

Name:		
Bloodborne Pathogen Exposure Control Plan		
Date Created: June 2008	Date Revised: June 2017	Reviewed By: Karen Barnack

Introduction

Portland State University (PSU) has made a commitment to the prevention of incidents or accidents that can result in employee injury or illness. This exposure control plan is an element of our safety and health program and complies with Oregon OSHA’s Bloodborne Pathogens Standard, 1910.1030. Environmental Health and Safety (EHS) has the authority and responsibility to ensure that all elements of the exposure control plan are in place. Employees can read the exposure control plan on EHS’s website (<http://www.pdx.edu/environmental-health-safety/bloodborne-pathogens>).

Note: The PSU Center for Student Health and Counseling (SHAC) maintains their own Bloodborne Pathogen Exposure Control Plans for both Health Services and Dental Services.

Purpose

The purpose of this exposure control plan is to eliminate or minimize employee occupational exposure to blood or other potentially infectious materials (OPIM), identify employees occupationally exposed to blood or OPIM in the performance of their regular job duties, provide information and training to employees exposed to blood and OPIM, and comply with Oregon OSHA’s Bloodborne Pathogens Standard, 1910.1030, which requires:

- An exposure determination
- Procedures for evaluating the circumstances surrounding an exposure incident
- A schedule and method of implementing the provisions of the standard.
- An annotated copy of the standard

Exposure determination

Employees subject to the Oregon OSHA bloodborne pathogens standard are those who are reasonably expected to have skin, eye, mucous membrane, or parenteral contact with blood and/or any body fluids that are contaminated with blood during the performance of their assigned job duties. Although Good Samaritan acts are not covered under the bloodborne pathogens standard, it is our policy to provide evaluation and treatment of employees who sustain exposure to blood or OPIM while assisting an injured employee.

Table 1 lists job classifications and associated tasks identifying employees at risk of exposure to blood or other potentially infectious materials (OPIM). Exposure determinations are made without regard to use of personal protective equipment.

Table 1: Employees at risk	
<i>Job classification</i>	<i>Task or procedure</i>
Environmental Health & Safety Staff	Biohazard waste handling.
Landscape Staff	Pick up needles. Clean-up bodily fluids, fecal matter and abandoned property potentially contaminated with bodily fluids.
Parking and Transportation Maintenance Staff	
Plumbers	Potential exposure to blood or bodily fluids while working on plumbing.
Campus Public Safety Officers (assigned to provide first-aid assistance as part of their job duties)	(Currently being updated) Cleanse and bandage cuts, burns, and other open wounds. Emergency treatment of traumatic wounds. Cardiopulmonary resuscitation. Cleanup spilled blood or OPIM. Decontamination of work surfaces and reusable equipment.
University Place Housekeeping Staff	Handling laundry potentially contaminated with bodily fluids. Potential exposure to discarded needles.
Laboratory Personnel	(Currently being updated)
Athletics Trainers	(Currently being updated)
Athletics Laundry Room Staff	(Currently being updated)
Clinic Staff (SHAC, Center for Student Health and Counseling - Health Services and Dental Services)	Both departments maintain their own BBP exposure control plan.

Compliance Methods

Universal precautions

Universal precautions is an approach to infection control in which all human blood and other potentially infectious materials (OPIM) are handled as if they were known to be infectious for bloodborne pathogens. Consider difficult- or impossible-to-identify body fluids as potentially infectious.

Engineering and work practice controls

Use the following controls to eliminate or minimize occupational exposure.

Sharp containers

Place contaminated needles, blood-contaminated test tubes, and other sharp objects in a sharps container. Replace containers routinely and do not allow overfilling. Place reusable sharps in metal trays for decontamination. When moving containers of contaminated sharps from the area of use, close containers to prevent spillage or protrusion of contents.

Safe medical devices

Purchase and use safe medical devices whenever possible. Evaluate devices annually to determine appropriateness of the device and to investigate new and safer options.

Work practices

Clean up blood spills or body fluids as soon as possible. Use disposable absorptive materials, such as paper towels or gauze pads, to soak up the fluids. Clean the area with chemical germicides or a 1:10 solution of liquid bleach. Place absorptive towels, pads, and other material used to mop up spills in plastic bags or designated, labeled containers and treat as biohazardous waste.

Employees must wash their hands upon removal of gloves and other protective gear. In an emergency, if soap and water are not immediately available, use disposable antiseptic towelettes or germicidal gels to clean hands after removing gloves. Employees must wash their hands with soap and water as soon as possible.

Employees may not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses where occupational exposure can occur. Do not store food or beverages in refrigerators and freezers and other sites used to store blood or other biohazardous material. Place biohazard labels on refrigerators or freezers used to store biohazardous material.

Personal protective equipment (PPE)

PPE is provided at no cost to employees. Employees receive training in its use, maintenance, and disposal annually.

Facilities Stores, located in the basement of USB, is the storage area for bloodborne pathogens PPE and clean-up materials. Supplies include: disposable gloves; puncture resistant gloves; face shields; impervious disposable coveralls and booties; antiseptic towelettes; rubber gloves; and bleach.

PPE use and disposal

- Employees engaging in activities that may involve direct contact with blood, OPIM, contaminated objects, mucous membranes, or open wounds must wear disposable gloves made of vinyl, nitrile, or latex. Replace gloves if torn, punctured, or contaminated.
- Use reusable rubber gloves or disposable gloves to clean up spill areas. Disinfect reusable gloves with diluted liquid bleach (1:10 dilution) or germicides after use. Inspect and replace reusable gloves if punctured, cracked, peeling, torn, or deteriorated.
- Wear face shields or goggles with disposable surgical masks whenever splashes, spray, or spatters of blood droplets or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated.
- Use laboratory coats or scrubs to prevent contamination of employee street clothing. Wear impermeable disposable coveralls and booties whenever contamination of skin not protected by gloves or face shields is anticipated, such as a traumatic injury with significant blood loss.
- Use resuscitation devices, which minimize contact with mucous membranes, to perform cardiopulmonary resuscitation.
- Remove used personal protective equipment at the exposure location or as soon as feasible to avoid contamination of other work areas. Place in a biohazard container or in a plastic bag with a biohazard label. PPE must not be taken from the work site. Refer to *Appendix A* for more information on biohazard waste disposal procedures.

Housekeeping/Clean up

- Employees who have received bloodborne pathogens training and who have been included under the exposure control plan can clean up small spills, work surfaces such as bench tops and blood processing areas, and small areas potentially contaminated with bodily fluids.
- Consult with EHS for any biohazard housekeeping and cleanup that involves more than a small, contained, low-hazard situation. Contact EHS any time you or your staff are unsure or uncomfortable if a situation is safe for you to address. EHS will consult and advise as to how to manage in house or if an abatement contractor is warranted.
- Clean and decontaminate all equipment and working surfaces after completion of procedures in which blood or body fluids contaminated with blood are handled, and immediately, or as soon as feasible, when surfaces are overtly contaminated with blood, and at the end of the work shift if the surface may have been contaminated since the last cleaning. Inspect all biohazardous waste receptacles and decontaminate weekly or immediately upon visible contamination.
- Clean and decontaminate all equipment used to pick up needles, bodily fluids, fecal matter, or abandoned property potentially contaminated with bodily fluids.
- Use chemical germicides or solutions of 5.25 percent sodium hypochlorite (liquid bleach) diluted 1:10 with water for cleaning. Chemical germicides approved for use as hospital disinfectants and effective against HIV can also be used.
- Broken glassware or glass items must not be picked up directly with the hands. Use a mechanical means, such as a brush and dust pan, tongs, or forceps. Handle as a biohazardous waste. Decontaminate equipment used to pick up glassware with a 1:10 bleach solution or an approved germicide.

Contaminated laundry

Use disposable gloves to handle non-disposable linen, such as laboratory coats or scrubs, or any other clothing visibly contaminated with blood. Minimize the time spent handling laundry. Bag laundry as close as possible to the location where it was used. Place laundry in a bag that prevents soak-through and/or leakage of fluids to the exterior; place a biohazard label on the bag.

Biohazard (regulated) waste

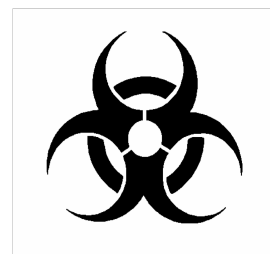
EHS will pick up biohazard waste for disposal. Place biohazard waste in containers that are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded, and closed prior to removal to prevent spillage or protrusion of contents during handling.

Contact EHS for large red biohazard plastic bags and sharps containers.

Refer to *Appendix A, Biohazard Waste Disposal Procedures* for more information.

Labels and signs

Affix biohazard warning labels to laundry bags, containers of biohazard waste, refrigerator units and containers used to store, transport, or ship blood or OPIM. Red biohazard bags or containers can be used instead of labels.



Hepatitis B vaccine

The hepatitis B vaccine shall be offered, **at no cost**, to employees that have been determined to have occupational exposure, within 10 working days of their initial assignment. The hepatitis B vaccine is given in a series of three shots. After an initial dose, the second shot follows one month later. The final shot is given six months after the first.

Previously vaccinated employees must provide a vaccination record to EHS that includes the vaccination dates. Employees who are unsure if they have previously received the vaccination can receive an antibody screen (titer blood test) that checks whether or not they have immunity.

All employees who have been determined to have occupational exposure must complete and submit to EHS the *Hepatitis B Vaccine Acceptance or Declination Form (Appendix B)*.

Employees, who accept to receive the vaccine, are responsible for scheduling the vaccine series and/or the antibody screen with the Kaiser Permanente Occupational Health Service Center within 10 days of training. Appointment scheduling, appointment time, and travel time should be conducted on work time.

Employees must sign a declination statement:

- If they have potential exposure to bloodborne pathogens, but decline to take the vaccination,
- If their vaccination record is not available and revaccination is declined,
- If they will be obtaining an antibody screen,
- If they start the vaccination series, but decline to finish, or
- If for medical reasons, the employee cannot be vaccinated.

Employees who initially decline can still receive the vaccination should they decide at a later date to accept.

Employees who begin the vaccination series and terminate employment before the series is complete, can receive the remaining vaccine at no cost to the employee.

Exposure incident and post-exposure evaluation and follow-up

An exposure incident to bloodborne pathogens is defined as an eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results during the performance of an employee's job duties. It is also Portland State University's policy to include Good Samaritan acts performed by an employee at the work site.

- Whenever an exposure occurs, wash the contaminated skin immediately with soap and water. Immediately flush contaminated eyes or mucous membranes with copious amounts of water.
- Exposed employees should obtain a medical evaluation as soon as possible after the exposure incident in order that post-exposure prophylaxis, if recommended, can be initiated promptly.
- Employees may receive medical treatment from the health care provider of their choice. Kaiser Permanente is one choice for receiving a medical evaluation and post-exposure follow-up after an exposure incident.
- Employees must notify their supervisor, and supervisors must notify Human Resources as soon as possible, after first providing appropriate medical care and assistance to the employee.

- The medical evaluation is to include the route(s) of exposure and the exposure incident circumstances; identification and documentation of the source individual, where feasible; exposed employee blood collection and testing of blood for HBV and HIV serological status; post-exposure prophylaxis, where indicated; counseling; and evaluation of reported illnesses. Source test results and identity will be disclosed to the exposed employee according to applicable laws and regulations concerning disclosure and confidentiality.

Information provided to the health care professional

Human Resources, Environmental Health and Safety, and the employee's supervisor will coordinate to ensure that the health care professional who evaluates the employee after an exposure incident receives the following information:

- A description of the employee's duties as they relate to the exposure incident
- Documentation of the route(s) and circumstances of the exposure
- The results of the source individual's blood testing, if available
- All medical records relevant to the appropriate treatment of the employee, including vaccination status

Health care professional's written opinion

Human Resources and Environmental Health and Safety will coordinate to provide the employee with a copy of the health care professional's written opinion within 15 days after completion of the evaluation.

Limit the health care professional's written opinion(s) for the hepatitis B vaccination to whether the vaccination is indicated and whether the employee has received the vaccination.

Limit the health care professional's written opinion for the post-exposure evaluation to the following information:

- Whether the employee was informed of the evaluation results
- Whether the employee was told about any medical conditions resulting from exposure to blood or OPIM that may require further evaluation or treatment.

Training

All employees who may have occupational exposure to bloodborne pathogens shall receive training on the epidemiology, symptoms, and mode of transmission of bloodborne pathogen diseases. In addition, the training program will include the following topics:

- An explanation of activities and tasks that may involve exposure to blood and OPIM.
- How appropriate engineering controls, work practices, and personal protective equipment (PPE) will prevent or reduce exposure.
- The basis for the selection of PPE; the types, use, location, removal, handling, decontamination, and disposal procedures.
- Hepatitis B vaccine information to include that the vaccine is provided at no cost, the benefits of being vaccinated and the methods of administration.
- Employer responsibilities for post-exposure evaluation and medical follow-up; how and who to contact should an exposure incident occur.
- An explanation of signs, hazards, and labels.
- How to review or obtain a copy of the exposure control plan and the standard.
- Site specific information and an opportunity for employees to ask questions about any aspect of the training.

Supervisors are responsible for ensuring that employees receive bloodborne pathogens training prior to their initial assignment to tasks in which occupational exposure to bloodborne pathogens may occur and whenever an employee's job duties change and they may be exposed to bloodborne pathogens.

Environmental Health and Safety provides training to new employees and every 12 months, or sooner when there are new tasks or changes to the existing procedures/tasks.

Recordkeeping

Training records are maintained by PSU's EHS department, kept for 3 years and include:

- o The date(s)
- o Content of the training program,
- o Name and qualifications of the trainer(s)
- o Names and job titles of the attendees

Hepatitis B vaccination records are maintained by PSU's EHS department and are kept for the duration of employment plus 30 years.

Medical records are maintained by Human Resources for employees with occupational exposure to bloodborne pathogens and are kept for the duration of employment plus 30 years, in accordance with Oregon OSHA's *Access to Employee Exposure and Medical Records* standard, 1910.1020. Medical records are confidential, and employees must sign a written consent of disclosure. Medical records include:

- o Employee name
- o Social Security Number
- o Hepatitis B vaccination status, including dates given
- o Any medical records relative to the employee's ability to receive the vaccination

Exposure Incident Records are maintained by Human Resources, as noted above under medical records, and include:

- o The results of any examination, medical testing, and follow-up procedures.
- o A copy of the treating physician's written opinion to the employer.
- o A copy of all information provided by the employer to the health care professional regarding the exposure incident.

OSHA 300 log and sharps injury log are maintained by Human Resources for 5 years. Any needle stick, mucous membrane, or skin contact with blood or body fluids contaminated with blood or OPIM requiring medical treatment (e.g., gamma globulin, hepatitis B immune globulin, hepatitis B vaccine, etc...) must be recorded in the OSHA 300 log. In addition, contaminated sharps injuries, including needle sticks must be recorded on the sharps injury log.

Plan Evaluation and Review

Review the exposure control plan and update at least annually and whenever necessary to reflect new or modified tasks and procedures that affect occupational exposure. EHS is responsible for the annual review. Sign and date this exposure plan when the review has taken place.

Signature: _____ Date: _____

Additional Information

Contact EHS for consultation through the campus Work Order system (5-2FIX) or call (503)725-3738. EHS is the Program Administrator for the Bloodborne Pathogen Exposure Control Plan.

ASSOCIATED DOCUMENTS AND FORMS:

Appendix A – Biohazard Waste Disposal Procedures

Appendix B – Hepatitis B Vaccine Acceptance or Declination Form

Appendix C – Definitions

APPENDIX A

BIOHAZARD (REGULATED) WASTE DISPOSAL PROCEDURES

INTRODUCTION

The Portland State University Biohazard Waste Management Plan has been prepared in accordance with EPA, OR-OSHA and State of Oregon Regulations. At PSU, all biohazard waste is transported off site in 28 gallon drum containers for incineration.

This information is intended to clarify segregation, packing and pickup of wastes, both biohazard and uncontaminated.

DEFINING BIOHAZARD REGULATED WASTE

Biohazard waste typically includes waste containing pathogens with sufficient virulence and quantity so that exposure to the waste by a susceptible host could result in an infectious disease. PSU includes all sharps from medical areas, patient care, research, and other waste types described below.

BIOHAZARD WASTE TYPES

1. Cultures, stocks of infectious agents and associated biological materials including but not limited to:
 - Specimens from medical, pathology and research laboratories;
 - Disposable culture/agar plates;
 - Devices used to transfer, inoculate, and mix cultures;
 - Wastes from the production of biological materials; and
 - Discarded live and attenuated vaccines.
2. Human blood, blood products, and body fluids.
3. All sharps (contaminated and uncontaminated) such as:
 - Needles and syringes;
 - Scalpels, razors, microtome blades;
 - Pasteur pipettes;
 - Slides and cover plates; and
 - Broken glass.
4. Animal carcasses, body parts and bedding from animals exposed to pathogens in research.
5. Other laboratory wastes including but not limited to:
 - Specimen containers;
 - Disposable pipettes;
 - All cell culture materials;
 - All microorganisms constructed using rDNA.
 - Pipette tips; and
 - Solidified blood and body fluids.
6. Personal protective equipment, to include disposable gloves, lab coats, scrubs, coveralls, masks and aprons.
7. All wastes that have been steam sterilized.
8. Abandoned property (bedding and clothing) potentially contaminated with human blood or other bodily fluids.

HANDLING BIOHAZARD WASTE

Waste must be segregated at the point of origin by the generator. Culture plates and vials containing pathogenic organisms must be autoclaved prior to disposal, using autoclavable bags (orange or red). Place in a redbag-lined biohazard container after autoclaving. *Do not use the biohazard box's red liner for autoclaving.*

Waste must be placed either directly into the redbag-lined Rubbermaid transport containers, *or* a redbag-lined white biohazard box.

- **All sharps** must be placed in a red sharps container.
- **Animal carcasses, body parts and bedding** from animals exposed to pathogens should be disposed of in accordance with established procedures. Call 5-3738 for more information.
- **Human blood, blood products and body fluids**
 - Greater than 500 ml must be **solidified** with a product such as Isolyzer and placed in a biohazard box (white with a red plastic liner).
 - **Amounts less than 500 ml can be disinfected with a bleach solution (1:10 final dilution) and sewered.**
- **All other laboratory waste**, such as disposable petri dishes, specimens, cell culture materials, pipette tips, solidified blood and body fluids, autoclaved culture plates, vials, etc. Place in either the redbag-lined biohazard containers or directly into the redbag-lined Rubbermaid containers that are used to transport biohazard waste for incineration.
- **Personal protective equipment**, to include disposable gloves, lab coats, scrubs, coveralls, masks and aprons. Place in either the redbag-lined biohazard containers, red biohazard bags, or directly into the redbag-lined Rubbermaid containers that are used to transport biohazard waste for incineration.
- **Abandoned property (bedding and clothing) potentially contaminated with human blood or bodily fluids** should be placed directly into red biohazard bags, then placed in the Stericycle bins located in the PS1 garage or the landscape yard.

UNCONTAMINATED WASTE

- **Uncontaminated sharps** must also be placed in a red sharps container.
- **Plastic bottles and jars**, e.g. media, bleach, or ETOH bottles - place in *regular trash* containers.
- **Glass bottles or jars - empty, rinsed and unbroken** - place in a **sturdy** cardboard box. If one is not available, place in a biohazard box.
- **Broken laboratory glass** - place in sharps containers.

PREPARING FOR PICKUP

Properly packaged, labeled waste will be picked up by EHS per schedule or as needed through the Work Order system under "Hazardous Chem/Bio Waste Pickup".

1. **Secure sharps container closure with tape. Secure biohazard box liner, then close and seal the box.**
2. Label with the room number and building.
3. **Place in designated area for pickup.**
4. Custodial staff will place biohazard boxes and sharps containers into transport containers. If transport containers are filled directly, they will replace the ones they remove. Check with custodial staff for pickup information.

ORDERING BIOHAZARD WASTE CONTAINERS AND BAGS

Use the Facilities & Property Management Work Order System to request pick up of full and replacement of sharps/biohazard containers or to have additional units added to an area. Also use the work order system to request large red biohazard plastic bags.

**APPENDIX B
Portland State University**

**HEPATITIS B VACCINE ACCEPTANCE OR DECLINATION FORM
Revised 6/2017**

Acceptance Statement

I, the undersigned, acknowledge that my employer, Portland State University, has offered the hepatitis B virus (HBV) vaccine to me at no cost. I have been informed of the biological hazards that exist in my workplace, and I understand the risks of exposure to blood or other potentially infectious materials involved with my job. **I wish to receive the hepatitis B virus vaccine.**

Employee's name (print)

Employee's signature

Employee number

Department

Date

If you accept to receive the hepatitis B vaccine, you must receive the first in the series from the Kaiser Permanente Occupational Health Service Center within 10 days of signing this form.

If employee has received the hepatitis B vaccination series previously, please provide EHS with the vaccination record that includes the vaccination dates, and check here _____

If employee has received the hepatitis B antibody screen (titer test) or intends to receive the test, please provide EHS with the record showing that the employee is immune, and check here _____

Employee must sign a declination statement if either record is not available and revaccination is declined.

Declination Statement

I, the undersigned, 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. However, I decline hepatitis B 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 vaccine series at no charge to me.

All of my questions regarding the risk of acquiring hepatitis B virus, and the hepatitis B virus vaccination process, have been answered to my satisfaction.

Employee's name (print)

Employee's signature

Employee number

Department

Date

APPENDIX C

DEFINITIONS

Bloodborne pathogens--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) and human immunodeficiency virus (HIV).

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

Contaminated Laundry- laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps--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.

Decontamination--the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a 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.

Occupational Exposure--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.

Other Potentially Infectious Materials (OPIM)--(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, and any body fluid that is 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); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.

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

Regulated Waste--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.

Source Individual--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.