

## Bloodborne Pathogens Exposure Control Plan

Version Date: 07/21/2017

Last Reviewed Date: 07/21/2017

Effective Date: 01/31/1992

Applies To: Faculty, Staff and Student Employees

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### I. Purpose

The OSHA Bloodborne Pathogens standard [29 CFR 1910.1030\(c\) \(1\)](#), requires a written *Exposure Control Plan*.

### II. Scope

All University of Connecticut employees who, by the nature of their job required tasks have occupational exposure to blood or other potentially infectious materials shall be included in this plan.

Employee Inclusion in the Plan and Exposure Determination:

#### A) Departmental Job classifications in which all employees are covered and representative tasks and procedures that may involve exposure:

Division of Athletics:

- Physician-immediate care of sports injury (stabilize victim or dress minor wound).
- Trainer-immediate care of sports injury
- Graduate Assistant Trainer-immediate care of sports injury

Fire Department:

- Chief, Deputy Chief, Firefighter/EMT - Emergency first aid, stabilize for transport

Student Health Service:

- Physician-minor routine or emergency surgery, vaginal exams, venipuncture
- Nurse-wound dressing, venipuncture, vaginal exams
- Special Research Technician-venipuncture
- Clinical Laboratory Director-venipuncture, analysis of blood and OPIM.

- Medical Technologist-venipuncture, analysis of blood and OPIM.
- Laboratory Technician-venipuncture, analysis of blood and OPIM.
- Custodial Staff-routine clean-up of areas where blood or OPIM may be encountered, handling laundry soiled with blood and OPIM, disposal of contaminated waste.
- Radiology Technologist-positioning person with open wound for X-ray.

Police Department:

- Chief, Major, Captain, Lieutenant, Sergeant, Detective, Police Officer-assist accident victims, investigate accident/crime scenes, stop altercations, apprehend suspects.

**B) Departmental job classifications in which some employees are covered and representative tasks and procedures that may involve exposure:**

Department of Allied Health Sciences:

- Professor, Associate Professor, Assistant Professor, Graduate Assistant, Lecturer-venipuncture, analysis of blood and OPIM

Department of Molecular & Cell Biology:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-analysis involving materials of human origin.

Center for Environmental Health:

- Professor, Associate Professor, Assistant Professor, Graduate Assistant-analysis involving materials of human origin.

School of Nursing:

- Professor, Associate Professor, Assistant Professor, Lecturer-venipuncture, analysis of blood and OPIM

Department of Nutritional Sciences:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-venipuncture, analysis of materials of human origin.

Department of Kinesiology:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-venipuncture, analysis of materials of human origin, physical therapy (possible open wound on patient).

Department of Environmental Health & Safety:

- Managers, Specialists, Technicians-pick up and transportation of medical waste, access to and inspection of areas where blood and OPIM are stored or used

Department of Chemistry:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-chemical analysis of materials of human origin.

Department of Pathobiology:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician, Diagnostic Laboratory Staff-analysis or handling of known bloodborne agents and/or analysis of human blood and OPIM

Facilities Operations and Building Services:

- Supervising Custodian, Lead Custodian, Custodian-All university custodial personnel who are expected to clean up blood or OPIM spills shall be trained. The clean-up of blood and OPIM is a collateral duty and the University does not expect it to be a frequent occurrence.

Department of Dining Services:

- Manager, Assistant Manager, Area Manager, Assistant Area Manager-All university personnel who are expected to clean up blood or OPIM spills shall be trained. The clean-up of blood and OPIM is a collateral duty and the University does not expect it to be a frequent occurrence.

Student Union:

- Building Superintendent, Lead Custodian, Custodian, General Trades Worker, Skilled Maintainer-All university personnel who are expected to clean up blood or OPIM spills shall be trained. The clean-up of blood and OPIM is a collateral duty and the University does not expect it to be a frequent occurrence.

Child Development Center:

- Master Teacher-Master teachers will all be trained. Student teachers and/or support staff will receive bloodborne pathogen awareness training and are not designated as occupationally exposed.

School of Pharmacy:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-analysis involving materials of human origin.

School of Engineering:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-manipulation of human body fluids or equipment contaminated with materials of human origin.

Physiology and Neurobiology Department:

- Professor, Associate Professor, Assistant Professor, Post-Doctoral Fellow, Graduate Assistant, Technician-analysis involving materials of human origin.

Animal Care Services:

- Director, Associate Director, Manager, Specialist, Technician-handling and care of animals hosting materials of human origin

Any department not already listed in which faculty or staff is engaged in activities which manipulate or use human blood, human cell cultures or other materials of human origin not certified free of bloodborne pathogens.

**III. Policy Statement**

The University of Connecticut, Storrs and Regional campuses, will comply with the requirements of 29 CFR 1910.1030 Bloodborne Pathogens.

**IV. Enforcement**

Violations of this plan may result in appropriate disciplinary measures in accordance with University Laws and By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, and the University of Connecticut Student Conduct Code. Violations of OSHA regulations may result in State citations and fines.

**V. Definitions**

**Blood** means human blood, human blood components and products made from human blood

**Bloodborne Pathogens** means pathogenic microorganisms that are or may be present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), Hepatitis C virus (HCV), and human immunodeficiency virus (HIV).

**Engineering Controls** means controls (e.g.: sharps disposal containers and self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

**Occupational Exposure** means 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.

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

- i) 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,
- ii) any unfixed tissue or organ (other than intact skin) from a human (living or dead), and
- iii) 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.

**OSHA** means Occupational Safety and Health Administration

**Parenteral** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**Personal Protective Equipment (PPE)** means specialized clothing or equipment worn by an employee for protection against a hazard (e.g.: gloves, face protection, masks, gowns, etc.). General work clothes (uniforms) not intended to function as protection against a hazard are not considered to be personal protective equipment.

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Other definitions may be found in the text of the regulation ([29 CFR 1910.1030](#)).

## VI. Responsibilities

- A) Deans, Directors and Department Heads who employ persons who are covered by provisions of 29 CFR 1910.1030 shall report pertinent employee information to the Department of Environmental Health and Safety (EH&S) for all covered employees. All newly hired employees covered by this regulation and employees who through transfer or change of job description become covered by this standard shall also be reported to EH&S for inclusion under the plan.
- B) All required training, personal protective equipment, engineering controls, record keeping, other supplies and testing necessary for compliance with the standard shall be supplied at no cost to the employee.
- C) All covered employees shall be offered immunization against Hepatitis B Virus (HBV) and/or any other job appropriate immunizations
- D) It is the responsibility of each supervisor (including Deans, Directors, Managers, etc.) to assure that all persons under their supervision work in a safe and healthy environment and are aware of the potential hazards of their assigned activities.
  - **Please note** - *Students performing tasks that put them at risk as part of their learning experience (not paid for work) are not covered by this standard. However, it is the responsibility of the educator to inform the students of the risks involved how tasks and procedures are to be conducted in a safe manner, and to inform them that hepatitis B immunization is available through their health plan or from their personal physicians. Departments may require hepatitis B vaccination as a prerequisite for certain courses of study if exposure is likely.*
- E) It is the responsibility of each supervisor (including Deans, Directors, Managers, etc.) to ensure that worksites under their control are maintained in a clean and sanitary condition. They shall determine and implement an appropriate written schedule for cleaning and method(s) for decontamination based upon the location within the facility, type of surface to be cleaned, type of matter or contaminant present and tasks or procedures being performed in the area. This written schedule shall become part of the Exposure Control Plan for that location. All equipment and environmental and working surfaces shall be cleaned and decontaminated as defined below or in accordance the worksite

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standard operating procedures (SOP) after contact with blood or other potentially infectious materials (OPIM).

**VII. Procedures**

**A) General requirements for work practices and controls:**

- 1) Personal protective equipment:
  - a) When there is occupational exposure, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection and ventilation devices shall be supplied.
  - b) The personal protective equipment, in appropriate sizes, must be readily accessible at the worksite or issued to the employee.
  - c) Laundry service, cleaning materials and disposal service for the maintenance or disposal of personal protective equipment shall be supplied by the employer.
  - d) Personal protective equipment shall be repaired or replaced by the employer as needed to maintain its effectiveness.
  - e) Each supervisor is responsible for assuring that employees under their control avail themselves of appropriate personal protective equipment.
  - f) Standard (Universal) precautions to prevent contact with blood or other potentially infectious materials shall be observed.

**B) Personal hygiene:**

- 1) Hand washing facilities or effective portable decontamination materials shall be readily available in areas where exposure to blood or other potentially infectious materials is likely.
- 2) Employees shall wash their hands after removing gloves and/or other personal protective equipment.
- 3) Employees shall wash their hands and other skin areas with soap and water for at least 20 seconds or flush mucous membranes with water for 15 minutes immediately or as soon as feasible following contact with blood or other potentially infectious materials.
- 4) If a garment is penetrated by blood or other potentially infectious material, the garment shall be removed immediately or as soon as feasible (refer to above).
- 5) All personal protective equipment shall be removed prior to leaving the work area. If gloves must be worn when leaving one work area to access another, the one glove on-one glove off rule shall be followed.
- 6) Reusable personal protective equipment, if contaminated, shall be decontaminated and inspected prior to reuse.

- 7) Contaminated needles and other sharps shall not be bent, sheared or broken. Recapping or removing needles is prohibited unless it can be demonstrated that no alternative is feasible or that such action is required by a specific medical procedure. If recapping or removal of needles is required, a justification letter must be submitted to EH&S/Biosafety for review/approval prior to implementing the procedure. The recapping or removal, if done, must be accomplished through the use of a mechanical device or a one-handed technique.
- 8) Approved sharps disposal containers must be available as close to the work site as practical. The Department of Environmental Health and Safety provides sharps containers.
- 9) In healthcare settings, the use of needleless systems or engineered sharps injury protection devices shall be incorporated where practical as required by 29CFR Part 1910, Needlesticks and Other Sharps Injuries, January 18, 2001, final rule. The use of safer medical devices must be considered as technology changes.
- 10) In healthcare settings, the use of sharps and engineered sharps injury protection devices should be reviewed annually or more often as needed to consider changes in technology.
- 11) Consideration should be given to reduce or eliminate occupational exposure to needles.
- 12) Solicitation of input from non-managerial employees responsible for direct patient care who are potentially exposed to sharps should be sought as to evaluation and selection of effective engineering controls and work practice controls.
- 13) 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 and contain an appropriate tuberculocidal solution.
- 14) Eating drinking, smoking, applying cosmetics or lip balm and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure. Hand cream is not considered a "cosmetic" and is permitted. However, some petroleum-based hand creams can adversely affect glove integrity.
- 15) Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.
- 16) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering and generation of aerosols or droplets of these substances.



- 17) Where practical, physical barriers (engineering controls) shall be instituted and maintained to protect employees from exposure.
- 18) Mouth pipetting is prohibited.
- 19) Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport or shipping.
- 20) Labels that incorporate the universal "Biohazard Symbol" shall be used where required (see Hazard Communication).
- 21) Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless decontamination is shown to be not feasible. If complete decontamination is not accomplished, a readily observable label shall be attached to the equipment stating which portions remain contaminated (see sample label A).

**C) Housekeeping, General:**

- 1) Contaminated work surfaces shall be decontaminated with an appropriate tuberculocidal disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.
- 2) An appropriate disinfectant is defined as one that is approved by the U.S. Environmental Protection Agency for the intended use (tuberculocidal) and mixed to the appropriate strength or a 1:10 solution of 5.25% sodium hypochlorite (regular strength household bleach) and water. The disinfectant must be readily available to the work site, maintained at the necessary strength and afforded adequate contact time to accomplish the goal.
- 3) Protective coverings, such as plastic wrap, aluminum foil, imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the work shift if they may have become contaminated during the shift. If these coverings are compromised causing contamination of a work surface, see above.
- 4) All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected each time before being put into service and decontaminated after use.
- 5) Broken glassware which may be contaminated with human body fluids shall not be picked up directly with the hands. It shall be handled using mechanical means, such as a brush and dustpan, tongs or forceps. The contaminated

broken glassware shall be placed in a puncture resistant container and disposed as medical waste. Decontamination of the broken glassware by autoclave or chemical means may be necessary to protect subsequent handlers of the waste.

- 6) Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires persons to reach by hand into the containers where these sharps have been placed until after decontamination has been completed and documented.

**D) Regulated waste:**

- 1) All regulated waste (medical/biological, chemical and radioactive) shall be disposed of in compliance with established University policy.

**E) HIV and HBV Research Labs:** There are currently no HIV and HBV research laboratories or production facilities.

**F) Hepatitis B vaccination and post exposure evaluation:**

- 1) All covered state of Connecticut employees shall be offered immunization against Hepatitis B Virus (HBV).
  - a) The prescreening, hepatitis B vaccinations, post screening and necessary boosters is currently administered by CorpCare Occupational Health in compliance with current recommendations.
  - b) Employees who refuse to participate in a prescreening program will not be excluded from the program.
  - c) Employees, who initially decline hepatitis B vaccination but at a later date, while still covered under the standard, decide to accept the vaccination shall be given such in a timely manner.
  - d) Covered employees who decline to accept hepatitis B vaccination when offered, shall sign the Hepatitis B Notification form. The Notification form is given out during Initial Bloodborne Training.
  - e) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available to all covered employees.

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- 2) All covered student employees shall be offered immunization against Hepatitis B Virus (HBV).
    - a) The prescreening, hepatitis B vaccinations, post screening and necessary boosters will be administered by the Student Health Service in compliance with current recommendations.
    - b) Student employees who refuse to participate in a prescreening program will not be excluded from the program.
    - c) Student employees, who initially decline hepatitis B vaccination but at a later date, while still covered under the standard, decide to accept the vaccination shall be given such in a timely manner.
    - d) Covered student employees who decline to accept hepatitis B vaccination when offered, shall sign the Hepatitis B Notification form. The Notification form is given out during Initial Bloodborne Training.
    - e) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available to all covered employees.
  
  - G) Post exposure incident evaluation and follow-up (student or non-student):**
    - 1) An exposure incident shall be reported by the employee to the supervisor, manager, director or dean who shall complete the "First Report of Injury" (form DAS WC-207) found at <http://web2.uconn.edu/hrnew/docs/WC207.pdf>.
    - 2) The employee or the supervisor should call 911. University ambulance will transport the injured employee to Windham Hospital or other approved ER for a confidential medical evaluation and follow-up. Ambulatory employees may report to UConn Health Urgent Care at Storrs Center. The healthcare provider should be informed that the exposure incident occurred at the University of Connecticut. The medical evaluation and follow-up shall include the following:
      - a) Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred;
      - b) Identification and documentation of the source individual, unless proven infeasible or prohibited by law;
      - c) The source individual's blood shall be tested as soon as feasible after consent is obtained for determining HIV and HBV status or documentation of refusal to test shall be obtained. If the source individual's consent is not required by law, the blood, if available, shall be tested and the results documented (note - if positive status of the source has already been established, retesting is not required);

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- d) Results of the source individual's testing shall be made available to the exposed employee and the employee shall be informed of laws regulating the disclosure of the identity and infectious status of the source individual;
  - e) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained;
  - f) If the employee consents to baseline blood collection but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.
  - g) If circumstances cause the employee to report to Student Health Services instead of a hospital emergency room, Student Health Services will provide triage and arrange for University ambulance to transport the employee to Windham Hospital or other approved ER.
  - h) Any University of Connecticut student who is exposed to human blood or OPIM at a Clinical Internship site should seek immediate evaluation and care at their clinical site (as directed by their Clinical Advisor). This exposure incident should be reported to Student Health Services within 24 hours for review and to arrange for post exposure follow-up testing.
- 3) Post exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service will be offered to the exposed worker.
  - 4) Counseling of the exposed worker will cover the topics of symptomology, risk of disease transmission and behavior modification recommended for at risk individuals.
  - 5) Exposed employees are encouraged to report illness symptoms consistent with HIV, HBV and HCV infection for the six-month period immediately following exposure. The healthcare provider's written opinion shall be made available to the employee as soon as possible. The evaluation shall contain the following information:
    - a) Hepatitis B vaccination status of the employee and vaccination or booster advisability;
    - b) Statement that the employee has been informed of the results of the evaluation and has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation. (All other findings or diagnoses shall remain confidential and shall not be included in the written report)

**H) Hazard Communication and Training:**

- 1) Labels and signs:
  - a) Warning labels shall be affixed to equipment used with, or containers used to store, transport or ship blood or other potentially infectious materials except as noted in e, f and g below. This includes containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material, water baths, incubators and any other equipment used with human blood or OPIM.
  - b) Labels required by this section shall include the universal biohazard symbol and the word BIOHAZARD.
  - c) The labels shall be fluorescent orange or orange-red with lettering and symbols of a contrasting color, usually black.



- d) Required labels shall be affixed as close as feasible to the container by string, wire, adhesive or other method that prevents their loss or unintentional removal.
  - e) Red bags or red containers may be substituted for labels.
  - f) Containers of blood, blood products or blood components that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of H.1.a).
  - g) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.
  - h) Labels required for contaminated equipment shall be in accordance with this section and shall also state which portions of the equipment remain contaminated.
  - i) Regulated medical waste shall be accumulated, stored and disposed of in accordance with established University policy.
  - j) Signs shall be posted at the entrance to work areas in accordance with the University's Biological Safety Policy.
- 2) Training required by the standard shall be provided as follows:
    - a) At the time of initial assignment to tasks where occupational exposure may take place;

b) At least annually thereafter.

**I) Record Keeping:**

- 1) A sharps injury log must be maintained by each department in health care settings. The log shall contain the type and brand of device involved in the incident, the department or work area where incident occurred, and an explanation of how the incident occurred. Employee identification shall be kept confidential and not used as part of the log.
- 2) The medical record for employees included in this plan shall contain the following:
  - a) Name and University issued identification number of the employee;
  - b) The employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by this rule;
  - c) A copy of all results of examinations, medical testing, and follow-up procedures as required. The medical record shall be maintained by the University or designated agency for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.20.
- 3) Training records shall include the dates of the training sessions, contents or summary of the training session, name(s) and qualifications of the trainer(s) and names and job titles of all persons attending the sessions. The records shall be maintained for a minimum of 3 years from the date on which the training occurred.
- 4) Availability of records:
  - a) All records shall be made available to Assistant Secretary of Labor and the Director of the Occupational Safety and Health Administration.
  - b) Employee training records shall be provided upon request for examination and copying to employees, to employee representatives, and Occupational Health and Safety Administration personnel in accordance with 29 CFR 1910.20.
  - c) Employee medical records shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative and to the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.
- 5) The University shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.20 (h).

**J) Specific Protocol for Infection Control and Housekeeping:**

The University, by nature, is a diverse and dynamic institution. Therefore, an annual review of the Exposure Control Plan may not adequately address the changes that take place in some departments or departmental subdivisions. Each University department having workers covered by this standard shall review tasks and procedures that involve possible occupational exposure when changes in the program or operation warrant this action. The Department of Environmental Health and Safety will assist in the development of a department specific exposure control protocol. The specific protocol shall be made available to the employees in those departments in addition to the overall Exposure Control Plan.