



## A. Introduction

Because laboratories and classrooms working directly with blood or other potentially infectious materials have different bloodborne pathogen exposure concerns than the general university, the following Laboratory Exposure Control Plan (LECP) has been developed as an addition to the general Eastern Exposure Control Plan (ECP). This plan is intended to protect employees at risk of exposure to potentially infectious materials due to their work in the laboratory or classroom. Information found in the LECP supersedes information found in the ECP where conflicting or different information exist.

## B. Definitions

**Bloodborne pathogens (BBP)** are microorganisms found in blood and other potentially infectious materials that can cause disease in humans. The three most common examples are Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV).

**At Risk Employees** are all faculty, staff, and TAs (anyone paid by Eastern) working in laboratories or classrooms that use human or non-human primate blood or other potentially infectious materials.

**Other Potentially Infectious Materials (OPIM)** are:

1. The following human body fluids:
  - Semen
  - Vaginal secretions
  - Cerebrospinal fluid (fluid surrounding the brain and spinal cord)
  - Synovial fluid (fluid surrounding bone joints)
  - Pleural fluid (fluid surrounding the lungs)
  - Pericardial fluid (fluid surrounding the heart)
  - Peritoneal fluid (fluid surrounding organs in the abdominal cavity)
  - Amniotic fluid (fluid surrounding the fetus during pregnancy)
  - Saliva in dental procedures
  - Any body fluid that is visibly contaminated with blood
  - 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, or non-human primate (living or dead).
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.
4. Any pathogenic microorganism.
5. Human cell lines, primary and established, excepting those that have been specifically characterized to be free of contamination from bloodborne pathogens.

**Occupational Exposure** is *reasonably anticipated* contact between an employee's broken skin or mucous membranes and blood or OPIM in the performance of their duties.

**BBP Exposure Incidents** are interactions between potentially infectious material and an area of an individual's body that is susceptible to infection. Parts of the body susceptible to infection include: cut or broken skin and mucous membranes (eyes, ears, nose, mouth...).



**Universal Precautions** is the practice of assuming all blood and OPIM are infected with bloodborne pathogens are taking the appropriate precautions to avoid infecting yourself when handling those materials.

## C. Responsibilities

**EH&S** is responsible for:

- Maintaining, reviewing and updating the LECP annually or whenever necessary to include new or modified tasks and procedures.
- Ensuring copies of the LECP are available and providing physical copies to employees when they are requested.
- Ensuring all medical actions are performed.
- Maintaining vaccination records and declination forms as required by WAC 296-823.
- Providing Bloodborne Pathogen Training.
- Soliciting input from employees for improvements to the LECP and BBP related protocols.

**Human Resources** is responsible for:

- Maintaining all post-exposure medical records.

**Department Chairs** are responsible for:

- Identifying all laboratories and classrooms that have occupational exposure and notifying EH&S of their identities.
- Ensuring the person or people in charge of laboratories and classrooms with occupational exposure understand their responsibilities and are following the guidelines in the LECP.

**Principle Investigators (PIs), supervisors, and instructors** are responsible for:

- Implementing the LECP in their laboratories and classrooms.
- Informing EH&S when changes in their procedures would necessitate an update to the LECP.
- Ensuring all employees attend required training.
- Ensuring appropriate personal protective equipment (PPE) and safety equipment is available for employees and that it is used when needed.
- Providing laboratory and classroom specific trainings, including use of PPE, lab/class procedures and protocols, and waste disposal.

**Employees and Students** are responsible for:

- Attending all trainings.
- Wearing PPE as required.
- Following procedures when dealing with blood and OPIM.

## D. Controlling Employee Exposure to Bloodborne Pathogens

The following steps shall be taken to reduce or eliminate employee exposure to BBP.

1. **Safer medical devices will be used whenever possible.** These will include:

- Self-sheathing needles
- Needleless systems
- Plastic capillary tubes



## 2. Sharps shall be used and disposed of in a manner that reduces the likelihood of employee injury.

No sharps will be recapped and needles shall not be bent or broken off.

All sharps will be moved directly into a sharps container after use.

- If sharps cannot be immediately placed into a sharps container, they shall be stored in a ridged, puncture-resistant container (like a large petri dish) or stuck into a thick Styrofoam board while awaiting transfer into the sharps container.

Any sharps placed into a ridged, puncture-resistant container shall be transferred to the final sharps container in a manner that does not require the employee to touch the sharps.

Sharps container shall be inspected and maintained or replaced by the PI, supervisor, or instructor, or by a designated employee of their choice.

- When full, sharps containers shall be given to John Shields, or the appropriate departmental employee, for autoclaving and disposal.

## 3. PPE shall be worn at all times while working with blood or OPIM.

PPE shall be provided to all employees at no cost and shall be available in appropriate sizes for each employee. Supervisors, instructors, or PI are responsible for determining what PPE is necessary for their procedures. At a minimum:

- Gloves shall be worn whenever there is the possibility for contact with blood or OPIM, or objects/surfaces that have had contact with blood or OPIM.
- Face and eye protection (goggles, masks, face shields...) shall be worn whenever there is the potential for blood or OPIM to splash on the face.
- Lab coats or other coverings shall be worn whenever there is the potential for blood or OPIM to splash on the body.

All PPE shall be removed if it becomes contaminated or before leaving the laboratory/classroom. In addition, gloves shall be replaced if torn, punctured, or otherwise damaged.

- Contaminated PPE shall be removed carefully, in a manner that avoids contact with the contaminated surface.
- Contaminated PPE shall be disposed of in an appropriate biohazard container following laboratory or classroom protocols.

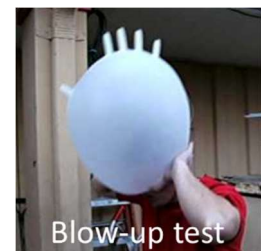
Before putting on disposable gloves, perform the blow-up test to make sure they are free of holes. Blow into the end of the glove and squeeze it closed. No air should leak out of the fingers or hand. (You don't need to inflate it much.)

Disposable gloves shall not be washed for reuse.

Hands shall be thoroughly washed after removal of PPE.

When removing gloves the outside should always be considered contaminated and the inside should be considered clean. Remove gloves carefully so that contaminated areas only touch other contaminated areas and clean areas only touch other clean areas. A demonstration video can be found here:

<https://www.youtube.com/watch?v=dyLEd9cng5U>. Contact supervisor or EH&S (x6496) if you need help with this.





**Glove Removal**



**4. Proper hygiene and housekeeping shall be used when in laboratories and classrooms working with blood or OPIM**

One of the best ways to limit infection with BBP and other diseases is frequent handwashing.

Employees shall wash their hands:

- Immediately after removing gloves or other PPE
- Upon completion of tasks involving potentially infectious materials

Pipetting or suctioning blood or OPIM by mouth is forbidden.

No eating, drinking, applying cosmetics, or handling contact lenses is allowed in work areas where there is the potential for exposure to BBP.

Food and drinks shall not be stored in areas where blood or OPIM are stored or used.

All spills shall be cleaned as soon as possible using an appropriate disinfectant, follow either your lab/class procedure or the steps below:


**Clean Up of Body Fluid Spills**

1. Block off the area around the spill. Anyone not involved in clean-up should move away.
2. Put on PPE
3. Make up a fresh 10% bleach solution (9 parts water with 1 part bleach)



4. If any solid objects (sharps or general lab objects) are present carefully remove them with tongs or a broom and dustpan.
5. Soak up the spilled material using paper towels or other absorbent materials and place towels into biohazard waste container.
6. Gently pour or drip bleach solution onto contaminated surface. The surface should be visibly wet and remain wet for the entire contact time.
7. Let the bleach solution sit for 10 minutes.
8. Soak up the bleach solution using paper towels or other absorbent materials and place these towels into the biohazard waste container.
9. Soak broom and dustpan or tongs, if used, in bleach solution for several minutes and set them aside to air dry.
10. Carefully remove PPE and place into biohazard waste container.
11. Wash hands with soap and water for at least 20 seconds.

#### 5. All containers with potentially infectious materials must be labeled with the biohazard

symbol  and/or the word “Biohazard”

Labels for containers with biohazardous waste shall include the name or initials of the person responsible for generating the waste, their phone number, and the date the waste was generated.

#### 6. Hepatitis B Vaccination are offered to all at risk employees

Hepatitis B (Hep B) is one of the most common BBP. It is one of the few BBP for which there is a vaccine. The Hep B vaccine is 95% successful when given to adults. It is a series of three shots given over a 6 month period.

The Hepatitis B vaccine is offered, at no cost, to all employees who have the potential for occupational exposure to bloodborne pathogens. The vaccination will be offered within 10 days of initial assignment to employees who are identified in Section C of this ECP. The time needed to receive the shots is considered to be time spent working and will be compensated normally.

Many employees will have had the vaccine as children. For those individuals the university offers a blood draw to determine if the vaccination was successful. If the blood draw determines that the employee is not immune to Hep B, the shots will be offered.

Employees may decline the shots by filling out the Hep B Declination Form.

Employees who initially decline the shots may elect to receive them at any time in the future, free of charge. Contact your supervisor to get the paperwork set up.

Contact EH&S for information about where to go to receive the vaccine.

## E. Employee Training

All employees who have the risk of occupational exposure to BBP are required to receive Bloodborne Pathogen Training annually. Training is provided by EH&S. Laboratory/class specific training provided by their PI, supervisors or instructors.

EH&S training will include:

- Information about bloodborne pathogens including:
  - Types of BBP
  - Symptoms of exposure



- Routes of transmission
- A copy and explanation of WAC 296-823, Occupational Exposure to Bloodborne Pathogens
- Explanation of EWU's Exposure Control Plan and information about obtaining a copy
- Tasks and activities that may involve exposure to blood or OPIM
- What constitutes an exposure incident
- The use and limitations of work practices and PPE
- Types and use of PPE
- Information about the Hepatitis B vaccine
- Actions to take and persons to contact in an emergency involving blood or OPIM
- Procedures to follow if an exposure incident occurs, including:
  - How to report the incident
  - Medical follow-up available
- Evaluation and follow-up after an exposure incident
- Signs, labels, and color coding used to identify biohazardous materials
- Question and answer session with the trainer

Training materials for EH&S Bloodborne Pathogen Training can be obtained by contacting EH&S.

Training records are maintained for each employee upon completion of training. These documents will be kept for at least three years at the EH&S office.

Training records will include the following information about the training session:

- Date
- Contents or a summary
- Name(s) and qualifications of trainer(s)
- Names and job titles of all attendees

Training records are provided to employees or their authorized representatives within 15 working days of a request. Requests for training records should be sent to EH&S.

## F. Post-Exposure Evaluation and Follow-Up

The following instructions are for EWU employees only. Potential student (not employees) exposures are covered at the end of this section.

### Exposure Incident

An exposure incident is defined as a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with human blood or OPIM. Examples of exposure incidents include needle sticks, splash/spatter to the mucous membranes of the face, and any other incident that involves contact between blood or OPIM and non-intact skin (cuts, scratches, chapped skin...). **Contact between blood or OPIM and unbroken skin is NOT an exposure incident.**

### Immediate Response

Following an exposure incident, the following steps must be completed.

**In the event of a life threatening emergency, call 911, otherwise:**

1. Provide first aid immediately
  - a. For injury or exposure through a wound, rash, or other compromised skin:
    - i. Scrub exposed area gently but thoroughly for 15 minutes using warm water and soap.



- ii. A safety shower may be used if the affected area is not able to be washed in a sink. Stay under the shower for 15 minutes.
  - b. For mucous membrane exposure flush the affected area with fresh water for 15 minutes. If exposure is in the eye, make sure to hold eyes open in the eyewash.
2. Contact your supervisor or EH&S
3. Make sure the area is secure and no one else will be affected.
4. Go to the Cheney Rockwood clinic and tell them you had a work related bloodborne pathogen exposure
  - a. If away from the Cheney campus go to the nearest health care center or emergency room.

**Supervisors: If your employee has a potential BBP exposure event you or your designate must submit an Incident Report to EH&S within 24 hours.**

### Evaluation Post-Exposure

The employee who had a potential BBP exposure will receive a copy of WAC 296-823 describing their rights and a post-exposure medical evaluation and follow-up as described in this section.

Employees are not required to have a post-exposure medical evaluation. However, if you decide not to have a medical evaluation you must fill out an **Informed Refusal For Medical Evaluation** form and submit it to EH&S along with your incident report.

1. A medical evaluation will be performed immediately after exposure and will be:
  - a. Confidential
  - b. At no cost to the employee
  - c. At a reasonable time and place
  - d. Administered by a licensed physician or health care professional
2. The examination will include at least:
  - a. Documentation of the routes of exposure and the circumstances under which the exposure happened
  - b. Identification and documentation of the source (individual or materials) if possible.
  - c. Serial collection and testing of blood to detect the presence of HIV, HBV and/or HCV
    - i. In the event that the employee does not permit serologic testing, a baseline blood sample will be held for at least 90 days. During this time the employee can change their mind and testing will be run on the blood sample as soon as possible.
  - d. Post-exposure treatment when medically indicated and as recommended by the physician
  - e. Counseling about the results of testing and information regarding state laws concerning disclosure of information.
  - f. Evaluation of reported illnesses subsequent to the exposure.

The health care provider is to provide the employer and employee with a copy of the written opinion on the post-exposure evaluation within 15 days of the incident. This written opinion includes whether Hepatitis B vaccination is indicated for the employee and if the employee has received such vaccination. It documents that a medical evaluation took place following the exposure incident, that the employee has been counseled about potential medical conditions resulting from exposure to blood or OPIM that may need further evaluation or treatment. All other findings are to remain confidential.

Supervisors should assist the employee in obtaining a copy of the report if it has not already been provided to the employee. The employee should tell their supervisor if a copy of the report has not been received within 15 days.



## Student Exposure to BBP

Students are not covered by the universities insurance. If you are aware of a student who has been exposed to potentially infectious materials, you should:

1. Have them follow the initial first aid step above, either washing or rinsing the affected area for 15 minutes.
2. Advise them to go to their doctor.
  - a. If they have student medical insurance they should go to the Cheney Rockwood Clinic.
3. Let them know that they should inform their doctor that they have had exposure to blood or OPIM.

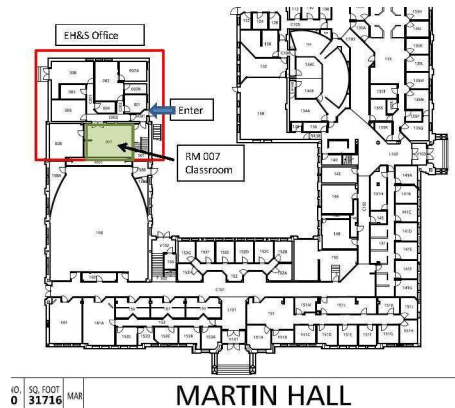
## G. Medical Records: WAC 298-832-170

Employee health files are maintained by EH&S. It is imperative that all medical documentation pertaining to an employee's occupational exposure to bloodborne pathogens are sent to EH&S for inclusion in the employee's files.

Medical information is not to be kept by departments.

Employee medical records shall be kept confidential and will not be disclosed without employee's consent unless required by law.

## H. EH&S Contact Information



### **Environmental Health & Safety**

002 Martin Hall  
Cheney WA 99004

Phone: 509-359-6496

Fax: 509-359-4690