

# EXPOSURE CONTROL PLAN

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## 1 Purpose

This Exposure Control Plan was prepared with the intention of minimizing or eliminating employee exposure to bloodborne pathogens (see definitions in Section 2). This plan was developed to meet the requirements set forth by OSHA in “*Occupational Exposure to Bloodborne Pathogens; Final Rule*” contained in 29 CFR 1910.1030.

## 2 Definitions

**Blood**—human blood, human blood components, and products made from human blood.

**Bloodborne pathogens**—pathogenic microorganisms that are present in human blood and cause disease in humans. The pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

**Contaminated**—items or surfaces that have, or may have, been in contact with blood or other potentially infectious materials.

**Sharps**—any object that can penetrate the skin, such as needles, scalpels, broken glass, and broken capillary tubes.

**Decontamination**—physical or chemical means used 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**—Controls that isolate or remove bloodborne pathogens from the workplace. Examples are sharps containers and self-sheathing needles.

**OSHA**—Occupational Safety and Health Administration

**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)**—

- the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, 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,
- any unfixed tissue or organ (other than intact skin) from a human (living or dead), and

- 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.
- OPIM *does not* include urine, feces, sweat, tears, vomitus, or saliva unless visible blood is present; therefore, the Standard does not apply to these substances.

Parenteral—piercing mucous membranes or the skin barrier.

Personal Protective Equipment—specialized clothing or equipment worn by an employee for protection against a hazard (e.g. gloves, face protection, masks, gowns, etc.).

Universal Precautions—an approach to infection control in which all human blood and certain body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls—administrative rules or guidelines instituted to reduce the likelihood of occupational exposure.

### **3 Exposure Determination**

The Standard requires that we assess whether or not employees have an occupational exposure to blood or other potentially infectious materials (OPIM). Those who meet the definition will be covered under this Plan.

OSHA requires the employer to divide the exposure determinations into two groups. The first group contains the departmental job classifications in which *all* employees have a risk of occupational exposure (Table 1). The second group contains the job classifications in which *some* personnel have an occupational exposure (Table 2). The tables also indicate the job duties or tasks that pose a risk to the employee.

*Please note that students who perform tasks with exposure risk as a part of their learning experience, as opposed to paid work, are not covered under this Plan.*

**Table 1: Departments in which *all* employees in a job classification have a potential for occupational exposure to bloodborne pathogens.**

<b>Department</b>	<b>Job Classification</b>	<b>Tasks</b>
Public Safety	Lieutenant Sergeant Police Officer Lead Building and Grounds Officer Building and Grounds Officer Telecommunications Operator	Emergency response, crime scene investigation, apprehending suspects, etc.
Health Education and Disability Services	Coordinator of Learning Disabilities Educational Assistant	Provide first aid Provide accommodations for students with disabilities
Child Development Center	Teachers, full and part-time Nurse Student Assistants Educational Assistants	Provide first aid to minor scrapes and cuts. Care of young children.
Allied Health/Nursing	Full-time and part-time faculty of: Nursing Physical Therapy Radiology Respiratory Care Physical Therapy Assistant	Instruction of clinical procedures
Continuing Education	Phlebotomy coordinator Non-credit lecturer of phlebotomy Non-credit lecturer of BCLS Clinical instructors of the CNA program	Instruction of clinical procedures
Facilities	Plumber	Repair work on items that that may have been used for disposal of blood or OPIM
	Supervisors Lead Custodians Custodians	Routine cleaning of rest rooms where blood or OPIM may be encountered, and cleaning releases of blood or OPIM

**Table 2: Departments in which *some* employees have a potential for occupational exposure to bloodborne pathogens.**

<b>Department</b>	<b>Job Classification</b>	<b>Tasks</b>
Math/Science	Full and Part-time Biology Faculty* Academic Assistant Educational Assistant	Lab analysis of human blood or OPIM.

\* The Coordinator of Environmental and Occupational Health & Safety surveys the biology faculty annually to determine which members need to be covered by this Plan.

## 4 Responsibilities

The **President** has the ultimate responsibility for health and safety of all the college's employees. He supports and enforces this plan in its entirety.

**Supervisors (including Deans, Directors, etc.)** must ensure that all employees under their supervision work in a safe and healthy environment and are aware of the potential hazards of the assigned duties. They must ensure that the provisions of this plan are followed by all employees with occupational exposure, by doing the following:

- Providing a copy of this exposure control plan to employees,
- Enforcing compliance with this plan,
- Ensuring new employees receive proper training before assignment to duties with occupational exposure,
- Ensuring all employees attend an annual training session,
- Requesting a makeup session for employees who miss one of the prearranged annual training sessions provided by the Human Resources Department, and
- Performing follow-up procedures for all exposure incidents.

**Employees** must work in a safe manner to protect themselves and others around them. They must follow the specifications of this plan while performing their job duties.

**Educators** that use blood or OPIM as part of the learning experience must inform their students of the risks involved with the work, how to conduct themselves in a safe manner, and of the availability of the hepatitis B vaccine.

The **Human Resources Department** provides the OSHA-mandated bloodborne pathogen annual training to employees who are covered by this Exposure Control Plan, and notifies the Coordinator of EOHS of new employees hired into job classifications that have a potential for occupational exposure.

The **Coordinator of Environmental and Occupational Health & Safety (EOHS)** updates the exposure determinations yearly, maintains training and Hepatitis B vaccination records, and provides training to new employees hired into job classifications that have a potential for occupational exposure.

## 5 Methods of Compliance

### 5.1 Universal Precautions

Employees will use standard (universal) precautions to prevent contact with blood or OPIM. Using Universal Precautions means that all blood, or OPIM, will be considered infectious regardless of its source.

## **5.2 Engineering and Work Practice Controls**

The following engineering and work practice controls are used at NVCC to eliminate or minimize employee exposure.

- All used sharps will be discarded immediately, or as soon as feasible, in containers that are closeable, puncture resistant, leak-proof on sides and bottom, and marked with an appropriate biohazard label. Sharps containers and biohazard labels may be obtained through the Chemical Hygiene Officer.
- Needles and other sharps shall not be bent, sheared, broken, recapped, or removed, with the following exceptions:
  - Recapping done with a mechanical device, or
  - Moved by a mechanical device or tool (forceps, pliers, broom and dust pan).
- Employees must wash their hands immediately (or as soon as feasible) after removal of gloves or other personal protective equipment.\*

\* It is anticipated that most employees working in the building will have access to hand washing facilities. Those who perform work outside of the facilities, i.e., members of the Public Safety or Maintenance Departments, should be equipped with portable antiseptic for immediate use. If this alternative is used, the employee must wash their hands with soap and water as soon as feasible.

- Employees who find improperly disposed needles must immediately report it to the Public Safety Department.
- Following contact with blood or OPIM, the area of contact will be washed with soap and water. Mucous membranes are flushed with water.
- Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- Food and drink should not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops where blood or OPIM are present.
- All procedures involving blood or OPIM shall be performed in such a manner to minimize splashing, spraying, spattering, and generation of droplets of these substances.

### **5.3 Housekeeping**

Supervisors of each area where occupational exposure may occur are responsible for making sure these areas are maintained in a clean and sanitary condition. Follow these housekeeping rules to protect employees from exposure:

- Rest rooms surfaces, including sinks, toilets, personal hygiene receptacles, and floors, must be disinfected daily using an EPA registered disinfectant.
- Personal hygiene receptacles in rest rooms must be lined with a disposable bag or other suitable product.
- Work surfaces where blood or OPIM are used shall be cleaned and decontaminated at the end of the work day or lab period using the above procedures.
- Contaminated broken glassware or other sharp objects should never be picked up with hands; use tongs or other similar means instead. The object must be placed into a puncture resistant container and disposed of as medical waste.
- Protective coverings used to cover equipment and surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated, or at the end of the day if they become contaminated during the day.
- Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would injure an employee.
- Contaminated lab coats must be stored in a biohazard bag until they can be laundered. Laundering will only be done by personnel who have received bloodborne pathogen training or by a laundry service. Lab coats should not be taken home for laundering.
- Dispose of liquid waste in the sanitary sewer system. Waste materials supersaturated with blood or grossly caked with blood that could easily be released must be disposed of as infectious waste. These items must be placed in a leak-proof red bag with the biohazard label, and then stored for disposal by a medical waste handler.

#### **5.4 Response to Spills of Blood or Other Infectious Material**

- Report blood spills of *unknown origin* to the Public Safety Department (x 8112) who will contact the Building Maintenance Supervisor after their investigation. A custodian will be assigned to clean the area, using the procedures described in this section.
- Spills of known origin should be reported to the Building Maintenance Supervisor who will assign a trained custodian to clean up the spill.
- Spills occurring as a result of teaching activities involving blood or other infectious material should be cleaned up by the instructor.
- Equipment required for cleaning up blood spills include:
  - Personal protective equipment including utility gloves, nitrile gloves and eye protection
  - Plastic buckets
  - Red bags with biohazard label
  - Disinfectant
  - Mops or sponges
  - Paper towels
- Visible blood or OPIM, wherever it may be encountered (rest rooms, labs, etc.), must be cleaned up according to steps listed below, or by using a purchased blood spill clean-up kit, following the manufacturer's instructions. *Only personnel with Bloodborne Pathogen training may be involved in clean up.*
  1. Secure the area.
  2. Wear appropriate personal protective equipment depending on the extent of the spill. At a minimum, gloves **MUST** be worn.
  3. Cover spill with paper towels.
  4. Mix a **fresh** batch of approved disinfectant. This solution must be made fresh and can not be stored for more than 24 hours because it loses its disinfecting power.
  5. Allow the disinfectant solution to sit for 5-10 minutes and then wipe up the spill. The area can then be thoroughly washed with soap and water.
  6. Wash water may be disposed to the sanitary sewer.
  7. Items such as mops, sponges, etc. used in the clean up must be disinfected immediately or discarded and replaced with new items. To disinfect, place item in a bucket of disinfectant (described above) and soak for at least 10 minutes before rinsing with clean water. Items that will be discarded should be placed in a red plastic bag with the biohazard label and closed tightly.
  8. Wash hands immediately after removing gloves.
  9. Contact the Coordinator of Environmental and Occupational Health & Safety (EOH&S) (ext. 2153) for directions on disposal of the bagged items.

### **5.5 Personal Protective Equipment (PPE)**

Where a possible occupational exposure remains after implementing engineering and work controls, employees must use personal protective equipment that NVCC provides. The college will replace or repair this equipment as necessary.

Appropriate PPE may consist of gloves, gowns, lab coats, eye protection, face shields or masks, and mouthpieces or other ventilation devices, depending on the anticipated exposure.

Supervisors must:

- Determine what level of PPE their staff needs (in consultation with the Coordinator of EOH&S, if needed).
- Assure that their staff have appropriate PPE and wear it as needed, and
- Make PPE readily accessible or issue it to the employee, in the appropriate sizes.

Employees must:

- Use protective equipment in all occupational exposure situations.
- Remove garments that become contaminated with blood or OPIM immediately, or as soon as possible,
- Replace all items that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens,
- Remove all PPE before leaving the work area. Gloves should always be the last item removed, and
- Place all items in the appropriate designated area or container for storage, cleaning, decontamination, or disposal.



## **6 Hepatitis B Vaccination**

All employees covered by this Exposure Control Plan will be offered immunization against Hepatitis B Virus (HBV) at no cost to the employee. The series of vaccines will be made available after the employee has received the training in occupational exposure and within ten working days of initial assignment.

Employees who decline the vaccine must sign the OSHA required waiver found in Appendix A. If the employee initially declines the vaccination, but at a later date decides to accept it, the vaccination shall then be made available as long as they are still covered by this Plan.

If at some point in time, the U.S. Public Health Service recommends a routine booster dose of the vaccine, the vaccination shall be made available at no cost to the employee.

Hepatitis B vaccinations and necessary boosters will be administered by our occupational medical provider, Concentra located at Thomaston Avenue, Waterbury, CT.

Records of vaccination and declination will be kept by the Coordinator of EOH&S.

## **7 Post Exposure Evaluation and Follow-up**

An exposure incident must be immediately reported to Public Safety Department (x8112) and the employee's supervisor. The incident will be documented and investigated fully.

Following a report of an exposure incident, the exposed employee shall report to one of the urgent care centers listed in the Employees' Policies and Procedures Manual.

The confidential medical evaluation and follow-up will include the following elements:

- Documentation of the route(s) of exposure
- A description of the circumstances under which the exposure occurred
- The identification and documentation of the source individual
- The collection and testing of the source individual's blood for HBV/HIV serological status.
- Post-exposure treatment for the employee, when medically indicated in accordance with the U.S. Public Health Service
- Counseling
- Evaluation of any reported illness

The healthcare professional evaluating the employee will be provided with the following information:

- A copy of this plan
- A copy of the OSHA Bloodborne Pathogen standard, 29 CFR 1910.1030
- An incident report with the following:
  - Route(s) of exposure
  - Circumstances of the exposure
- Results of source individual's blood testing, if available

- Medical records applicable to treatment of the employee, including vaccination status.

The employee will receive a copy of the evaluating healthcare professional's written report within 15 days of the completion of the exam. This written opinion will be limited to the information listed in Table 3. All other findings and diagnoses will remain confidential and will not be in a written report.

All medical evaluations shall be made by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional. All laboratory tests must be conducted by an accredited laboratory at no cost to the employee. All medical records will be kept in accordance with 29 CFR 1910.20.

**Table 3: Contents of Written Report**

Regarding the Hepatitis B Vaccine	Whether the employee needs the vaccine
	Whether the employee has received the vaccine
Regarding post-exposure evaluation and Follow-up	That the employee was informed of the results of the evaluation
	That the employee was informed about any medical conditions resulting from exposure to blood or OPIM that require further evaluation or treatment

## 8 Training

Employees covered under this policy shall be trained before assignment to a task where occupational exposure may take place, and at least annually thereafter. Additional training will be provided when changes to tasks or procedures affect the employee's occupational exposure.

Supervisors with responsibility for employees covered by this Plan must also attend an annual training session.

Supervisors will be provided a list of employees under their supervision who must attend a training session. They will be required to certify that these employees have attended an annual training session either at NVCC or another location. The form in Appendix B must be completed and signed by the supervisor, and then returned to the Coordinator of EOH&S for record keeping. It is the Supervisor's responsibility to request a makeup training session for their employees who fail to attend one of the prearranged training sessions offered by the Human Resources Department. Requests for a makeup sessions must be made to the Human Resources department.

Training records will be maintained by the EOH&S Department.

The training program will include at least the following elements:

- Access to the regulatory text of the Bloodborne Standard (29 CFR 1910.1030).
- Explanation of the following:

- The Exposure Control Plan and how to obtain a copy,
  - The epidemiology and symptoms of bloodborne diseases,
  - The routes of transmission,
  - The appropriate methods for recognizing tasks and other activities that may involve exposure to blood or OPIM,
  - The use and limitations of methods that will prevent or reduce exposure, including engineering and work place controls, and personal protection equipment, and
  - How personal protective equipment is selected.
- An opportunity for questions and answers.

## Appendix A:



### HEPATITIS B VACCINE DECLINATION STATEMENT

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline 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.

Reasons:

- Chooses not to accept vaccine
- Vaccinated previously
- Contraindicated – allergic to vaccine preparation

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Employee Name (Please Print)

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

