

UNIVERSITY OF MINNESOTA



Exposure Control Plan

For

Bloodborne Pathogens and other Potentially Infectious Materials

Revised: May 2018

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I. PURPOSE AND SCOPE

The *Occupational Safety and Health Administration* (OSHA) regulates workplaces where employees may be exposed to bloodborne pathogens and promotes safe work practices to minimize the incidence of disease due to bloodborne pathogens. OSHA enacted the *Bloodborne Pathogen Standard*, 29 CFR 1910.1030 (and 2001 revision to comply with the *Needlestick Safety and Prevention Act*), to reduce/eliminate occupational exposure to hepatitis B virus, hepatitis C virus, human immunodeficiency virus (HIV), and other bloodborne pathogens that employees may encounter in their workplaces.

The University of Minnesota's *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Material* is **not** limited to exposures as defined by the *Bloodborne Pathogen Standard*. This plan covers all employees who may come in contact with bloodborne and all other potential pathogens via any route of transmission.

Additional exposure control information regarding pathogen exposure due to research animal contact can be accessed through [Research Animal Resources](#).

As part of the University's commitment to minimizing employee exposure to all potentially hazardous biological materials, it has developed a policy for [Activities Involving Potentially Hazardous Biological Agents](#).

The University of Minnesota's *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious* is based on the following principles:

- Risk of exposure to pathogenic agents should never be underestimated.
- It is prudent to minimize exposure to all pathogenic organisms.
- All laboratory areas should institute as many engineering and work practice controls as possible to eliminate or minimize exposure to pathogenic organisms.

II. OBJECTIVES

The objectives of this plan are to:

- A. Provide training information and describe procedures designed to prevent or minimize occupational exposure to bloodborne pathogens and other potentially infectious agents.
- B. Ensure compliance with the [*Bloodborne Pathogens Standard - 29 CFR 1910.1030*](#).

III. AUTHORITY FOR PLAN

Guidelines and procedures found in this plan follow those regulations as outlined by:

- A. Occupational Safety and Health Administration (OSHA) *Bloodborne Pathogens Standard* 29 CFR 1910.1030
- B. Occupational Safety and Health Administration (OSHA) *Bloodborne Pathogens Standard* 29 CFR 1910.1030 [January 2001 amendment](#) to comply with the *Needlestick Safety and Prevention Act*
- C. The Centers for Disease Control and Prevention (CDC)

IV. ROLES AND RESPONSIBILITIES

The following roles and responsibilities for implementation of the *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious* will be updated as needed to reflect any change(s) in the assignment of these responsibilities.

- A. Deans, Directors, and Department Heads
 1. Have overall responsibility for their entire organization regarding implementation of and compliance with the *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious*.
 2. Work with principal investigators, supervisors, and staff to develop and administer any additional policies and procedures needed to support the implementation of this plan.
 3. Revise and update procedures for all areas of responsibility at least annually.
 4. Identify job classifications in which all employees have a potential for occupational exposure to bloodborne pathogens and other potentially infectious

materials.

5. Identify job classifications in which some employees may have a potential for occupational exposure to bloodborne pathogens and other potentially infectious materials. Identify the tasks and procedures or groups of closely related tasks and procedures in which potential occupational exposure occurs.
6. Ensure that a program is in place to:
 - a. Provide annual training on bloodborne pathogens and other infectious materials.
 - b. Maintain training records.
 - c. Report sharps injuries.
 - d. Offer hepatitis B vaccination/declination forms.
 - e. Ensure that covered employees comply with requirements outlined in this plan for training, safe practices, injury reporting, and follow-up.

B. Principal Investigators

1. Ensure compliance with the University of Minnesota *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials* within their research area.
2. Identify personnel with potential for occupational exposure to bloodborne pathogens and other potentially infectious materials.
3. Work with lab supervisor(s) and employees to develop and administer any additional policies and procedures needed to support the effective implementation of this plan.
4. Develop, and at least annually revise and update standard operating procedures (SOPs) for all areas of responsibility. Work with lab supervisor(s) and employees to develop standard operating procedures that reflect:
 - a. The biosafety level approved by the [Institutional Biosafety Committee \(IBC\)](#).
 - b. Appropriate biosafety level practices outlined in CDC-NIH's [Biosafety in Microbiological and Biomedical Laboratories](#).
 - c. [NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules \(NIH Guidelines\)](#).

5. All researchers using university facilities, including non-university staff researchers, are required to obtain prior approval from the Institutional Biosafety Committee (IBC) for work involving:

- a. Recombinant DNA or synthetic nucleic acid molecules
- b. Artificial gene transfers
- c. Infectious agents
- d. Biologically derived toxins
- e. Pre-made engineered organisms/cells/agents

C. Work unit supervisors (in lab/research settings, this would be the principal investigator if there is no other lab supervisor)

1. Ensure compliance with the University of Minnesota *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials* in their work areas by working directly with the employees to promote and ensure that proper exposure control procedures are followed.
2. Inform all employees of potential hazards in the workplace.
3. Investigate and report exposure incidents and take the necessary action to prevent similar incidents from occurring.
4. Provide lab-specific safety training at time of initial work assignment and annually thereafter. Training content shall comply with the *Bloodborne Pathogens Standard* 29 CFR 1910.1030 (g) (2) (vii).
5. Regularly review the availability of products engineered to reduce sharps exposure in order to determine if there is an acceptable replacement for use in lab procedures.

D. Employees

1. Responsible for day-to-day compliance with the *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials* as part of their work procedures.
2. All workers having potential exposure to bloodborne and other potentially infectious materials are required to:
 - a. Understand potential exposure from work tasks and route of exposure.

- b. Conduct all tasks in accordance with established rules and SOPs.
 - c. Successfully complete all required bloodborne pathogens training within ten working days of initial assignment and annually thereafter if work with bloodborne pathogen(s) and/or human materials.
 - d. Practice good personal hygiene habits.
- E. The University Health and Safety - Biosafety and Occupational Health Department (BOHD):
- 1. Update the *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials* at least annually.
 - 2. Conduct periodic inspections of all work areas where the program applies including Biosafety Level 1 to Level 3 (BSL 1-3) research labs in order to ensure that engineering controls are in place and that safety procedures are being followed.
 - 3. Develop suitable education/training programs and materials.
 - 4. Provide in-person and web-based training (see Section XIII).
 - 5. Maintain web-based biosafety web content and a list of biosafety references.
 - 6. Maintain a sharps injury log (BOHD does this).
 - 7. Conduct annual reviews of the program in compliance with Section XIV.
- F. Institutional Biosafety Committee (IBC)
- 1. Reviews all recombinant DNA or synthetic nucleic acid molecules, artificial gene transfer, infectious agents, pre-made engineered organisms/cells/agents and biologically derived toxin protocols for:
 - a. Appropriate biosafety level
 - b. Exposure control methods
 - c. Waste disposal and spill clean-up methods
 - d. Expertise of laboratory personnel

V. ACCESSIBILITY

A copy of this *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials* is accessible to all employees on the [Biosafety and Occupational Health Department \(BOHD\) website](#).

Employees, their health care providers, and other concerned parties may also access the OSHA Bloodborne Pathogen Standard [here](#).

VI. DEFINITIONS

As defined in [29 CFR 1910.1030](#)

- A. **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 virus (HCV), and human immunodeficiency virus (HIV).
- B. **Blood** means human blood, human blood components, and products made from human blood.
- C. **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.
- D. **Other Potentially Infectious Materials (OPIMs) 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, body fluids that are visibly contaminated with blood, and all body fluids 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).
 3. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; blood, organs, or other tissues from experimental animals infected with HIV or HB.
- E. **Parenteral** means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.
- F. **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.

VII. EXPOSURE DETERMINATION

Directors, department heads, work unit supervisors and principal investigators identify those employees and job classifications that have occupational exposure to human blood, other potentially infectious materials, or other pathogens, as defined in Section VI above. For each new work assignment, the principal investigator or work unit supervisor will make an individual employee exposure determination. Exposure determination must be made without regard to the use of personal protective clothing and equipment.

Two examples of job classification lists are included in Appendix A. Separate lists must be made for job classifications in which all employees in those classifications have occupational exposure and job classifications in which some of the employees may have occupational exposure. For employees falling under the second list, specific tasks and procedures for each classification must be included.

VIII. METHODS OF COMPLIANCE

The following five methods of compliance will be implemented:

A. Universal Precautions

1. Principal investigators and supervisors are responsible for overseeing the Universal Precaution Program in their work area
2. All human blood and OPIMs, and other pathogens covered by this program, must be treated as if they are infectious to humans

B. Engineering Controls and Other Safety Equipment

1. **Engineering Controls** means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices such as sharps with engineered injury protections, and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace. Engineering Controls:
 - a. Shall be examined and maintained or replaced on a regular schedule to

ensure their effectiveness.

- b. Are used whenever possible to eliminate or minimize employee exposure to bloodborne and other pathogens.
 - c. Are reviewed annually for the availability of safer medical devices; the review is documented, and input is provided by non-administrative staff.
2. Containers for contaminated sharps have the following characteristics:
 - a. Puncture-resistant
 - b. Color-coded or labeled with a biohazard warning label
 - c. Leak-proof on the sides and bottom
 - d. Closable
 3. Hand washing sink and eyewash facilities are readily accessible.
 4. The following additional containment equipment is used as needed for specific procedures:
 - a. Biological safety cabinets
 - b. Centrifuge secondary containment
 - c. Other ventilated enclosures, as needed

C. Work Practice Controls

It is the responsibility of work unit supervisors, in conjunction with directors, department heads, and principal investigators, to oversee the implementation of work practice controls.

1. Washing procedures include:
 - a. Wash hands immediately, or as soon as feasible, after removal of gloves or other personal protective equipment.
 - b. Wash hands and any other potentially exposed skin, with soap and water immediately, or as soon as feasible, following contact with blood or other potentially infectious materials.
 - c. Flush mucous membranes with water immediately, or as soon as feasible, following contact with blood or any other potentially infectious materials.
 - d. When it is not feasible to provide a sink, such as for field work, OSHA has stated “If there has been no occupational exposure to blood or other potentially infectious materials, antiseptic hand cleansers may be used as an

appropriate hand washing practice.” If antiseptic hand cleansers are used, hands shall be washed with soap and running water as soon as feasible.

2. Sharps procedures:
 - a. Contaminated needles and other contaminated sharps are not bent, recapped or removed unless it can be demonstrated that there is no feasible alternative. Necessary recapping is done through mechanical means or with a one-handed technique as demonstrated on the [BOHD website](#).
 - b. Contaminated reusable sharps are placed in appropriate containers immediately, or as soon as possible after use.
 - c. During use, containers must be easily accessible and kept upright.
 - d. Containers must be replaced when $\frac{3}{4}$ full and closed prior to removal
 - e. A sharps injury log must be maintained. The log must protect the confidentiality of the injured employee and include:
 - The type and brand of device involved in the incident.
 - The department or work area where the exposure incident occurred.
 - An explanation of how the incident occurred.
3. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses is prohibited in work areas where there is potential for exposure to bloodborne pathogens. Food and drink is not kept in refrigerators, freezers, on countertops or in other storage areas where blood or other potentially infectious materials are present.
4. Mouth pipetting and suctioning of blood or other potentially infectious materials is prohibited.
5. All procedures involving blood or other potentially infectious materials are performed in such a manner as to minimize splashing, spraying, spattering, or other actions generating droplets.
6. Blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, or transport.
7. The above containers are appropriately labeled and closed for handling and storing

specimens of blood or other potentially infectious materials. If outside contamination of a primary specimen container occurs, that container is placed within a second leak-proof container appropriately labeled for handling and storage. If the specimen can puncture the primary container, the secondary container must also be puncture-resistant.

8. Transport of biological material within the University will be in primary and secondary containers. Containers must be:
 - Leak-proof and closable.
 - Labeled with appropriate biohazard label.
 - Puncture-resistant, when necessary.
 - Place sufficient absorbent materials (diapers, absorbent towels, pads) around the primary containers to contain all liquid if a breakage occurs.
9. Shipping of blood or other potentially infectious materials outside the University requires special training every two years. Please contact UHS for training information (uhs@umn.edu or 612-626-6002).
10. Equipment which becomes contaminated will be decontaminated prior to servicing or shipping. If decontamination is not feasible, an appropriate biohazard warning label will be attached to identify the type of contamination and the contaminated areas. Before equipment is handled, serviced, or shipped, contamination information will be conveyed to all affected employees, the intended equipment receiver, and any equipment service representative. Equipment that is slated for disposal or recycling must be appropriately labeled with a form available through Waste Recovery Services.

D. Personal Protective Equipment

1. The lab manager or work unit supervisor is responsible for ensuring that appropriate protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided. Personal protective equipment is provided at no cost to employees. This equipment may include, but is not limited to:

- a. Gloves of latex or nitrile
 - b. Disposable gowns and lab coats
 - c. Face shields/masks
 - d. Safety glasses/goggles
 - e. Mouthpieces/resuscitation bags/pocket masks or other ventilation devices
 - f. Hoods and shoe covers
2. Employees are trained regarding the use of the appropriate personal protective equipment for the tasks/procedures they perform. If necessary, additional training is provided when an employee takes a new position or is assigned new tasks/procedures. To determine whether additional training is needed, the employee's previous job classification and functions are compared to his/her new job classification or functions. Any needed training is provided by his/her department and/or supervisor.
 3. To ensure that personal protective equipment is not contaminated and is in good condition to protect employees from potential exposure, the following practices are utilized:
 - a. All personal protective equipment is inspected periodically and repaired or replaced as needed to maintain effectiveness.
 - b. Reusable personal protective equipment is cleaned, laundered and decontaminated as needed.
 - c. Each department is responsible for providing lab coats and a lab coat laundering service.
 - d. Single-use personal protective equipment (or equipment that cannot be decontaminated) is disposed of as outlined in the University's [*Biohazardous and Pathological Waste Management Plan*](#).
 4. To ensure that personal protective equipment is used as effectively as possible, employees will adhere to the following practices:
 - a. Any garments penetrated by blood or other infectious materials will be removed immediately, or as soon as feasible.
 - b. All personal protective equipment will be removed prior to leaving the

work area. It shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

- c. Gloves will be worn:
- Whenever employees anticipate hand contact with potentially infectious materials.
 - When performing vascular access procedures.
 - When handling or touching potentially contaminated items or surfaces.
- d. Disposable gloves are replaced as soon as practical after contamination or if torn, punctured, or otherwise lose their ability to function as an "exposure barrier." Disposable (single use) gloves are not washed or decontaminated for re-use.
- e. Utility gloves may be decontaminated for reuse unless they are cracked, peeling, torn, or exhibit other signs of deterioration, at which time they are disposed of.
- f. N95 respirators or equivalent, in combination with eye protection such as goggles or glasses with solid side shields, or chin-length face shields, are used whenever splashes, sprays, or droplet generation of infectious material can be reasonably anticipated.
- g. Protective clothing is worn whenever potential exposure to the body is anticipated. Type and characteristics of protective clothing will depend on the task and the degree of exposure that is anticipated.
- h. Surgical caps/hoods and/or shoe covers/boots are used in any instances where "gross contamination" is anticipated.
- i. While carrying out tasks or procedure in which direct or incidental hand contact with potentially infectious materials is likely.

E. Housekeeping and Waste Disposal

Departments and lab staff, with the assistance of custodial services or other assigned employees as needed, will ensure that the worksite is maintained in a clean and sanitary condition.

1. All equipment and surfaces are cleaned and decontaminated immediately, or as soon as possible, after spills or other contact with blood or other potentially infectious materials.
2. All work surfaces that may have been contaminated are decontaminated at the completion of procedures and at the end of each work shift if surfaces may have become contaminated since the last cleaning.
3. Equipment protective coverings are removed and replaced as soon as possible after spills or other contact with blood or other potentially infectious materials and after the work shift if the covering may have become contaminated.
4. All containers for reuse are inspected, cleaned, and decontaminated as soon as possible if visibly contaminated.
5. Potentially contaminated broken glassware is picked up using mechanical means (such as a dustpan and brush) and disposed of in proper sharps containers.
6. All infectious waste, including regulated waste (see Section VI Definitions), is disposed of according to the University's *Biohazardous and Pathological Waste Management Plan*, which is in compliance with the *Bloodborne Pathogens Standard* 29 CFR 1910.1030 (d)(4)(iii)(B).

IX. HIV AND HBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES

- A. There are no HIV or HBV production facilities at the University.
- B. The following procedure requirements are in addition to the other requirements of the *Bloodborne Pathogens Standard* and apply to research laboratories engaged in culture, production, concentration, experimentation, and manipulation of HIV and HBV. They do not apply to clinical or diagnostic laboratories solely engaged in the analysis of blood, tissues, or organs:
 1. Assigned laboratory space and work practices for HIV and HBV research must be approved by the Institutional Biosafety Committee (IBC).
 2. All waste will be decontaminated by autoclaving for one hour or placed in a red bag for disposal by a licensed contractor.

3. Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak-proof, labeled, or color-coded container that is closed before being removed from the work area.
4. Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.
5. Access to work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.
6. A biohazard sign will be posted on all access doors.
7. All work shall be conducted in biological safety cabinets or other appropriate containment devices. No work shall be conducted on the open bench. Biological Safety Cabinets will be certified when installed, when moved, and at least annually.
8. Appropriate protective clothing shall be worn, removed before leaving the work area, and decontaminated before laundering.
9. Vacuum lines will be protected with liquid disinfectant traps and HEPA filters.
10. Use of needles and syringes will be limited to situations where there is no feasible alternative. Only needle-locking syringes or syringe-needle units where needle is integral to syringe shall be used.
11. All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
12. A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.
13. All activities that pose a threat of exposure to droplets, splashes, spills, or aerosols shall use appropriate combinations of biological safety cabinets, personal

protective equipment, and secondary containment such as centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals.

- C. The following facility requirements must be met for HIV and HBV labs.
 - 1. Each laboratory must contain a facility for hand washing and an eye wash which is readily available within the work area.
 - 2. An autoclave shall be available for decontaminating regulated waste.
- D. For training requirements see Section XIII, Training and Record Keeping.

X. HEPATITIS B VACCINATION

Hepatitis B vaccination is offered after initial Bloodborne Pathogen Training and within 10 days of work assignment to all employees who have occupational exposure to bloodborne pathogens unless the employee has previously received the complete hepatitis B series, antibody testing has revealed that the employee is immune, the vaccine is contraindicated for medical reasons, or the employee declines the vaccination.

The vaccination consists of a series of three inoculations over a six-month period and is provided at no cost to the employee. HealthPartners Occupational and Environmental Medicine (HPOEM) will provide vaccination at no cost to the employee after a departmental EFS number is presented to BOHD at uohs@umn.edu. Visit the [BOHD](#) website for appointment information and clinic locations. If the employee declines the vaccine, a Declination Form (Appendix B) must be signed and kept in the employee's file. There is also an opportunity to decline the vaccine as part of the University's online Bloodborne Pathogen Training. If the employee declines to be vaccinated, they may accept vaccination at a later date.

Information regarding the vaccination program, including safety and effectiveness, is part of [Bloodborne Pathogen Training](#).

XI. FIRST AID, INCIDENT REPORTING, AND POST-EXPOSURE EVALUATION

- A. Administer First Aid. Encourage needle sticks and cuts to bleed; gently wash with soap and water for 15 minutes; flush splashes to the nose, mouth, or skin, with water; and flush eyes at the nearest eyewash station with clean water for 15 minutes. Seek medical attention immediately.
- B. Incidents are reported to the worker's supervisor as soon as possible and a First Report of Injury must be submitted, either [online](#) (preferred), or print a fillable pdf form. If the exposure has occurred during work on an IBC protocol, an [Incident Report Form](#) must be filled out and submitted to the IBC office within 24

hours.

- C. Following a report of an exposure incident, the employee is provided confidential medical treatment, evaluation, and follow-up under the supervision of a licensed physician or other licensed health care professional. Tests are conducted by an accredited laboratory at no charge to the employee. Emergency care is provided by [HealthPartners Occupational and Environmental Medicine](#), during regular business hours, and [M Health Emergency Services](#), after hours. Post-exposure evaluation and follow-up to bloodborne pathogen exposure must include:
1. Documentation of the routes(s) of exposure and the circumstances under which the exposure incident occurred.
 2. Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.
 3. The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the University shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.
 4. If the source individual is already known to be infected with HBV or HIV, testing need not be repeated.
 5. Results of source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
 6. If the employee agrees to blood collection and testing following an exposure incident, it will be done as soon as possible after consent is given.
 7. If the employee consents to baseline blood collection at the time of the exposure, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

8. An exposed employee will be offered:
 - a. Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service
 - b. Counseling
 - c. Evaluation of subsequent reported illnesses
- D. The employee's supervisor will investigate the circumstances surrounding the incident to determine what action (training, change in work practice, engineering controls, etc.) must be taken in order to prevent similar incidents in the future.
- E. The University's occupational health provider is responsible for maintaining employee medical records according to OSHA regulations. All medical records are confidential; information will not be disclosed without the employee's written consent. Medical records, with regards to an occupational exposure, will be maintained for at least the duration of employment plus 30 years.

Record-keeping and/or reporting for occupational bloodborne pathogen exposures will be in compliance with OSHA *Bloodborne Pathogens Standard* 29 CFR 1910.1030(d) (2)(i) and as directed by BOHD as follows:

1. BOHD will receive a bloodborne pathogen post-exposure evaluation report and a work ability report for each injured University community member.
2. HealthPartners Occupational and Environmental Medicine (HPOEM) will work with the Office of Risk Management & Insurance as needed regarding missing or incomplete information about Workers Compensation claims.
3. Test results are documented in the HPOEM electronic medical record.
4. Affected persons can be asked and should complete any post exposure patient questionnaires or other appropriate forms as determined by HPOEM and BOHD.
5. HPOEM will work with University staff to assist them in the maintenance of other records on an as-needed basis.

XII. LABELS AND SIGNS FOR HAZARD COMMUNICATION

Biohazard warning labels and signs are used to communicate hazards to employees. Labels and signs display the biohazard symbol and are colored fluorescent orange or orange-red.

A. Labels are affixed to:

1. Biohazard waste containers, sharps disposal containers, laundry bags
2. Other containers used to store, transport, or ship blood and other potentially infectious materials
3. Refrigerators/freezers containing blood or other potentially infectious materials
4. Contaminated equipment with indication of which portion of equipment is contaminated

B. Biohazard signs are posted at entrances to all biological research laboratories including HIV and HBV. The sign must indicate whether any special requirements are needed for entry and the name and phone number(s) of the lab director or other responsible person.

XIII. TRAINING AND RECORDKEEPING

It is the responsibility of individual departments to identify employees who need training and ensure that training is completed. Bloodborne Pathogens Training is required annually for all employees that are at risk for exposure to bloodborne pathogens (See Appendix A).

Covered employees must take Bloodborne Pathogens Training at the time of initial assignment and at least annually thereafter. All new employees, as well as employees changing jobs or job functions, will be given additional job-specific training prior to beginning new work assignments. Training material will include but not be limited to:

1. An accessible copy of the *Bloodborne Pathogens Standard*
2. The epidemiology and symptoms of bloodborne and other diseases
3. The modes of transmission of bloodborne and other pathogens
4. The University's *Exposure Control Plan for Bloodborne Pathogens and Other Potentially Infectious Materials*
5. Appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials

6. A review of the use and limitations of methods that will prevent or reduce exposure, including:
 - a. Engineering controls
 - b. Work practice controls
 - c. Personal protective equipment
 7. Selection and use of personal protective equipment including:
 - a. Types available and location
 - b. Proper use
 - c. Removal and handling
 - d. Decontamination and disposal
 8. An explanation of biohazard labels, signs and "color-coded" containers
 9. Information on the hepatitis B vaccine, including:
 - a. Efficacy and safety
 - b. Method of administration
 - c. Benefits of vaccination
 - d. No cost to the employee
 10. Post exposure evaluation procedures as outlined in Section XI above.
- B. In addition to the training outline above, employees in HBV and HIV research labs must:
1. Demonstrate proficiency in standard microbiological techniques and techniques specific to the job tasks.
 2. Have prior experience handling human pathogens or tissue cultures or be provided with a training program beginning with non-infectious agents and progressing as proficiency is developed.

C. Training Methods

The following types of training, *by themselves*, do not constitute training, and do not comply with this program or the regulation:

1. Giving an employee a data sheet, package insert, reference manual or any other printed material to read.
2. Watching video or computer-delivered presentations, especially when the material in the video is not specific to the operation and hazards at hand.

3. Any type of training which does not include an opportunity for employees to ask questions to ensure they understand the information presented to them. Audiovisuals, interactive videos, printed materials, etc., may be used as a component of the Bloodborne Pathogens Training program if they are supplemented by specific information related to the employee's job duties and related exposures, and if employees are permitted to ask questions and have them answered.

D. Training Records

Researchers are required to take the online Bloodborne Pathogens training.

Training records are automatically saved in the University's Data Warehouse.

XIV. ANNUAL REVIEW OF THE POLICY

An annual review of the policy shall be conducted by University Health and Safety - Biosafety and Occupational Health Department to ensure that the current written program is up to date.

Appendix A

EXPOSURE DETERMINATION BY JOB CLASSIFICATION

All of the following job classifications require employees to perform procedures or occupation- related tasks that involve exposure, or the potential for exposure to blood or other potentially infectious material. These classifications may also include tasks that involve the potential for spills or splashes of blood or other potentially infectious material.

EXAMPLES OF JOB CLASSIFICATIONS IN WHICH ALL EMPLOYEES HAVE OCCUPATIONAL EXPOSURE

- Anatomical Preparation Technician
- Anesthesiologist
- Assistant Athletic Equipment Manager
- Assistant IM Director
- Athletic Equipment Manager
- Chemical and Biosafety Officer
- Clinic Aide
- Clinical Laboratory Staff
- Clinical Nurse
- Cytogenetic Laboratory Director
- Cytogenetic Laboratory Manager
- Cytogenetic Laboratory Technician I
- Cytogenetic Laboratory Technician II
- Dental Hygienist
- Physicist
- Hospital Nurse
- Immunization Clinic Coordinator
- Industrial Hygienist
- Laundry Worker I
- Laundry Worker II
- Licensed Practical Nurse
- Maxillofacial Surgeon Nurse
- Nurse CLN I
- Nurse CLN II
- Nurse CLN Manager
- Nurse Practitioner

- OB\GYN Surgeon
- Occupation Health Physician
- Optometrist
- Orthopedic Surgeon
- Physician
- Physician Assistant
- Public Safety Personnel
- Radiation Safety Officer
- Resident/Instructor Safety Technician
- Staff Athletic Trainer
- Staff Dentist
- Staff Physician
- Health Student
- Athletic Aid
- Athletic Trainer
- Surgeon, M.D.
- Surgical Resident, M.D.
- Urological Surgeon

EXAMPLES OF JOB CLASSIFICATIONS IN WHICH SOME OF THE EMPLOYEES MAY HAVE OCCUPATIONAL EXPOSURE

Job Classification

- Accounting Clerk
- Associate Intramural Director
- Assistant Professor
- Associate Professor
- Assistant Scientist
- Athletic Staff Trainer
- Athletic Student Trainer
- Community Health Association
- Custodian/employees assigned to custodial work
- Electron Microscopist I
- Graduate Assistant Health Care Aide
- Health Care Assistant
- Histological Tech
- Junior Scientist Laboratory Attendant I
- Laboratory Supervisor
- Laboratory Tech

- Maintenance Worker
- Pipefitter/Plumber
- Research Assistant
- Research Associate
- Research Fellow Scientist
- Senior Scientist

Task

- Handle shipping/receiving of human samples
- First aid
- Handles human blood and tissue
- First aid and treatment of athletic injuries
- Draws blood
- Cleans and disinfects work areas where hazards might exist
- Process human tissue
- Handles blood and tissue samples
- Handles blood samples
- Patient contact, draw blood, housekeeping
- Process human blood and tissue
- Handles human blood and vascular access
- Maintains item that may be contaminated
- Deals with contaminated lines

APPENDIX B

HEPATITIS B VACCINE DECLINATION

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 the 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 the hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Print Name: _____

Signature: _____

Date: _____