • There must be a general discussion of bloodborne disease with special emphasis on the epidemiology, symptomology, and modes of transmission of HIV and HBV.

   • There must be an explanation of the Union College Exposure Control Plan and employees must be told how to obtain a copy of the written plan for their review.
• An explanation of the methods of recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.

• An explanation of engineering, work-practice controls, and PPE; and how these preventative measures will reduce the risk of exposure and the limitations of each of the methods to limit exposure.

• Information must be made available on the types, proper use, location, removal, handling decontamination, and disposal of PPE.

• Information on the Hepatitis B vaccine, its effect, safety, method of Union College administration, benefits, and that it will be offered free of charge to all employees that have possible occupational exposure or responsibilities.

• Information on the appropriate action to take, who to contact in an emergency involving blood or other potentially infectious material.

• Appropriate actions to be taken in an exposure incident, including a method of reporting and the medical follow-up.

• Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.

• An explanation of the BIOHAZARD labels and red bags.

• The trainer will provide a question and answer period. A record of each training session will be kept on file in the appropriate employee’s training record in the Office of Environmental Health and Safety at Union College. Training records must contain the following:
  • Date of training.
  • Content of the training session
  • Name and qualifications of the person conducting the training.
  • Names and job titles of all persons trained.
APPENDIX A

To All employees Exposed to Bloodborne Pathogens

OSHA promulgated the Occupational Exposure to Bloodborne Pathogens standard in order to eliminate, or at least minimize, occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and other Bloodborne Pathogens. OSHA believes that exposure can be minimized or eliminated by using a combination of engineering and work practice controls such as personal protective equipment, training, medical surveillance, and by having exposed employees vaccinated against Hepatitis B. Under the above standard Union College will provide the Hepatitis B vaccine to employees regularly exposed to Bloodborne Pathogens. Please read the below portion carefully, check the appropriate box and sign where indicated then return this letter Union College Office of Environmental Health and Safety no later than ___________________. Failure to return this letter indicates a decline of service.

____ I have never had the Hepatitis B Vaccine but wish to receive it now.

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 the Hepatitis B vaccine, at no charge to myself and wish to receive the Hepatitis Vaccine.

Employee Signature_________________ Print name____________ Date___________

____ I have never had the Hepatitis B Vaccine but wish to decline it now.

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 the Hepatitis B vaccine, at no charge to myself and wish to decline the Hepatitis Vaccine. However, I decline Hepatitis B vaccination at this time. I understand that by declining the vaccine, I continue to be at risk of acquiring Hepatitis B virus, a serious disease. If in the future, if 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.

Employee Signature_________________ Print name____________ Date___________

____ I have already received the Hepatitis B Vaccine and wish to decline it now.

I understand that due to my occupational exposure or 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 the Hepatitis B vaccine, at no charge to myself and wish to decline the Hepatitis Vaccine. I decline Hepatitis B vaccination at this time due to receiving the Hepatitis B vaccine at a previous employer or at birth. I understand the risk of acquiring Hepatitis B Virus, a serious disease with my occupational exposure.

Employees Signature_________________ Print name____________ Date___________

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