



Exposure Control Plan (ECP)

OSHA 29 CFR 1910.1030

Bloodborne Pathogens or Other Potentially
Infected Materials (OPIM)



Baylor University
Exposure Control Plan / Bloodborne Pathogens
OSHA 29 CFR 1910.1030

Purpose

Baylor University is committed to providing a safe and healthy work environment for all its faculty, staff, and students. The Exposure Control Plan (ECP) is provided to eliminate and/or minimize occupational exposure to bloodborne pathogens or other potentially infectious materials in accordance with the Occupational Safety and Health (OSHA) standard(s).

Scope

The ECP is a key document to assist the university in implementing and ensuring compliance with the standard, thereby protecting our employees and students. This ECP includes:

- Definition of bloodborne pathogen exposure and other potentially infectious materials;
- Implementation of various methods of exposure control, including;
 1. Universal precautions
 2. Engineering and work practice controls
 3. Personal protective equipment
 4. Housekeeping
 5. Hepatitis B vaccination
- Post-exposure evaluation and follow-up;
- Communication of hazards to employees and training;
- Recordkeeping; and
- Procedures for evaluating circumstances surrounding an exposure incident.

The methods of implementation pertaining to these elements of the standard are discussed in the subsequent pages of this ECP.

Responsibility

Administrative Duties

The Environmental Health and Safety Department (EHS) is responsible for the oversight of the ECP. The Baylor Campus Safety Manager will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.

Contact: Campus Safety Manager at 254-710-2492.

Departments with employees who have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this plan. These identified and affected departments with possible employee occupational exposure will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red biohazard trash bags as required by the standard. These

identified departments will ensure that an adequate supply of the equipment is available in the appropriate sizes.

Contact: Department Chair, Department Safety Officer, or EHS Campus Safety Manager.

Each affected department will be responsible for ensuring that all medical actions required are performed and that appropriate OSHA records are maintained. The Campus Safety Manager will be responsible for making sure that the training, documentation of training, revisions to the plan, and making the written ECP available to employees is fully carried out.

Definitions

Blood means human blood, human blood components, and products made from human blood. 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) and human immunodeficiency virus (HIV).

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

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

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

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.

Decontamination means 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.

Engineering Controls means controls (e.g., sharps disposal containers, self-sheathing needles, safe medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials.

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

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by the parameters within paragraph (f) of the BBP 1910.1030 standard pertaining to the Hepatitis B Vaccination and the Post-Exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral (taken into the body in a manner other than through the digestive canal; designating a drug to be injected) contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials means:

1. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid (secreted by certain membranes, as those of the joints), pleural fluid (thin transparent serous (of a watery nature) membrane enveloping the lungs and lining the walls of the thoracic cavity.), pericardial fluid (membrane enclosing the heart.), peritoneal fluid (serous membrane lining the abdominal cavity), amniotic fluid, saliva in dental procedures, any bodily 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
4. Blood, organs, or other tissues from experimental animals infected with HIV or HBV.

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

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 or blouses) not intended to function as protection against a hazard is not considered to be personal protective equipment.

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

Research Laboratory means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps - engineered sharps injury protections mean 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 reduces the risk of an exposure incident.

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:

1. Hospital and clinic patients;
2. Clients in institutions for the developmentally disabled;
3. Trauma victims;
4. Clients of drug and alcohol treatment facilities;
5. Residents of hospices and nursing homes;
6. Human remains; and
7. Individuals who donate or sell blood or blood components.

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

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, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the way a task is performed (e.g., recapping needles is prohibited).

EXPOSURE CONTROL PLAN

Employer Responsibilities

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be covered in their annual refresher training. All employees have an opportunity to review this plan online at the Environmental Health and Safety website.

The Environmental Health and Safety Department (EHS) with input from other affected departments is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

The review and update of such plans must also:

- Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
- Consider the implementation of appropriate commercially available and effectively safer medical devices designed to eliminate or minimize occupational exposure.

EHS solicits input in the identification, evaluation, and selection of effective engineering and work practice controls from any employee responsible for the direct care of any individual who may have potentially been infected. Only those employees responsible for the direct care of any individual who may have potentially been infected from contaminated sharps need be contacted.

Universal Precautions

All Baylor employees affected by this plan will utilize universal precautions. All blood or Other Potentially Infectious Material (OPIM) will be considered infectious regardless of the perceived status of the source.

Engineering and Work Practice Controls

Engineering and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific work practice controls used are listed below:

- Hand washing facilities are readily available to all employees who incur exposure to blood or OPIM;
- Employees will wash their hands immediately after removal of potentially contaminated gloves or PPE;
- Employees will wash their hands and any other exposed skin with soap and water, as well as flush all exposed mucus membranes with water immediately following any contact of body areas with blood or any OPIM;

- Food, drink, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in any areas where there is possible exposure to bloodborne pathogens;
- Do not store food, drink or any other ingested items where blood or other potentially infectious materials are stored; and
- Refrigerators should be labeled as to the appropriate use according to the following:
 - ✓ “No Food is Allowed in This Refrigerator”
 - ✓ “Food is Allowed in This Refrigerator”

Engineering Controls are also required if the potential for exposure to bloodborne pathogens or OPIM exists. These Engineering Controls include but are not limited to the following:

- Sharps disposal containers will be inspected and maintained or replaced by each respective department whenever necessary to prevent overfilling;
- Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in the paragraph below. Shearing or breaking of contaminated needles is prohibited;
- Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed unless the department can demonstrate that no alternative is feasible or that such action is required by a specific procedure. Such bending, recapping, or needle removal must be accomplished using a mechanical device;
- Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:
 - ✓ Puncture resistant;
 - ✓ Labeled or color-coded in accordance with this standard;
 - ✓ Leak proof on the sides and bottom; and
 - ✓ All procedures involving blood or OPIM shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

Personal Protective Equipment (PPE)

PPE is provided to all Baylor employees at no cost to the employee. Initial training is provided through the EHS computer-based training protocol, followed by hands-on training provided by trained personnel in the use of the appropriate PPE.

The types of PPE available will be chosen based on the anticipated exposure to blood or OPIM. The PPE will be considered appropriate only if it does not permit blood or OPIM to pass through or reach the employee’s clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used. This equipment includes, but is not limited to:

- Gloves;
- Safety Glasses;
- Face Shields; and

- Aprons or similar protective garments.

Departments will ensure that all PPE is appropriate and that all needed sizes are available.

To ensure that all PPE is not contaminated and is in appropriate condition to protect employees from potential exposure the following procedures will be implemented:

- Single-use PPE (or equipment that cannot be decontaminated) is disposed of properly;
- Reusable PPE is cleaned and decontaminated as needed; and
- All PPE is inspected regularly and repaired or replaced as needed to maintain its integrity and effectiveness.

Gloves – should always be worn when it can be reasonably anticipated that the employee may have any contact with blood or OPIM. Disposable/Utility glove protocol:

- Disposable (single use) non-latex nitrile gloves shall be replaced immediately when contaminated, torn, and punctured or any other time their ability to function as a barrier is compromised; and
- Disposable gloves (nitrile) shall not be washed or decontaminated for re-use.

Safety Glasses and Face Shields – shall be worn when splashes, spray, spatter, or droplets of blood or OPIM may be generated.

Protective Clothing – Protective clothing, such as aprons or similar outer garments, will be worn whenever the potential of exposure to the body from splashes, spray, spatter, or droplets of blood or OPIM is present. If a garment is penetrated by blood or OPIM, the garment should be removed as soon as possible.

All possibly contaminated PPE shall be disposed of before exiting controlled, designated areas.



Housekeeping

To ensure the health and safety of all employees and students, potentially contaminated sharps will be placed in containers that are closable, constructed to contain all contents and prevent leakage or puncture, appropriately labeled or color-coded (see Labels section), and closed prior to removal to prevent spillage or protrusion of contents during handling. These containers should be replaced routinely and may not be overfilled. They should also be in an easily accessible location, close to the point of use, or where sharps might be found. Broken glassware that may be

contaminated are to be picked up using mechanical means, such as a brush and dust pan, and discarded in accordance with the specifications in this section. Sharps disposal containers are available from the EHS department.

Sharps receptacles containing needles should be sealed and labeled with the appropriate location where it came from identifier (example: lab number and contact name). Contact the EHS Hazardous Material Manager to arrange pick-up at (254) 710-7629.

Other regulatory waste, such as gloves, gowns, laboratory disposable items, etc., contaminated with BBP or OPIM, shall be disposed in properly labeled or color-coded containers. These may be disposed of in the same manner as sharps disposal containers (see paragraph above) or by first autoclaving the biohazard waste and then discarding in the regular trash. Prior to discarding disinfected materials in the regular trash, the following steps must be taken:

- Put the autoclaved trash in a second bag that is not a biohazard bag (either a black, clear, or white trash bag);
- Add a label to the bag that specifies the material contained in this bag meets the definition of “Treated Biomedical Waste” and has undergone steam sterilization or chemical disinfection, effectively rendering any waste harmless and biologically inert; and
- Dispose of in regular trash or in designated autoclaved trash container. Some locations may require the use of a specific autoclaved trash container as specified by the facility

All work surfaces, materials, floors, equipment, and any other area which may have been contaminated with BBP or OPIM are to be cleaned and decontaminated immediately after exposure. This will be conducted by lab personnel if it is a small spill in a laboratory setting. If outside a lab setting, this will be accomplished by Baylor Housekeeping (254-710-3960).

When moving containers of contaminated sharps from the area of use, the containers shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. If leakage is possible, then the container should be placed in a second container that meets the same requirements.

Containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of injury.



Labels

Warning labels or tags used to identify the presence of a biological hazard shall contain the biological hazard symbol (below) and/or the word “biohazard” and then state the hazardous condition.



Required warning labels shall be fluorescent orange, red, or orange-red with lettering or symbols in a contrasting color such as black. They shall be placed on or as close to the container as feasible, attached by wire or adhesive to prevent their unintentional removal.

Warning labels shall be placed on all containers of regulated waste, refrigerators or freezers containing blood or OPIM, and containers used to store, transport, or ship blood or OPIM. Hazard labels should be removed or covered up on biohazard material that has been decontaminated through steam sterilization. A second label should be affixed as described above. Labels required for contaminated equipment shall state which portions of the equipment remain contaminated. All personnel obtaining any such equipment will ensure warning labels are affixed

as required if regulated waste or contaminated equipment is brought into the facility. Door labels are also required for labs or rooms in which biohazard materials are present or in use. Employees or students are to notify their supervisor or EHS immediately if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

Hepatitis B Vaccination

Each affected Department's designated employee will provide or arrange for training to employees who have occupational risk of exposure to BBP on hepatitis B vaccinations, addressing the safety, benefits, effectiveness and methods of administration and availability.

The hepatitis B vaccination series is available at no cost from the university's medical provider, after training and within ten working days of assignment to exposure potential tasks. After the first immunization, a second immunization is administered after 30 days. Then a third immunization is administered after five months.

The vaccine is also available to the employee at a reasonable time after an exposure incident. Baylor University shall also make available post-exposure evaluation and follow-up to all employees who have an exposure incident. Participation in a prescreening program shall not be a prerequisite for receiving the vaccination series. Vaccination is encouraged unless:

- Documentation exists that the employee has previously received the series;
- Antibody testing reveals that the employee is immune; or
- Medical evaluation shows that vaccination is contraindicated.

If an employee chooses to decline vaccination, the employee must sign a declination form which uses the wording in Appendix A of OSHA Standard 1910.1030. Employees who decline may request and obtain the vaccination later at no cost. Documentation of refusal of the vaccination is kept by the EHS Department.

Post-exposure Evaluation and Follow-Up

Should an exposure incident occur, contact the Baylor Police at 254-710-2222 and the Campus Safety Manager at 254-710-4292.

Following the initial first aid (clean the wound, flush eyes or other mucous membranes, apply bandage and pressure if needed, etc.), a medical evaluation and follow-up will be conducted by the university's designated medical provider. The following activities will be performed during this evaluation:

- Documentation of the route of exposure, and the circumstances under which the exposure incident occurred;
- Identification and documentation of the source individual, unless identification is infeasible or prohibited by state or local law;

- If possible, the source individual’s blood shall be tested as soon as feasible and consent is obtained to determine HCV, HBV and HIV infectivity. If consent cannot be obtained, this fact must be documented. When the source individual’s blood is available, it shall be tested, and the results documented;
- Results of the source individual’s testing as well as interpretations of such tests 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;
- Post exposure counseling concerning infection status will be provided to the exposed employee, including results and interpretation of all tests; and
- The university Employee Incident Report will be filled out by the affected employee or supervisor and generated into the system for review and follow-up.

Administration of Post-Exposure Evaluation and Follow-up

Baylor University will ensure that the health care professional(s) responsible for employee’s hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of:

- A description of the exposed employee’s duties as they relate to the exposure incident;
- The exposed employee’s relevant medical records; and
- Documentation of the route of exposure and circumstances under which exposure occurred.

The health care professional shall provide the employee with a copy of the evaluating health care professional’s written opinion within 15 days after completion of the evaluation. This written opinion will include at a minimum:

- If the Hepatitis B Vaccination was indicated and/or given;
- If the employee was informed of the results of his evaluation;
- If the employee was informed about any medical conditions resulting from the exposure that may require further evaluation or treatment;
- All other findings shall remain confidential and shall not be included in the written report; and
- If the employee refuses evaluation and/or treatment, documentation of the refusal will be made, and the employee shall sign a “Do Not Consent” form. EHS and the appropriate Department will maintain all records.

Procedures for Evaluating the Circumstances Surrounding an Exposure Incident

After any employee experiences an exposure incident, EHS will review the circumstances of all exposure incidents to determine if the engineering controls, work practice controls, PPE and clothing, or other policy and control failures occurred. The goal of this evaluation is to identify and correct problems to prevent recurrences.

Employee Training

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. Training shall take place upon the employee's initial assignment to tasks where occupational exposure may occur, and then annually thereafter. Training shall also be conducted when a modification of an employee's exposure potential occurs or in the case of an addition of new tasks presenting exposure risk.

All BBP training conducted at Baylor University will include at least the following topics:

- An explanation of the BBP regulation text (29 CFR 1910.1030) and where employees can obtain a copy;
- General discussion on bloodborne diseases and their transmission;
- Review of our Exposure Control Plan and where employees can obtain a copy;
- Tasks which might cause exposure to blood or OPIM;
- Review of the use and limitations of methods that will prevent or reduce exposure, including:
 1. Engineering Controls;
 2. Work Practice Controls; and
 3. Appropriate selection, use, and proper disposal of PPE.
- PPE available at our facilities and who should be contacted concerning the equipment;
- Discussion about the availability and benefits of the Hepatitis B vaccine, post-exposure evaluation and follow-up;
- Actions to take and persons to contact in an emergency involving blood or OPIM;
- The procedures to follow if an exposure incident occurs, including incident reporting;
- Information about signs/labels; and
- Opportunity for questions and answers. Contact the Baylor EHS department at 254-710-2492 for assistance.

Recordkeeping

Training Records

The EHS Campus Safety Manager will retain the training records for all computer-based Exposure Control Training conducted at the university.

Training records shall be maintained for 3 years from the date on which the training occurred. Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the employee's appropriate supervisor's office.

Medical Records

Baylor University will establish and maintain an accurate record for each employee who has been involved in an exposure incident. EHS and the Department will be responsible for setting up and maintaining these records. In accordance with 29 CFR 1910.1030(h), medical records are maintained for each employee with occupational exposure. All such records will contain at least the following information:

- Name and Social Security number of the employee;
- A copy of the employee's Hepatitis B Vaccination status, including:
 - ✓ Dates of any vaccinations;
 - ✓ Medical records relative to the employee's ability to receive vaccinations; and
 - ✓ Copies of the results of the examinations, medical testing and follow-up procedures which took place because of an employee's exposure to BBP.
- A copy of the healthcare professional's written opinion;
- A copy of the information provided to the consulting healthcare professional because of any exposure to BBP; and
- Notice of confidentiality signed by the employee.

These confidential records are maintained for at least the duration of employment plus 30 years.

Employee medical records are provided within 15 working days, upon request of the employee or to anyone having written consent of the employee. Such requests should be sent to EHS or appropriate Department.

Sharps Injury Log

Baylor University will establish and maintain a Sharps Injury Log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log will be recorded and maintained to protect the confidentiality of the injured employee. The Sharps Injury Log will include at a minimum:

- Department or work area where the exposure incident occurred; and
- Explanation of the incident.

The Sharps Injury Log shall be maintained for five years following the end of the calendar year that these records cover.

EHS Campus Safety Manager will maintain the sharps log.

This list of safe working practices is by no means the limit to which one should be careful. Think safety always. If ever in doubt of something, ASK. Report any concerns to supervisor. Safety is a critical emphasis in providing a safe and productive theater environment.

Employer Exposure Determination Examples

<u>Job</u>	<u>Department</u>	<u>Task</u>
Police Officer	Public Safety	Response to calls for service
Security Officer	Public Safety	Response to calls for service
Physician	Medical Services	Patient treatment
Nurse	Medical Services	Patient treatment
Veterinarian	Science Facilities	Animal Care
Animal worker	Science Facilities	Animal Care
Clinical Associate	HHPR	Human performance testing
Microbiology Lab Coordinator	Biology	Research
Research Assistant	Biology	Research
Athletic Trainer	Athletics Sports Medicine	Athletic patient treatment
Athletic Equipment Manager	Athletics	Equipment care and supply





If you have a Declination Statement on file, please do not submit another one.

Declination Statement:

I understand that due to my possible 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 me; however, I decline 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 hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature (Print & Sign):

Date: _____

Department: _____

BU ID#: _____

Please return a copy of this completed document to the Environmental Health & Safety department attention Campus Safety Manager.

Brent_A_Jones@baylor.edu or ext. 710-2492



Sharps Injury Log

Year: _____

1904.8(a)

Basic requirement. You must record all work-related needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by 29 CFR 1910.1030). You must enter the case on the OSHA 300 Log as an injury.

1)

Date:

Incident Report #:

Type of Device:

Department:

Description of Incident:

2)

Date:

Incident Report #:

Type of Device:

Department:

Description of Incident

Signature of Campus Safety Manager: _____