

Animal Research Exposure Control Program

Purpose and Scope

Employees working with animals in a research environment may be exposed to a variety of occupational risks including animal bites and scratches, needle sticks, exposure to zoonotic agents, allergens, or hazardous chemicals, etc., in addition to the more generic musculoskeletal risks associated with normal work duties that may involve lifting, pushing, pulling, bending, etc. In order to prevent accidents or exposures from occurring, all employees must understand the risks involved with such work and must also be familiar with basic safety precautions for work with animals.

This program applies to all who can reasonably expect to come into contact with laboratory research animals at West Chester University.

Responsibilities

Environmental Health and Safety

- Establishing and maintaining this plan.
- Reviewing and updating the plan at least annually.
- Identifying employees covered by this plan.
- Providing or arranging for Bloodborne Pathogens training.
- Coordinates a medical surveillance program for animal workers.
- Facilitating the immunization program.
- Providing and maintaining Hepatitis B Vaccine Declaration Forms.
- Managing infectious waste.
- Providing or arranging training in proper body mechanics as it relates to the prevention of musculoskeletal injuries.

Supervisors and Managers

- Assess the risks of employees and ensure they are participating in and comply with the Bloodborne Pathogens Exposure Control Plan.
- Developing and communicating job specific exposure control procedures.
- Ensuring affected employees are trained, enrolled in the university's Medical Surveillance Program and offered the Hepatitis B vaccine with 10 days of initial assignment.
- Ensuring hand washing facilities are readily available
- Referring exposures to Occupational Health Services.
- Reporting exposures to EHS.

Employees

- Following the procedures and requirements as outlined in this plan.
- Reporting exposures to their manager or supervisor immediately.
- Enroll in Medical Surveillance Program.
- Completing the Hepatitis B Vaccine Declaration Form.
- Completing all training as required.

Procedures

Universal Precautions

Universal Precautions are followed whenever there is a potential for exposure to blood or other potentially infectious materials (“OPIM”). Universal Precautions is an approach to protecting employees that requires all blood and OPIM to be assumed to be infectious. Engineering controls, work practices, and PPE are used to prevent exposure to blood and OPIM.

Urine, feces, nasal secretions, sputum, tears, vomit, and saliva are not usually considered OPIM unless they contain visible blood; however, in situations in which differentiation between and among body fluid types is difficult or impossible and/or the presence or absence of visible blood difficult or impossible to determine, all human body fluids are considered OPIM.

Medical Surveillance

WCU has an [Accident and Illness Prevention Program \(AIPP\)](#) to ensure policies and programs are in place to protect the WCU community from health and safety hazards and prevent injuries and illnesses from occurring. The [Occupational Health and Medical Surveillance Program](#) is one part of this program and serves to provide risk assessment and risk reduction strategies for all individuals with exposure to research animals at WCU. All employees who have contact with animals used in research or teaching must be enrolled in a medical surveillance program to evaluate their potential health risks from allergens and zoonoses. EHS coordinates a medical surveillance program for animal workers.

- **Medical Surveillance Evaluation and Questionnaire:** The medical evaluation will involve, at a minimum, the review of the Animal Handler Medical Questionnaire
- **Occupational Medicine Provider:** Medical consultations and/or services for West Chester University employees are provided by:

Occupational Health Center
915 Old Fern Hill Road
Building A, Suite 3
West Chester, PA 19380
(610) 738-2450

Hepatitis B Virus (HBV) Vaccination

All employees under this plan will be offered the HBV vaccination series at no cost within 10 working days of assignment. Employees may choose to take the vaccine or decline. Employees who decline the vaccine must complete the Hepatitis B Declination form (Appendix A). Employees may initially decline the vaccine and choose to take the vaccine at a later date.

Information about the vaccine, its efficacy, safety, method of administration, and the benefits of being vaccinated will be provided to the employee during bloodborne pathogens training.

Engineering and Work Practices

Needleless Systems and Sharps with Engineered Injury Protections

- Needleless delivery systems or needles with engineered safety features must be used wherever and whenever feasible, including self-sheathing needles, retractable hypodermic needles, and needle guards and shields.
- The use and implementation of needleless delivery systems or needles with engineered injury protection must be evaluated as part of the annual review of this plan.
- Employees must have an opportunity to evaluate engineered sharps injury-prevention devices and needleless systems.

Sharps Containers

- Sharps containers must meet the following criteria for the disposal of all needles and other sharps:
 - Able to be closed with a tight-fitting lid that is designed to prevent sharps from coming out
 - Made of puncture-resistant plastic
 - Leak-proof on sides and bottom
 - Stable so that it remains upright
 - Red in color and/or labeled with the universal biohazard symbol

Sharps Handling

- Do not recap, bend, or break needles. If recapping a needle is necessary, use a one-hand scoop method or use forceps.
- Do not remove needles from disposable syringes.
- Never pick up sharps with your hands, even when wearing gloves. Use tongs, forceps, or a dustpan with broom.
- Do not leave needles or other sharps on a work surface.

Sharps Disposal

- Never dispose of sharps in the regular trash, even un-used sharps.
- Position sharps containers as close to the work area as possible. Bring a sharps container to the location of use if there is not one present.
- Dispose of needles and sharps in the location of use to minimize transport.
- Dispose of needles and all other sharps immediately after use in a sharps container.
- Do not fill sharps container beyond $\frac{3}{4}$ full. Sharps containers are marked with a fill line.
- Contact EHS for disposal when sharps container is full.

Hand Washing

- A sink with warm running water and soap must be readily accessible to all employees with potential exposure to blood or OPIM.
- If a sink is not readily accessible, an alcohol-based hand sanitizer containing at least 60% ethyl or isopropyl alcohol must be provided as an intermediate measure until the employee can get to a sink.

- Wash hands with soap and warm water immediately when there is a suspected exposure to blood or OPIM, even if wearing gloves. Remove gloves prior to washing hands.

Additional Work Practices

- Do not eat, drink, smoke, apply cosmetics or lip balm, handle contact lenses, or touch eyes, nose, or mouth in areas where there is a potential for occupational exposure to blood or OPIM.
- Conduct all procedures involving blood or OPIM in a manner that minimizes splashing, splattering, or generation of droplets. When feasible, conduct procedures in a certified biosafety cabinet.

Personal Protective Equipment (PPE)

Requirements

- At a minimum, wear gloves and safety glasses whenever there is a potential exposure to blood or OPIM. Disposable nitrile gloves are recommended in place of latex gloves to prevent allergic reactions in individuals who are or may be allergic to latex.
- Wear additional PPE to protect eyes, face, mouth, and skin, including face shields, masks, goggles, and disposable gowns or lab coats whenever there is a splash risk.
- Use a pocket mask or other barrier device when performing CPR.
- All required PPE is provided to employees free of charge.

Cleaning, Laundering, or Disposal

- Dispose of all single-use PPE immediately after use. Contaminated PPE is disposed of as infectious waste.
- Launder all contaminated reusable protective clothing on-site.
- Place contaminated laundry in a leak-proof bag and handle using Universal Precautions.
- Laundering procedures are department/location specific and are defined in department exposure control procedures.

Decontamination and Spill Response

Decontamination

- Disinfect all surfaces where work with blood or OPIM is conducted upon completion of work or at the end of the workday.
- Follow manufacturer label for disinfectant contact time.

Housekeeping

- Decontaminate work surfaces with an appropriate disinfectant after completion of procedures, immediately when overtly contaminated, after any spill of blood or other potentially infectious materials, and at the end of the work shift when surfaces have become contaminated since the last cleaning.
- Remove and replace protective coverings such as plastic wrap and aluminum foil when contaminated.
- Inspect and decontaminate, on a regular basis, reusable receptacles such as bins, pails, and cans that have a likelihood for becoming contaminated. When contamination is visible, clean and decontaminate receptacles immediately, or as soon as feasible.

- Always use mechanical means such as tongs, forceps, or a brush and a dust pan to pick up contaminated broken glassware; never pick up with hands even if gloves are worn.
- Store or process reusable sharps in a way that ensures safe handling.
- Place regulated waste in closable and labeled or color-coded containers. When storing, handling, transporting, or shipping, place other regulated waste in containers that are constructed to prevent leakage.
- When discarding contaminated sharps (including safer medical devices), place them in containers that are closable, puncture-resistant, appropriately labeled, or color-coded, and leak-proof on the sides and bottom.
- Ensure that the sharps containers are easily accessible to personnel and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found. Sharps containers also must be kept upright throughout use, replaced routinely, closed when moved, and not allowed to overfill.
 - Never manually open, empty, or clean reusable contaminated sharps disposal containers.
 - Discard all regulated waste according to federal, state, and local regulations, i.e., liquid or semi-liquid blood or other potentially infectious material; items contaminated with blood or other potentially infectious materials that would release these substances in a liquid or semi-liquid state if compressed; items caked with dried blood or other potentially infectious materials and capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Spill Response

- Only trained employees are permitted to clean-up small blood or OPIM spills.
- A small spill is a spill that can be cleaned up by no more than two employees within a short period of time (less than 1 hour) and does not require any specialized cleaning applications or equipment. Report any spills larger than a small spill to your supervisor and/or EHS.
- Wear PPE for splash risk when cleaning a blood or OPIM spill.
- Follow spill procedures in Appendix B when cleaning a blood or OPIM spill.

Exposure/Post-Exposure Response

Immediate Response

- Immediately wash exposed skin with soap and warm water and flush eyes or mucous membranes using an eyewash or running water.
- Immediately report any exposure or suspected exposure to blood or OPIM to your supervisor, manager, and or EHS.
- Seek medical attention at Occupational Health Center (during working hours) or local hospital emergency department (after hours).

Post Exposure

- A confidential medical evaluation will be offered immediately after the exposure. The medical evaluation will be conducted by a licensed physician or health care provider and will include the following:

- Documentation of the route(s) of exposure and circumstances under which the exposure happened.
- Identification and documentation of the source (individual, material) of exposure, if possible.
- Collection and testing of blood to detect the presence of HIV and/or HBV and/or HCV. In the event the employee does not give permission for serologic testing, a baseline blood sample will be held for 90 days.
- Post exposure prophylactic treatment when medically indicated.
- Counseling about the results of testing and information regarding laws concerning disclosure of the information.
- Follow up care will be provided when medically indicated.
- Medical evaluations will be provided at no charge to the employee.
- A limited medical report will be provided to EHS within 15 days that will consist of the following information:
 - Whether the Hepatitis B vaccine is indicated for the employee and if the employee received the vaccine.
 - Confirmation that the medical evaluation took place, and the employee has been provided with results and counseling. (The results are not provided in this report.)
 - All other findings remain confidential.

Sharps Injury Log

- All sharps' injuries must be recorded in a Sharps Injury Log. The Sharps Injury Log must include the following information:
 - Date and time of exposure
 - Type and brand of sharp involved in the exposure
 - Description of the exposure
 - Job classification of exposed employee
 - Department or work area where exposure occurred
 - Procedure which exposed employee was performing at time of exposure
 - How exposure occurred
 - Body part involved in exposure
- If the sharp had engineered sharps injury protection, the log must indicate whether the protective mechanism was activated and whether the injury occurred before, during, or after activation of protective mechanism.
- If the sharp had no engineered sharps injury protection, the log must indicate whether and how such a mechanism could have prevented the injury.
- The Sharps Injury Log must include an assessment of whether any other engineering or work practice control could have prevented the injury.

Communication of Hazards

The universal biohazard symbol is used to indicate the presence of blood or OPIM.

Waste Bags and Sharps Containers

Use only waste bags and sharps containers that are marked with the universal biohazard symbol. The biohazard symbol must be integral to the bag or container or securely affixed with adhesive or other method that prevents accidental removal.

Biohazard Labels

Label entrances to rooms, refrigerators, freezers, containers, and equipment where blood or OPIM are used or stored with the universal biohazard symbol. Securely affix the label to prevent accidental removal.

Training

All employees covered under this plan will be trained upon initial assignment and annually in a manner that provides them the opportunity to ask questions. Training will include information on:

- Bloodborne pathogens and diseases
- Universal precautions
- Engineering controls, work practices, and PPE used to prevent exposure
- Hepatitis B vaccine
- Exposure/post-exposure response and follow-up
- Decontamination and spill response

Recordkeeping and Documentation

EHS will maintain:

- Training records for at least three years following the training.
- Hepatitis B Declination forms for the duration of employment.
- Sharps Injury Logs for a minimum of 5 years.

Occupational Health Center

The Occupational Health Center maintains all medical records associated with exposures to blood or OPIM for the duration of employment plus thirty years.

- Address: 915 Old Fern Hill Rd #3, West Chester, PA 19380 (610) 738-2450

Key Definitions

Bloodborne Pathogens: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but not limited to hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

Exposure Incident: Blood or OPIM contact with eye, mouth, other mucous membranes, non-intact skin, or injection. Examples include needlesticks, splash or spatter to the face, and contact with an open wound or a scratch.

Other Potentially Infectious Materials (OPIM): Other potentially infectious materials (OPIM) include:

- 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 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.

- Any unfixed tissue, organ (other than intact skin), and body parts (except teeth and the contiguous structures of bone and gum) from a human (living or dead).
- 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.
- Cultures and stocks of agents infectious to humans and associated biological; wastes from the production of biological; discarded live or attenuated vaccines; culture dishes and devices used to transfer, inoculate, or mix cultures.
- Waste materials originating from animals inoculated during research, production of biological, or pharmaceutical testing with agents infectious to humans; carcasses, body parts, blood, or bedding of animals known to have been in contact with agents infectious to humans.

Sharps: Objects that can penetrate the skin, including hypodermic needles, syringes (with or without needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, culture dishes, suture needles, slides, cover slips, and broken glassware or plasticware.

Universal Precautions: An approach to infection control in which all human blood and OPIM are treated as if known to be infectious for human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other bloodborne pathogens.

References

- The Commonwealth of Pennsylvania Guidelines on Bloodborne Pathogens for the Public Sector
- PA General Assembly 2001 Act 96
- OSHA Bloodborne Pathogens Standard 29 CFR 1910.1030
- Needlestick Safety and Prevention Act

Reviewed: October, 2024

Appendix A: Hepatitis B Vaccination Declination Form

HEPATITIS B VACCINE DECLINATION FORM (MANDATORY)

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 the Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, which is 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 the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature: _____

Printed Name: _____

Date: _____

Appendix B: Small Blood and OPIM Spill Clean-Up Procedure

This procedure applies to cleaning up a small blood or OPIM spill. A small spill is defined as a spill that can be cleaned up by one employee within a short period of time (less than 1 hour) and does not require any specialized cleaning applications or equipment. A good rule of thumb is less than 8 ounces/250 ml. Report any spills larger than a small spill to your supervisor and/or EHS.

1. Isolate the area to minimize exposure to people not involved in the clean-up.
2. Gather needed supplies:
 - Disinfectant (if using bleach solution, prepare fresh 10% bleach solution)
 - Personal protective equipment (PPE)
 - Biohazard waste bags
 - Tongs, forceps, or dustpan and brush
 - Absorbent paper towels
 - Absorbent powder and scoop (if using)
3. Wear personal protective equipment to protect yourself from exposure:
4. Disposable nitrile gloves (double glove if hand contact is anticipated)
 - Safety glasses
 - Face mask or face shield if splash or spray is anticipated
 - Disposable gown, coveralls, or lab coat if contact with clothing is anticipated
 - Disposable booties if shoe contamination is anticipated
5. Use tongs, forceps, or a dustpan and brush to pick up broken glass or other sharps in the spill area and place in a sharps container. Never pick up broken glass or other sharps with your hand, even if wearing gloves.
6. Gently place absorbent material over the spill, such as paper towels or absorbent powder. Use adequate materials to ensure that spill is completely covered. If absorbent powder is used, use a paper towel to compress the powder to ensure no liquid remains.
7. Saturate the absorbent material with the disinfectant. Pour slowly to minimize aerosols. Allow the disinfectant to soak the area for at least 20 minutes (for 10% bleach solution) or the duration of the contact time listed on the manufacturer label.
8. Place the absorbent material in a biohazard bag.
9. Clean spill area again with disinfectant and dispose of additional absorbent materials in biohazard bag.
10. Disinfect contaminated reusable PPE and equipment by placing it in a disinfectant solution (i.e., safety glasses, tongs). Allow to soak for the appropriate contact time, rinse, and dry thoroughly.
11. Carefully remove disposable PPE to prevent direct skin contact and place in biohazard bag.
12. Wash hands with soap and warm water.
13. Contact EHS for disposal of the waste.