

Hamilton College Occupational Health and Safety Procedures

HAMILTON COLLEGE EXPOSURE CONTROL PLAN

1. Introduction

Purpose

Acquired Immunodeficiency Syndrome (AIDS) and Hepatitis B warrant serious concerns for workers occupationally exposed to blood and certain other body fluids that contain bloodborne pathogens. In recognition of these potential hazards, Occupational Safety and Health Administration (OSHA) enacted the Bloodborne Pathogen Standard (29 CFR 1910.1030) in 1992 to help protect workers from the transmission of bloodborne diseases within potentially exposed workplace occupations. The [OSHA standard](#) is accessible online.

Scope

Hamilton College is committed to providing a safe and healthy work environment for its employees, and for the greater college community in general. In pursuit of this endeavor, the following Exposure Control Plan (ECP) has been developed to eliminate or otherwise control occupational exposures to bloodborne pathogens. The ECP addresses the following:

- Identification of Employees at Risk
- Methods of Implementation and Control
 - A. Training and Communication of Hazards to Employees
 - B. Hepatitis B Vaccination
 - C. Recordkeeping
 - D. Universal Precautions & Housekeeping
 - E. Engineering and Work Practice Controls
 - F. Personal Protective Equipment and PPE Precautions
 - G. Labeling and Infectious Waste Disposal
- Emergency/Exposure Evaluation Procedures

Applicability and Responsibilities

The Office of Environmental Protection, Safety & Sustainability (EPSS) will maintain and update the College's written Exposure Control Plan at least annually, or as otherwise necessary so as to include new or modified tasks and procedures. EPSS will also take steps to assure compliance with the OSHA standard and this plan via tactics including training and auditing/inspection. However, it is the express responsibility of the College's divisional leaders, department heads/chairs and supervisors to assure plan compliance, including but not limited to training, vaccination and appropriate personal protective equipment use.

Special Note on Student Employees

Student employees whose jobs are expected to cause them to be exposed to blood or other potentially infectious material (such as lifeguards) are to be covered under the College's plan. All students should be aware of the dangers present from exposure to these substances, and should take all possible precautions to avoid contact with them.

Hamilton College Occupational Health and Safety Procedures

2. Identification of Employees at Risk

The College has identified and classified all workers in one of the three exposure categories listed below. This classification is based on the routine work performed by individuals and whether performing tasks that involve potential exposure to blood, body fluids or tissues is considered a condition of employment.

General Exposure Categories	
Category	Criteria
1	Employees whose routine work or defined job responsibilities include tasks that involve exposure to blood, body fluids or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with blood, body fluids, or tissues, or a potential for spills or splashes of them, are Category I tasks.
2	Employees whose normal work routine does not include tasks that regularly involve exposure to blood, body fluids, or tissues, but whose employment may require performing occasional or unplanned Category I tasks.
3	Employees whose routine work does not include tasks that involve exposure to blood, body fluids, or tissues. These individuals are not called upon as part of their employment to perform or assist in emergency medical care or first aid, or to be potentially exposed in some other way.

Job Titles Classified Under Each Exposure Category	
Category	Criteria
1	<ul style="list-style-type: none"> • Medical & 1st Aid/CPR/AED Service Providers: <ul style="list-style-type: none"> ○ Athletics Department Personnel (Trainers, Head Coaches, Assistant Coaches, Lifeguards); Student Health Center Medical Staff; Campus Safety Department • Certain Academic Teaching/Research Work: <ul style="list-style-type: none"> ○ Academic employees working with human or non-human primate cell lines, and/or waste generated by such work • Other Contact Responsibilities (including cleaning, disinfection and waste management): <ul style="list-style-type: none"> ○ Athletic Equipment Manager; Facilities Management Custodians, EPSS staff
2	<ul style="list-style-type: none"> • Other Facilities Management Personnel (Grounds Service Workers, Athletic Grounds Service Workers, Auto Mechanics and Maintenance Mechanics)
3	<ul style="list-style-type: none"> • All other Administration, Staff, Faculty, and Maintenance and Operations employees not already identified in Categories I and II.

3. Methods of Exposure Control

Training & Communication of Hazards to Employees

All employees who have (or are reasonably anticipated to have) occupational exposure to bloodborne pathogens (those in Categories 1 or 2) must be trained initially within ten (10) days of employment, and annually thereafter. Training should include a variety of tactics sufficient enough to ensure competency (such as videos, written materials and live presentations), and may be documented on Attachment 1 below. Other record-keeping strategies by outsourced training organizations are also acceptable.

Generally speaking, there are three parties who regularly perform BBP training at Hamilton, including EPSS staff, Student Health Center staff and Athletic Training Center staff. Department supervisors are primarily responsible for assuring their personnel have received such training (initially and annually), via

Hamilton College Occupational Health and Safety Procedures

these internal resources or comparable external training providers. The training provided by these individuals will cover, at a minimum, the following elements:

- An accessible copy and explanation of the applicable OSHA standard;
- Epidemiology and symptoms of bloodborne pathogens;
- Modes of transmission;
- The College's Exposure Control Plan and how to obtain a copy;
- Methods to recognize exposure tasks and other activities that may involve exposure to blood;
- Use and limitations of Engineering Controls, Work Practices, and PPE;
- PPE—types, use, location, removal, handling, decontamination and disposal;
- Hepatitis B Vaccine—offered free of charge;
- Emergency procedures—for blood and other potentially infectious materials;
- Exposure incident procedures;
- Post-exposure evaluation and follow-up;
- Signs and labels (and/or color coding);
- Question and answer session.

Additional training should be afforded to Category 1 or 2 employees based upon the nature of the work they may be expected to perform, as follows:

- Employees expected to render 1st Aid/CPR/AED services must be trained and certified to do so, and BBP protective techniques must be an essential element of such training.
- Facilities Management employees providing routine or emergency services that involve BBP risks must be trained in accordance with applicable SOP's through the appropriate shop supervisors.
- Academic faculty using human or non-human primate cell lines must train all personnel (including students) on the appropriate lab safety techniques and/or PPE strategies developed specific to hazards in use.

Hepatitis B Vaccination & Recordkeeping

Employees in Categories 1 and 2 must be offered the Hepatitis B vaccination without charge within ten (10) days of employment, reassignment or new task/hazard introduction. Employees who elect not to be vaccinated at that time must sign a declination waiver. Employees who have waived the Hepatitis B vaccination may change their minds and receive the vaccine free of charge at a later point in time. The form used to document both the vaccination and the declination is included in Attachment 2 below, with record-keeping maintained by the Human Resources department. Human Resources and Environmental Protection, Safety and Sustainability will collaborate to assure the 3-shot Hepatitis B vaccination series is administered conveniently to employees.

Training records (including the dates of training, name of person(s) conducting the training, and the names, job titles, signatures of all attendees) will be maintained by the office conducting the training if it is conducted internally. Hepatitis B vaccination records (Attachment 2, as noted above), as well as any confidential medical records for any employee exposed to BBP's and who has sought medical diagnosis and/or treatment, will be maintained by Human Resources and EPSS. All training, Hepatitis B vaccination and medical records will be maintained for at least the duration of employment, plus 30 years.

Special Hepatitis B Vaccination & Recordkeeping Considerations for Students

For non-employed students who have exposure to BBP's (like work with human cancer cell lines or non-human primate cell lines in lab settings), it is often the case that they received the Hepatitis B vaccination as a child and can verify their vaccination status through shot records maintained by the Student Health Center. However, if non-employed students are currently unvaccinated for Hepatitis B (or are unsure/do not know) and would like to receive the Hepatitis B vaccine, they may facilitate this process directly

Hamilton College Occupational Health and Safety Procedures

through the Student Health Center. The Student Health Center will schedule and administer the 3-shot series of vaccinations, and will both update and maintain each students' health records accordingly. Any costs associated with administering the Hepatitis B vaccination will be added to the student's tuition account. Students can then submit their ticket of charges to their personal health/medical insurance for reimbursement consideration.

Universal Precautions

Universal precautions is a strategy which assumes that all human blood and other potentially infectious material (OPIM) is actually or potentially contaminated with bloodborne pathogens, such as the Hepatitis B Virus (HBV) or the Human Immunodeficiency Virus (HIV). Universal precautions will be observed by all employees at all times in order to prevent contact with human blood or OPIM, regardless of the perceived status of the source individual or materials.

Other Potentially Infectious Material (OPIM)

OPIM is defined by OSHA as including the following body fluids:

- Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood, all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

Special OPIM Considerations

Certain body fluids or materials contaminated with body fluids may or may not qualify as OSHA defined OPIM. However, it is vital to recognize that whether OSHA considers these materials to be OPIM or not, various biological hazards may still exist, and employee protection may be accomplished in accordance with this ECP. Consider the following:

- Human derived feces, urine, nasal secretions, saliva/sputum, perspiration and vomitus are **NOT** generally defined as OPIM in the absence of visible signs of blood, as per the [OSHA letter of interpretation](#).
 - However, for individuals who are symptomatic with certain novel diseases (like Ebola Hemorrhagic Disease/EHD), all body fluids—including feces, urine, nasal secretions, saliva/sputum, perspiration and vomitus—**WOULD** be OSHA defined OPIM.
- Raw sewage not derived from a health care facility is also **NOT** generally defined as OPIM, as per the [OSHA letter of interpretation](#).
 - However, since Hamilton College operates health care facilities at the Johnson Center and the Athletic Training Center in the Field House, raw sewage derived from either of these locations **WOULD** be considered OSHA defined OPIM.
- Band aids and feminine napkins used for their intended purpose (absorption/control of minor bleeding or menstrual flow) are also **NOT** generally defined as OPIM, as per [OSHA at the letter of interpretation](#).
 - However, in the case of absorptive materials deployed to control large blood spills, or significantly blood-soaked bandaging, these materials **WOULD** be considered OSHA defined OPIM.
- Academic teaching/research work with human cell lines (or alternatively with non-human primate cell lines), has been [determined by OSHA to be work regulated by the BBP standard](#), and so fall under the authority and jurisdiction of this ECP.

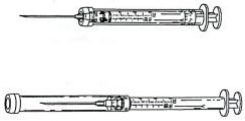
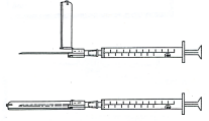


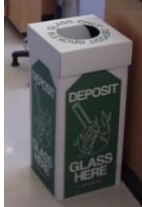
Engineering, Safe Work Practice & Housekeeping Control Measures

Control measures should be utilized and employed to eliminate or minimize employee exposures to BBP's, as follows:

Hamilton College Occupational Health and Safety Procedures

Engineering Controls:

Engineering controls incorporate “safety by design” techniques so as to engineer out BBP hazards. Examples include the following:




		<p>Retractable or fixed-cap syringes used in medical or academic laboratory settings, to minimize the risk of needle-stick injuries.</p>
		<p>Retractable scalpels used in medical or academic laboratory settings, to minimize the risk of laceration/injection injuries.</p>
		<p>Rigid containers for syringes or other contaminated sharps minimizes the risk of needle-sticks, laceration and injection injuries. The safe disposal of glassware in academic lab settings is another engineering control to minimize exposure to broken glass during solid waste handling and disposal.</p>

Safe Work Practices & Housekeeping Controls:

- Employees should always wash their hands/skin with soap and water following the conduct of job activities where body-to-body contact with persons occurs, or otherwise where contact with human blood or OPIM occurs.
- Employees should also wash their hands immediately (or as soon as feasible) after the removal of gloves or other personal protective equipment.
- It is especially important for employees to wash their hands/skin with soap and water for 15 minutes, and/or flush their eyes or other mucous membranes with water for 15 minutes, in the event of a potential exposure incident (such as a splash of blood to the eyes or an accidental needle stick). *
 - *Employees should familiarize themselves with the nearest hand washing facilities for the buildings in which they work. Because most college buildings are public access, they will have available hand washing facilities in public restrooms. (If hand washing facilities are not available, employees will be provided with either an antiseptic cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. If these alternatives are used, then the hands are to be washed with soap and water as soon as feasible.)
- Housekeeping of contaminated surfaces/equipment will typically be accomplished by utilizing a 10% (minimum) solution of chlorine bleach, or another comparable disinfectant.
- All contaminated work surfaces, tools, objects, etc. must be decontaminated immediately or as soon as feasible after any spill of blood or other potentially infectious materials. The bleach solution or disinfectant must be left in contact with contaminated work surfaces, tools, objects, or potentially infectious materials for at least 10 minutes before cleaning.
- Equipment that may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before servicing or use.
- Broken glassware should never be picked up directly with the hands. Sweep or brush material into a dustpan.
- Known or suspected contaminated sharps must be discarded immediately or as soon as feasible into rigid sharps containers that are closeable, puncture-resistant, leak-proof on the sides and bottom, and marked with an appropriate biohazard label. If a sharps container is not pre-labeled, biohazard labels are available through EHS.
- Rigid sharps containers which are reusable shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of percutaneous injury.

Hamilton College Occupational Health and Safety Procedures

- Employees who encounter improperly disposed needles shall notify Environmental Protection, Safety & Sustainability staff (or the Director of the Student Health Center) to look into and resolve the matter through the use of sharps containers.
- Needles and syringes should never be recapped, and the breaking or shearing of needles or syringes is prohibited.
 - In the event needles or syringes need to be reused, and re-capping is an essential protective requirement in the interim, follow either of the two methods below:

		Use the “scoop method” to avoid directionally placing your fingers in front of the needle/syringe.
		Use a re-capping device like the Medi-Dose to recap safely.

- Eating, drinking, smoking, applying cosmetics or lip balm, or the handling contact lenses is prohibited in work areas where there is a reasonable likelihood of occupational exposure to BBP’s.
- No food or drinks shall be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.
- Employees must perform all procedures involving blood or other potentially infectious materials in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

Personal Protective Equipment (PPE) & Barrier Control Measures

Personal Protective Equipment (PPE) and barrier control measures are the “last lines of defense” between an employee and a BBP hazard, and should be used simultaneous to other engineering, safety work practice and housekeeping control measures. Training will be provided in the use of the appropriate PPE/barrier control measures for an employee’s specific job classifications, based upon the tasks/procedures they are expected to perform. Articles of PPE and barriers include but are not limited to:

- Gloves, gowns, lab coats, filtering facepieces, eye/face protection (safety glasses with side-shields, splash-proof goggles or face shields), resuscitation bags and mouthpieces.

Eye/Face Protection		Hand/Body Protection		Respiratory Protection And Other Barrier Controls	
		 	 	 	

- As a general rule, all employees using PPE or barrier controls must observe the following precautions:
 - Wash hands immediately or as soon as feasible after removal PPE;

Hamilton College Occupational Health and Safety Procedures

- Remove protective equipment before leaving the work area and after a garment becomes contaminated;
- Place used protective equipment in appropriately designated areas or containers when being stored, washed, decontaminated or discarded;
- Wear appropriate gloves when it can be reasonably anticipated that you may have contact with blood or other potentially infectious materials and when handling or touching contaminated items or surfaces. Replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised;
- Following any contact of body areas with blood or any other infectious materials, you must wash your hands and any other exposed skin with soap and water as soon as possible. Employees must also flush exposed mucous membranes (eyes, mouth, etc.) with water;
- Utility gloves may be decontaminated for reuse if their integrity is not compromised. The decontamination procedure will consist of soaking in a chlorine solution 2%, diluted 10:1. Discard utility gloves when they show signs of cracking, peeling, tearing, puncturing or deterioration;
- Never wash or decontaminate disposable gloves for reuse or before disposal;
- Wear appropriate face and eye protection such as a mask with glasses with solid side shields or a chin-length face shield when splashes, sprays, spatters or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose or mouth.

Labeling, Collection and Handling of Regulated Medical Wastes

Regulated medical waste shall be placed in sturdy containers that are closeable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation or shipping. The waste must be labeled or color coded and closed before removal to prevent spillage or protrusion of contents during handling, storage, or transport. Biohazard bags and labels are available through Environmental Protection, Safety and Sustainability. Following departmental generation, all biohazard waste will be transported to the Taylor Science Center Biohazard Storage Room, to await shipment offsite and disposal.

In the event a bag of Regulated Medical Waste is delivered to the Taylor Science Center during hours when the stockroom is not staffed, the bag(s) should be left in the rigid container depicted to the right, with the necessary generation information completed on the provided clipboard.



4. Emergency/Exposure Evaluation Procedures

Significant Exposure Incidents

“Significant exposure incidents” as defined by this plan are different from routine injuries that may occur in the workplace in that the incident may involve no physical damage (like with a splash of blood into the eye). Criteria in both (1) and (2) must be met for the incident to be considered a significant exposure incident, which would require immediate clinical follow-up at a local hospital emergency department:

1. The body substance was:
 - Blood, semen, vaginal secretions, an internal body fluid (e.g., cerebrospinal, peritoneal, pericardial, pleural, amniotic, synovial or joint fluid), **OR**

Hamilton College Occupational Health and Safety Procedures

- Any other body fluid visibly contaminated with blood; **OR**
 - Exposure was to a body fluid during a circumstance where it was **difficult or impossible** to differentiate the fluid type involved and is therefore considered potentially hazardous;
- AND
2. The type of injury or contact provided a portal of entry:
 - Percutaneous exposure (e.g., a penetrating injury with a contaminated implement that went through the skin such as needlestick or laceration),
 - Mucous membrane contact (e.g., the body fluid splashed in the eyes or mouth),
 - Non-intact skin contact (e.g., the body fluid came in contact with open skin such as dermatitis or abrasion).
 - Note—if there has been prolonged contact with intact skin, or contact with a massive blood exposure, the exposure incident should be considered significant.

Immediate Response to an Actual or Potential Significant Exposure Incident

In the event of an actual or potential significant exposure incident, take the following actions:

- Wash blood or potentially infectious fluid from the contaminated body area(s) with soap and running water.
- Be evaluated immediately by one of the following to determine if the exposure is indeed **significant** and needs medical follow-up:
 1. The Hamilton College Emergency Medical Service/HCEMS
 - Note that HCEMS is available to all employees, students and the greater Hamilton College community when classes are in session.
 2. The Student Health Center
 - Note that the Student Health Center is open Monday through Friday 8:30 am to 4:30 pm during the academic year, and that this option is available to **students only**.
 3. The Campus Safety Department
 - Campus Safety is the primary 1st Aid/CPR/AED emergency responder during college breaks or any other time the Student Health Center and HCEMS are unavailable.
- The department or function making the “Significant Exposure Incident” Determination shall use Attachment 3 below.
- If the exposure is determined to be significant, **proceed immediately** to a local hospital emergency department for further medical evaluation. The emergency department will follow specific procedures to determine if prophylactic medication for Hepatitis B and/or HIV should be initiated.
- If the exposure is not significant, no further medical follow up is necessary. Documentation of this assessment will be kept in the exposed individual’s employee health record by either the Human Resources Office, or the Office of Student Health Services.

Documentation

The following information must be documented through the use of Attachment 3 below:

- The routes of exposure and how exposure occurred;
- The source of the body fluid, unless that identification cannot be established;
- If the exposure was significant or not;
- If the individual was referred to a local hospital emergency department for further evaluation;
- The Physician evaluating the exposed individual will provide a written opinion to the college. This opinion is limited to a statement that the employee has been informed of the results of the evaluation and told of the need, if any, for further evaluation and treatment. All other findings are confidential.

Hamilton College Occupational Health and Safety Procedures

ATTACHMENT 1 Hamilton College Exposure Control Plan & Bloodborne Pathogen (BBP) Training Certification

The following individuals attended safety training on the OSHA Bloodborne Pathogen (BBP) standard and the Hamilton College Exposure Control Plan, at the date/time/location indicated below. Training topics include bloodborne pathogens, universal precautions, workplace controls, and the Hepatitis B vaccine. By the conclusion of the training, all employees with the potential for occupational exposure were made aware of their opportunity to receive a hepatitis B vaccination, provided at no cost by Hamilton College.

Date:	Time:	Location:
Instructor Name:		Signature:
Name	Signature	Dept./Shop

Hamilton College Occupational Health and Safety Procedures

ATTACHMENT 2

OSHA Bloodborne Pathogen Hepatitis B Vaccination & Declination Form

For Completion by the Employee:	
Employee Name	
Social Security #	
Department	
Date of Hire (for new employees)	

I have participated in training provided by Hamilton College that addresses the OSHA regulations on bloodborne pathogens, universal precautions and the Hepatitis B vaccine. Further, I understand that Hamilton College will offer the Hepatitis B vaccine to me at no cost.

At this time, my decision regarding the Hepatitis B vaccination is as indicated:

Yes, I wish to receive the vaccination. I understand and commit to the full series of 3 injections.

<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> Employee Signature	<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> Date
--	--

For Completion by the Provider Administering the Hepatitis B Vaccine:	
Dept. or Provider Administering the Vaccine:	
Employee Name	
Date of 1 st Shot	
Date of 2 nd Shot	
Date of 3 rd Shot	

Hepatitis B Vaccine Declination Statement

Employee Waiver of Immunization

No, I do not need to receive the vaccination because I am presently vaccinated for the HBV. (*If known, please enter the date of your vaccination: _____*) Please sign below.

No, I do not want to receive the vaccination. I understand that I may change my mind and receive the vaccine at a later date. (*You must sign the declination statement below if you choose not to have the vaccination*) I understand that due to my occupational exposure to blood and other potentially infectious materials, I may be at risk of acquiring HBV infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine at no charge to myself. 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. I also understand that 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 that time, at no charge to me.

<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> Employee Signature	<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> Date
--	--

Hamilton College Occupational Health and Safety Procedures

ATTACHMENT 3

Hamilton College Significant Exposure Incident Report (For Bloodborne Pathogens, Sharps & Other Biohazard Incidents)

Section 1—Exposure Incident Details	
Name of Person Exposed:	
Date of Incident:	Time of Incident:
Location:	Body Part(s) Exposed:
Details of Exposure Incident (including routes of exposure, how exposure occurred, source of any fluid(s), nature of any chemical contamination, etc.):	
Name of Person Completing This Section:	

Section 2—Internal/On-Campus Medical Assessment (HCEMS, Student Health Center, Campus Safety)		
Name of Person Making Assessment:		
Date and Time of Assessment:		
Was the exposure incident determined to be significant?	<input type="checkbox"/> Yes	<input type="checkbox"/> No—1 st Aid Only
Was the exposed person referred for an external medical evaluation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, where were they seen, by who and when (complete information below)?		

Notes:

- This is a **confidential** form, and the information contained herein should only be released on a need-to-know basis.
- If the exposure was determined to be a “1st Aid Incident” only, this form should be submitted to the offices of Human Resources and Environmental Protection & Safety for recordkeeping and any necessary follow-up.
- If the exposure was determined to be “Significant”, Human Resources (and the Student Health Center in the event a student was involved) will be responsible for interacting with medical professionals and Hamilton’s insurance carrier for any necessary mitigation activities. Further, within 15 days of the medical evaluation, a written medical opinion must be provided to the injured person, in accordance with the [OSHA Bloodborne Pathogen Standard](#).