

UNIVERSITY OF CALIFORNIA, BERKELEY


EXPOSURE CONTROL PLAN



Berkeley EH&S

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PURPOSE OF THE UC BERKELEY EXPOSURE CONTROL PLAN

The Bloodborne Pathogen Standard was put into effect by the California Division of Occupational Safety and Health (Cal/OSHA) as part of the [California Code of Regulations \(CCR\) under Title 8 §5193](#). The purpose of the Bloodborne Pathogen Standard is to reduce occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), Hepatitis C Virus (HCV), and other potentially infectious bloodborne pathogens that employees may encounter in their workplace.

The UC Berkeley Exposure Control Plan (ECP) describes how to eliminate or minimize the exposure of all UC Berkeley personnel to human and nonhuman primate blood or blood products and other potentially infectious materials (OPIM) that might contain bloodborne pathogens (BBPs).

At-risk workers at UC Berkeley must be aware that there are a number of general principles that should be followed when working with BBPs or materials potentially containing BBPs:

- An effective Hepatitis B Virus (HBV) vaccine is available for students and employees who may be at occupational risk for exposure to HBV. This vaccination is to be offered to individuals at no cost, can be accepted at any time, and can be formally declined by signing a [HBV vaccine declination form](#), which is kept on file with Principal Investigator (PI) or supervisor responsible for the occupational safety of the student or employee. Vaccinations can be obtained at the University Health Services Tang Center.
- Appropriate personal protective equipment (PPE) such as gloves, safety glasses or goggles, and laboratory coats must be worn when handling blood or OPIM.
- Engineered sharps and needleless systems must be used whenever possible or feasible. The use of sharps and needles must be minimized when working with blood or OPIM.
- All personnel handling human blood or OPIM, including emergency response personnel, must be trained at the time of initial assignment to tasks where occupational exposure may take place prior to initiation of bloodborne pathogen related tasks, and annually thereafter.
- All regulated waste contaminated with bloodborne pathogens must be disposed of properly as biohazardous or sharps medical waste.
- All contaminated equipment and areas must be labeled with the universal biohazard symbol.
- The University of California will institute as many engineering and work practice controls as possible to eliminate or minimize employee exposure to bloodborne pathogens. Such controls may include but are not limited to using a biosafety cabinet for aerosol generating procedures or handwashing with hand soap at the conclusion of work.

This Exposure Control Plan is designed to meet the letter and intent of the Cal/OSHA Bloodborne Pathogens Standard as well as the hazard communication requirements of the Injury Illness and Prevention Program Standard, Title 8, CCR 3203. The objective of this plan is twofold:

- **To protect faculty, staff employees and students from the health hazards associated with bloodborne pathogens.**
- **To provide appropriate post-exposure follow up and counseling should any student or employee be exposed to bloodborne pathogens.**

Please complete the [Exposure Control Plan template](#) to create a site-specific Exposure Control Plan. Please direct any concerns or questions to the campus biosafety officer at (510) 643-9366.



UC Berkeley Exposure Control Plan

ADMINISTRATIVE INFORMATION

REGULATORY BASIS

The California Code of Regulations (CCR), Title 8, Section 5193, requires that the UC Berkeley prepare and implement an exposure control plan for at-risk employees and students who work with human blood or other potentially infectious materials (OPIM). The enforcement agency for this standard is the California Division of Occupational Safety and Health, Department of Industrial Relations (Cal/OSHA).

BACKGROUND

Cal/OSHA has issued a standard that requires employers to take appropriate measures to protect workers who have occupational exposure to bloodborne pathogens such as the Human Immunodeficiency Virus (HIV), the Hepatitis B Virus (HBV) and the Hepatitis C Virus (HCV). This rule is designed to protect millions of workers and is predicted to prevent over 200 deaths and 9,200 bloodborne infections in health care, academia and industry each year. This standard requires that UC Berkeley identify at-risk employees and students and then mandate work practices, engineering controls and personal protective equipment along with training for all individuals who may be reasonably expected to have contact with blood or other potentially infectious materials while performing their jobs.

STATEMENT

It is the policy of UC Berkeley to maintain a safe and healthy workplace for any employee who must work with human blood and other potentially infectious materials. The requirements of the Cal/OSHA Bloodborne Pathogen Standard are the basis of this policy. All UC Berkeley employees, student workers, and post-doctoral fellows are required to follow the program elements described in the institutional exposure control plan.

PURPOSE

The purpose of the Bloodborne Pathogen Standard is to minimize the risk of occupational exposure to blood and other potentially infectious materials (OPIM) that include but are not limited to the Human Immunodeficiency Virus (HIV), the Hepatitis B Virus (HBV) and the Hepatitis C Virus (HCV).

SCOPE AND APPLICABILITY

The bloodborne pathogen program covers all university employees who have occupational exposures with blood or potentially infectious materials during their normal job duties. See [Appendix B](#) for the job classifications specifically covered under this program.

RESPONSIBILITIES

THE OFFICE OF ENVIRONMENT, HEALTH & SAFETY (EH&S)

Develop and maintain the Bloodborne Pathogen Program/Exposure Control Plan. A copy of the plan is available on the EH&S web page.

Provide exposure determination criteria for bloodborne pathogens for specific job categories or classifications.

Assist departments in training, selection of materials, and development of compliance guidelines.

Conduct an annual assessment to determine the Exposure Control Plan's effectiveness.

Update the plan upon regulatory changes or as necessary.

TANG CENTER DIRECTOR, UNIVERSITY HEALTH SERVICES

Assist EH&S in the development and review of the BBP program.

Assist EH&S in determining job categories affected by this program.

Administer the Hepatitis B vaccination series as necessary.

Act as a resource for the BBP Program.

DEANS, DIRECTORS, DEPARTMENT CHAIRS, ADMINISTRATORS

Provide the resources necessary to obtain the appropriate safety equipment to reduce the risk of exposure to affected employees.

Assist in the annual review and audit of the Exposure Control Plan.

Ensure that all employees that may have occupational exposure to BBPs are offered Hepatitis B vaccinations in accordance with Title 8 §5193.

Ensure that all exposure incidents are reported to the Office of Environment, Health and Safety (EH&S) and that the provisions of post-exposure evaluations and follow-up are followed.

SUPERVISORS

Provide specific training for those affected by the bloodborne pathogen program and the UC Berkeley Exposure Control Plan.

Identify tasks and procedures where occupational exposure may occur.

Document training.

Ensure that employees are wearing the proper personal protective equipment (PPE) and adequate that supplies are available.

Ensure that all employees who may have occupational exposure to BBPs are offered Hepatitis B vaccinations.

Maintain records of vaccination declinations.

Ensure that all exposure incidents are reported to the Office of Environment Health and Safety (EH&S) and that the provisions of post-exposure evaluations and follow-up are followed.

AFFECTED EMPLOYEES

Review and become familiar with the applicable components of the UC Berkeley Exposure Control Plan.

Participate in BBP training at the time of initial assignment to tasks where exposure to BBPs may occur, and annually thereafter.

Adhere to the practices and procedures of universal precautions.

Report any exposure, accident, injury or illness to their supervisor or to EH&S immediately, or within 8 working hours for spills.

METHODS OF COMPLIANCE

Universal Precautions

Universal precautions is an approach to infection control, and involves behaving under the assumption that all blood, blood products, and body fluids may be infectious. Based on this assumption, all workers must utilize good work practices and engineering controls, as well as protective equipment, to minimize or eliminate exposure to bloodborne pathogens. Following universal precautions and good work practice requires that all procedures in the subsequent section of this document be strictly adhered to.

WORK PRACTICES AND ENGINEERING CONTROLS USED WITH BLOODBORNE PATHOGENS/OPIM

1. Handwashing

All personnel must wash their hands with non-abrasive hand before and after handling blood, blood products, or other potentially infectious material, and immediately upon any contact with these materials. When handwashing is not feasible, personnel must use an appropriate antiseptic hand cleanser in conjunction with clean cloth or paper towels, or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

2. Restricted Access

- a. Access to a laboratory is restricted to authorized personnel by the laboratory supervisor when work with blood or other potentially infectious materials is in progress.
- b. Individuals with reduced immunity who are at increased risk of acquiring infection, or for whom infection may be unusually hazardous (e.g., very young children, patients recovering from surgery), shall not be allowed in the laboratory without prior consultation with a licensed healthcare professional.
- c. When work with blood, blood products or other potentially infectious materials is being performed, non-laboratory personnel, such as maintenance workers, porters, administrative staff, and personnel not affiliated with the university, are to be discouraged from entering. If it becomes necessary for them to enter a facility, the hazards of the work being performed must be fully explained.
- d. Any maintenance and building services personnel visiting the lab may be unfamiliar with the potential hazards present in a laboratory. They must be fully instructed and carefully supervised by the laboratory supervisor when working in areas where human blood, blood products, and other potentially infectious materials are handled.

3. Labeling

- a. A biohazard warning sign incorporating the universal biohazard symbol must be posted on the access door to the laboratory work area.
- b. All human tissue, body fluid, or other potentially infectious materials must be stored in a container labeled with a biohazard symbol.
- c. Refrigerators, freezers, incubators, or other pieces of equipment where potentially infectious materials are stored or handled must also be labeled with the biohazard symbol.

4. Prohibited Practices

a. [NO Eating, Drinking, Smoking or Applying Cosmetics](#)

Eating, drinking, smoking, and applying cosmetics and contacts are not permitted in the area where blood, blood products, or other potentially infectious materials are handled or stored. Never put anything (pen, pencil, pipette, etc.) into your mouth while working in these areas.

b. [NO Storage of Food or Drink](#)

Food and drink shall not be kept in refrigerators, freezers, shelves, and cabinets or on countertops or benchtops where blood or OPIM are present.

c. NO Mouth Pipetting

Mouth pipetting or suctioning of blood or OPIM is prohibited. Mechanical pipetting devices must be used.

d. NO Placing Head in Biosafety Cabinet

Placing one's head in the biosafety cabinet is prohibited.

e. NO Re-capping or Altering Needles

Used needles and other sharps are not sheared, bent, broken, recapped, or re-sheathed by hand. This extra handling increases the possibility of needlestick injuries. Used needles are not removed from disposable syringes. Contaminated sharps are placed immediately in a puncture-resistant and labeled sharps container. Filled sharps disposal containers must be taped and tightly secured. They must then be placed in the medical waste stream within 30 days and properly stored until removed for disposal.

5. Sharps Management

a. The use of syringes, needles, and other sharp instruments must be minimized whenever possible. Extreme caution must be used when handling needles and syringes to avoid accidental needle sticks or the generation of aerosols during use and disposal.

b. To minimize the hazards of injury and infection, sharps must be disposed of, with a minimum of handling, in appropriate sharps containers. Sharps containers for contaminated sharps:

i. Shall be rigid, puncture resistant, leak-proof, portable, and correctly labeled.

ii. Shall be easily accessible to personnel, and located as close as is feasible to where sharps are anticipated to be found.

iii. Contaminated sharps are to be placed into sharps containers immediately.

iv. The contents of the sharps container shall not be accessed unless properly reprocessed or decontaminated. Sharps containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of sharps injury.

v. Containers shall be replaced as necessary to prevent overfilling.

c. Sharps containers must be used for the following materials:

i. Needles and syringes with attached needles (contaminated or not), scalpel and razor

- blades (contaminated or not).
- ii. Contaminated Pasteur pipettes and broken glassware.
- d. Alternatively, these materials may be placed in a hard-sided box which is then closed and placed in a biohazard bag for disposal.

6. Minimization of Aerosol Generation

- a. All procedures must be performed carefully to minimize the creation of aerosols. Biological safety cabinets or other physical containment devices must be used whenever possible while performing operations that might result in aerosolization. Aerosol-generating procedures include, but are not limited to, the following:
 - centrifugation
 - mixing
 - pipetting
 - blending
 - homogenization
 - opening pressurized containers
 - sonication
 - vortexing
 - flow cytometry
 - needle/syringe manipulations
- b. Biosafety cabinets shall be used whenever feasible to handle specimens of blood or other potentially infectious materials.
- c. If a biological safety cabinet cannot be used, then other recommended means of minimizing exposure to aerosols shall be used. These methods include, but are not limited to, the utilization of closed containers such as centrifuge tubes, sealed centrifuge rotors, and capped test tubes.

7. Disinfection/Decontamination of Work Area

- a. Blood and other potentially infectious materials must be handled in an area that can be readily decontaminated, such as a biosafety cabinet.
- b. The work area must be disinfected before and after handling blood, OPIM or pathogenic microorganisms. All equipment used to contain, inoculate, or transfer hazardous organisms (syringes, media, plates, etc.) must be decontaminated.
- c. Non-laboratory personnel should not handle equipment until it has been decontaminated.
- d. All disinfectants must be Hepatitis B virucidal and prepared at an effective concentration for use with the appropriate contact time (1:10 solution of bleach and water for 20 minutes).

8. Regulated Medical Waste Disposal

- a. Medical waste must be placed in containers which are constructed to contain all contents and prevent leakage of fluids during handling, storage, transport and shipping.
- b. All containers must be labeled with the contents and a biohazard symbol.
- c. Prior to removal from the area of use, waste containers must be closed to prevent spillage or protrusion.
- d. If a secondary container is used to prevent spillage, it must also be closeable, labeled and closed prior to removal.
- e. Containers used for the containment and/or transport of medical waste must be leak resistant, have tight fitting covers, and kept clean and in good repair. The container must be labeled with the words “Biohazard Waste”, or with the international biohazard symbol and the word “Biohazard” on the lid and sides so as to be visible from all sides.
- f. All liquid waste (cultures, stocks, and other regulated liquid waste) shall be decontaminated by a 10% solution of household bleach (final concentration) for 15—30 minute minimum contact time prior to disposal down the sink with copious amounts of running water. If an EPA-approved disinfectant other than bleach is used, EH&S will be contacted to request a waste pickup.
- g. Review the [EH&S biohazardous waste fact sheet](#) for more information

9. Spill Cleanups

- a. All spills must be cleaned up immediately and disinfected with an appropriate disinfectant, such as a 1:10 solution of bleach and water. Tools and materials used for cleaning spills must be decontaminated by appropriate decontamination procedures, as determined by the laboratory supervisor.
- b. Broken glassware which may potentially be contaminated shall be picked up using tongs, forceps, broom and dust pan, or other such device. At no time will employees pick up potentially contaminated broken glass with their bare hands. Protective clothing shall be worn during the cleanup, such as goggles, a face mask, gloves and a lab coat.
- c. The laboratory supervisor or other laboratory personnel must report laboratory accidents (major spills, injuries, illnesses) to EH&S within eight working hours.

10. Transportation

- a. Specimens of blood or other potentially infectious materials must be placed in a primary container which prevents leakage (capped test tube, centrifuge tube, jar) during collection, handling, storage, transport, or shipping.
- b. If the specimens are transported through hallways, the primary containers must be placed in a labeled, easily decontaminated secondary container with a tight fitting lid which would contain the contents if the primary container were to leak or break. Examples of appropriate

secondary containers include sealable plastic food storage containers, coolers, or larger falcon tubes.

11. Shipping of Samples

- a. Specimens of blood or other potentially infectious materials which will be shipped to or from UC Berkeley must be clearly identified as human blood or blood products.
- b. Prior to shipment, the material must be placed in a closed primary container and a labeled, leak-proof secondary container. Contact EH&S at (510) 642-3073 for more detailed guidelines on shipping samples

12. Blood Collection

All human blood collection within UC Berkeley must be performed in accordance with established phlebotomy procedures and with appropriate personal protective equipment (PPE). Appropriate approvals from all applicable institutional organizations must be obtained prior to initiation of work e.g., Committee for Laboratory and Environmental Biosafety (CLEB) and the institutional review board (IRB).

PERSONAL PROTECTIVE EQUIPMENT

1. Protective eyewear

Protective eyewear, including safety glasses or goggles, is required during laboratory operations that have the potential for generating splashes or aerosol droplets. Face shields may be substituted when appropriate.

2. Lab coats and uniforms

Liquid-impervious laboratory coats, gowns, smocks, or uniforms must be worn while manipulating specimens that include BBP or OPIM. Long pants and closed-toed shoes are required at all times when in the laboratory. Before leaving the laboratory for non-laboratory areas such as a cafeteria, library, or administrative offices, this protective clothing must be removed and left in the laboratory.

3. Gloves

- a. Gloves must be worn by all personnel engaged in activities that may involve skin contact with potentially infectious fluids or tissues.
- b. Gloves are required for laboratory workers with dermatitis or other lesions on the hands

who may have direct or indirect contact with potentially infectious materials.

- c. Handwashing with non-abrasive hand soap and water must be a routine practice immediately after direct contact with potentially infectious materials and on completion of work, even when gloves are worn.
 - d. Gloves should be removed before touching common equipment (phone, computer, fax machines) to prevent contamination.
 - e. Glove selection shall be appropriate for the materials handled.
- 4. Shoe covers and head covers may be required as a condition of entry to areas involving potential exposure to blood or body fluids (e.g., Northwest Animal Facility).**

MEDICAL CONSIDERATIONS

HEPATITIS B VACCINATIONS

HBV vaccinations will be made available at no cost to all employees and students who are occupationally exposed to blood, blood products or OPIM.

Each identified individual will receive information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, and the benefits of being vaccinated. The following provisions apply:

- a. HBV vaccinations must be made available to all employees within 10 working days of initial assignment unless the employee has previously received vaccination, antibody testing has shown the employee to be immune, or unless contraindicated for medical reasons.
- b. Workers who initially decline the HBV vaccination must sign a [declination form](#) to do so. Supervisors are required to keep all declination forms signed by their employees. If any worker, at a later date, decides to accept the HBV vaccination, it will be provided to the worker at no cost.
- c. University Health Services will coordinate and schedule all HBV vaccinations to be given to employees and students at the Tang Center.
- d. If a routine booster dose for HBV is recommended by the U.S. Public Health Service at a future date, such booster will be made available to at-risk employees and students.
- e. University Health Services will maintain records of all those on the Hepatitis B vaccination program.

POST-EXPOSURE EVALUATION AND FOLLOWUP

The exposure incident must be reported to the supervisor, department administrator or department safety coordinator before the end of the work day on which the exposure occurred. EH&S must be notified immediately by the employee or department.

The university shall make a confidential medical evaluation and follow-up available to the employee.

In case of life threatening conditions, call 911 from any campus landline or (510) 642-3333 from any cell phone. To seek medical attention for non-life threatening incidents, go to either of the two following treatment centers:

University Health Services Tang Center
2222 Bancroft Way
(510) 642-6891 or (510) 642-3188
Monday- Friday, 8 am—5 pm

Alta Bates Emergency Department
2450 Ashby Ave (@ Colby Street)
(510) 204-4444
After normal business hours

A full HBV vaccination series and/or immunoglobulin will be made available within 24 hours to those first aid providers that have not received the pre-exposure series.

Documentation will be made of the routes of exposure and the circumstances under which the exposure incident occurred.

Identification of the source individual must be made, if possible. The source individual's blood must be tested if consent can be obtained. Source testing is not needed if it is already known the individual is infected with HBV or HIV. Results of the test must be made available to the exposed employee.

The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained. The employee may elect, during that time, for testing to be done. Additional testing and collection will be made available as recommended by the US Public Health Service.

INFORMATION REVIEWED BY THE HEALTHCARE PROFESSIONAL

The following information shall be reviewed by the attending physician or health care professional:

1. A copy of the standard (CCR Title 8, 5193) as necessary.
2. Description of affected employee's job duties and history regarding the occupational exposure (completed Exposure Incident Report).
3. Documentation of the route of exposure and circumstances under which exposure occurred.

4. Results of the source individual's blood testing, if available.
5. All medical records relevant to the appropriate treatment of the employee, including vaccination status.

HEALTHCARE PROFESSIONAL WRITTEN OPINION

The attending physician shall provide the university with the following information in writing within 15 days from completion of the evaluation:

1. An opinion whether or not a vaccination for Hepatitis B is indicated and the series has been initiated.
2. Confirmation that the employee has been informed of the results of the evaluation.
3. Confirmation that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.
4. All other diagnoses and medical information are confidential.

HAZARD COMMUNICATION

LABELS AND SIGNS

Cal/OSHA requires communication to employees who may come in contact with bloodborne pathogens. This is accomplished using safety data sheets, labels, warning signs, and employee training.

1. Warning Signs

- a. Warning signs will be posted on the doors outside of the labs where blood and other potentially infectious materials are used.
- b. All signs will include the following information:
 - ii. The international symbol for biohazard.
 - iii. The name of the specific biohazardous materials used in the location.
 - iv. Special requirements for personal protective equipment (PPE) and other laboratory procedures.
 - v. The name and telephone number of the principle investigator, lab supervisor, or other responsible person.

2. Warning Labels

- a. The label shall be fluorescent orange or orange-red with lettering or symbols in a contrasting color. Warning labels shall include the universal biohazard symbol.
- b. These labels will be affixed to a container or equipment in a manner as to prevent their removal.

TRAINING AND INFORMATION

Initial Bloodborne Pathogen training is available online and is required at the time of initial assignment to tasks where occupational exposure to blood and other potentially infectious materials may occur.

[EHS 202: Bloodborne Pathogens \(BBP\) Online Training](#)

Training must be repeated every 12 months (annually) thereafter.

RECORD KEEPING

MEDICAL RECORDS

All medical records shall be confidential and will not be disclosed to any person except where regulation requires. Each record will be maintained for a period of at least the duration of employment plus 30 years and will include the following information:

1. The employee's full name and social security number.
2. A copy of the HBV vaccination record or declination form.
3. A written record of all medical evaluations, results, recommendations, and follow-ups.
4. The attending physician's written evaluation.
5. Copies of all other information provided by the healthcare professional.

TRAINING RECORDS

Training records shall be prepared and maintained by EH&S or the safety coordinator of the department conducting the training. Training records shall be maintained for a period of three years. These records shall include the following information:

1. The dates of the training session.
2. The contents, outline and summary of training information.
3. The names and qualifications of the person or persons conducting the training.

4. The names and job titles of all attendees.

SHARPS INJURY REPORTING AND LOG

All sharps related injuries shall be reported immediately by contacting EH&S at (510) 642-3073 (off-hours (510) 642-3333). An [Employer's Report of Incident](#) form shall be completed and faxed to UC Berkeley Disability Management Services at (510) 642-6505. Worker's Compensation will notify EH&S regarding who will initiate a review of the injury and enter the information into a sharps injury log. The sharps injury log is maintained for five years by the EH&S biosafety program staff.

RECORDS AVAILABILITY

Medical, training, and sharps injury reporting records will be made available as required by CCR Title 8 Section 5193.

TRANSFER OF RECORDS

UC Berkeley shall comply with the requirements for transfer of records in accordance with CCR Title 8 Section 3204.

NON-EMPLOYEE AND CONTRACT SERVICES

Companies contracting services which involve exposure of their employees to bloodborne pathogens must have their own exposure control plan with job-specific guidelines for work at UC Berkeley. They must also provide their own BBP training in accordance with CCR Title 8 Section 5193. The contractor must provide a written exposure control plan and a copy of the Injury and Illness Prevention Program (IIPP) plan to EH&S prior to start of work.

RESEARCH INVOLVING HBV AND HIV

If a faculty, staff, or student wishes to conduct research with HBV and HIV, they must contact the Office of Environment, Health and Safety (EH&S) prior to the initiation of the experiment.



ANNUAL PROGRAM REVIEW

The Office of Environment Health and Safety shall be responsible for annual review of the UC Berkeley Exposure Control Plan in order to evaluate its effectiveness. EH&S shall recommend and implement changes to the program as needed after consulting with users and reviewing incidents which have occurred in the past year.

APPENDIX A: EXPOSURE DETERMINATION CRITERIA

The criteria described below are provided courtesy of the Centers for Disease Control and Prevention:

Criteria for Determining the Risk of Occupational Exposure to Hepatitis B Virus or other Bloodborne Pathogens

Does the employee ever:

- a) work with animals, such as primates, that are infected with Hepatitis B or other bloodborne pathogens OR perform tasks where such animals are housed?
- b) work with Hepatitis B virus or other bloodborne pathogens or with preparations, such as liquid solutions or powders containing the Hepatitis B virus?
- c) handle human blood products such as whole blood, plasma, serum, platelets, or white cells?
- d) handle human body fluids such as semen, cerebrospinal fluid, vaginal secretions, joint fluid, pleural fluid, peritoneal fluid, pericardial fluid, or amniotic fluid?
- e) handle unfixed human tissue or organs? (Tissues and organs soaked in chemical preservatives such as alcohol or formaldehyde are “fixed”)
- f) handle blood, blood products, body fluids or unfixed tissues or organs of animals infected with the Hepatitis B Virus or other bloodborne pathogens?
- g) handle sharp instruments such as knives, needles, scalpels, or scissors, which have been used by others working with human blood, or other potentially infectious materials to include unfixed human organs, tissues or body fluids OR used by others working with similar body parts and fluids from animals infected with the Hepatitis B Virus or other bloodborne pathogens?
- h) enter areas where other individuals work with human or animal blood, body fluid, tissues or organs which are infected with the Hepatitis B Virus or other bloodborne pathogens AND perform tasks where any of the aforementioned body substances may come into contact with the laboratory worker’s unbroken skin, broken skin, or mucous membranes?
- i) perform tasks which may potentially result in the lab workers exposed skin or mucous membranes coming in contact with human or animal blood, body fluids, organs, or tissues which are infected with the Hepatitis B Virus or other bloodborne pathogens?
- j) handle lentiviral vectors (HIV-1), human cell lines known to harbor and propagate HIV or human cells likely to support the replication of HIV and which have not been tested or verified to be free of HIV?
- k) respond to medical emergencies as part of assigned tasks

IF THE ANSWER TO ANY OF THE ABOVE QUESTIONS IS “YES”, THEN THE LAB WORKER IS CONSIDERED TO BE AT OCCUPATIONAL RISK OF CONTRACTING HBV OR OTHER BLOODBORNE PATHOGENS

APPENDIX B: EXPOSURE CONTROL PLAN JOB CLASSIFICATION

Employee Job Classification List for Exposure Determination

Exposure determination is based upon an employee's reasonable potential for exposure to blood or any other infectious materials that they may contact during their job duties. Exposure determination shall be made without regard to the use of personal protective equipment (employees are considered to be exposed even if they wear personal protective equipment). OSHA requires exposure evaluations based on the potential for job-related tasks leading to exposure. The university program is designed to cover those who are at a higher risk of exposure by establishing high, moderate, or low risk categories. All other employees will be evaluated and determined on an individual basis by the Director of the Student Health Center and EH&S. The three categories and job classifications are as follows:

Category 1 - High Risk

Procedures or jobs that involve inherent potential for contact with blood, body fluids, tissues, mucous membranes, or skin contact that could possibly transmit the HBV, HIV or other bloodborne pathogen.

Job Classifications

- Physician
- Radiological Technologist
- Registered Nurse
- Nurse Practitioner
- Clinical Laboratory Tech
- Clinical Aids
- Research and Laboratory Personnel working with Human and Non-human Primate Materials

Category 2 - Moderate Risk

This category has been established for those employees who do not work in situations that routinely (day to day) involve contact with infectious materials. There is, however, a potential for exposure to these mediums.

Job Classifications

- Custodians (assigned to Health Center)
- University Police Officers & Investigators
- Athletic Trainers (Students & Coaches)
- EH&S Personnel
- Research and Instructional Safety Personnel
- Plumbers
- Building Service Engineers
- First Aid and CPR Responders

Category 3 - Minimal Risk

This category involves no exposure to blood, body fluids or tissues such as are described in Category 1. Exposure is possible under certain circumstance.

Job Classification

- Housing Personnel
- All Other Custodians

APPENDIX C: DEFINITIONS

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

decontamination: the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

engineering controls: controls that isolate or remove a hazard from the workplace. In the case of bloodborne pathogens, this includes sharps disposal containers, needleless systems and sharps with engineered sharps injury protection.

exposure incident: eye, mouth, mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials.

exposure control plan: a written plan that includes methods of implementation and procedures to reduce occupational exposure.

exposure determination: identification of job classifications, tasks and procedures where occupational exposure occurs.

HBV: Hepatitis B Virus causes chronic liver disease and strikes 200,000 persons in the US each year. There is no cure. Prevention is the only way to control this disease.

HBV vaccinations: A vaccination program consisting of three inoculations over a six month period.

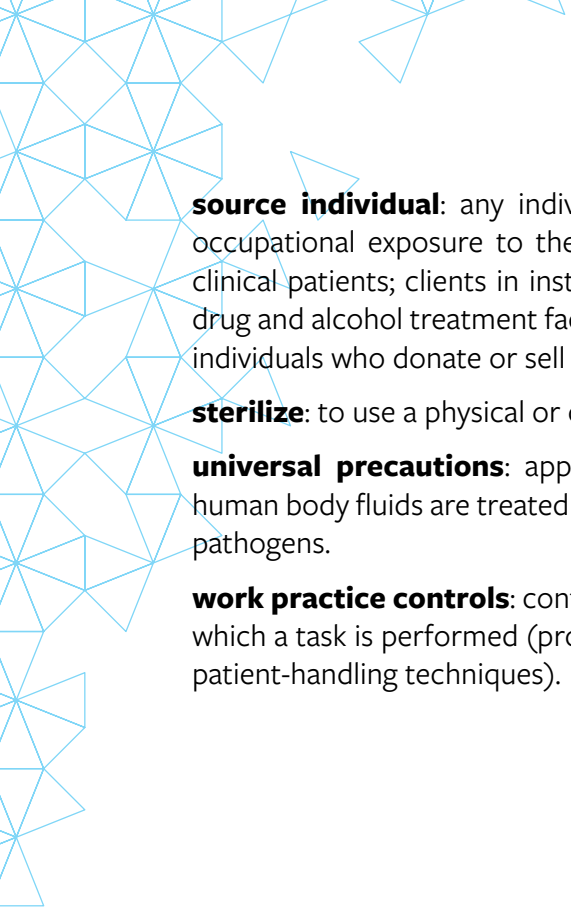
HIV: human immunodeficiency virus; the virus which can eventually cause acquired immune deficiency syndrome (AIDS).

other potentially infectious materials (OPIM): substances other than blood or blood products which may transmit infection; semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any other body fluid that is visibly contaminated with blood such as saliva or vomitus, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids such as emergency response.

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.

parenteral contact: piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions; or, taken into the body or administered in a manner other than through the digestive tract, as by intravenous or intramuscular injection.

personal protective equipment (PPE): specialized clothing or equipment worn or used by an employee for protection against a hazard. General work clothes that are not intended to function as protection against a hazard such as uniforms, pants, shirts or blouses are not considered to be personal protective equipment.



source individual: any individual, living or dead, whose blood or OPIM may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinical patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

sterilize: to use a physical or chemical procedure to destroy all microbial or viral life.

universal precautions: approach to infection control whereby all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, HCV, and other bloodborne pathogens.

work practice controls: controls that reduce the likelihood of exposure by defining the manner in which a task is performed (prohibiting recapping of needles by a two-handed technique and use of patient-handling techniques).

LABORATORY SPECIFIC EXPOSURE CONTROL PLAN

PI: _____

Department: _____

Rooms: _____

Materials Used:

EXPOSURE DETERMINATION

(Refer to Appendix A of UC Berkeley Exposure Control Plan)

Describe Tasks That Involve Exposure

JOB CLASSIFICATIONS IN WHICH ALL EMPLOYEES HAVE EXPOSURE (SEE APPENDIX B)

Job Classification Title

JOB CLASSIFICATIONS IN WHICH SOME EMPLOYEES HAVE EXPOSURE

Job Classification Title Tasks/Procedures In These Jobs That Have Occupational Exposure

METHODS OF COMPLIANCE**Engineering Controls**

biosafety cabinets

sealed centrifuge rotors

safety cups

sealed centrifuge vials

sharps containers

benchtop splash shields

coved floors

local ventilation

hand washing sink

mechanical pipetting devices

other (please describe)

Personal Protective Equipment

laboratory coats

disposable gowns

disposable gloves

utility gloves

safety glasses

goggles

face shields

mask

disposable N95 respirator

PAPR

other (please describe)

Work Practice Controls

hand washing

restricted access

labeling

no food, drink, or application of cosmetics

minimization of aerosol generation

disinfection of work area

spill clean-up with appropriate disinfectants

no mouth pipetting

other (please describe)

MEDICAL CONSIDERATIONS

Refer to pages 14—16 of the campus Exposure Control Plan for more information. Check all boxes that apply.

All at-risk employees have been offered the Hepatitis B Vaccination

During normal work hours, all injured employees will be provided immediate first aid then report to the Tang Center, University Health Services, Emergency Room

After hours, injured employees will report to Alta Bates Emergency Room, 2450 Ashby, Berkeley, CA.

VERIFICATION STATEMENT

I have read and understand the requirements of the UC Berkeley Bloodborne Pathogen Exposure Control Plan. The information I have provided in this form is accurate and verifiable during audits of this work area.

Signature of Principal Investigator or Supervisor

Date

Berkeley EH&S

Office of Environment, Health & Safety
ehs.berkeley.edu

317 University Hall
Berkeley, CA 94720-1150
(510) 642-3073

Hepatitis B Vaccination Declination

I understand that, due to my occupational exposure to blood or other potentially infectious material (OPIM), I may be at risk of acquiring hepatitis B virus (HBV) infection.

I have been given the opportunity by UC Berkeley to be vaccinated with hepatitis B vaccine at no charge to me.

I choose to decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B. I understand that infection with HBV can cause scarring of the liver, liver cancer, and even death.

If in the future I continue to have occupational exposure to blood or OPIM and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

employee name

employee signature

employee email address

campus telephone number

supervisor name (print)

campus department

Once completed, this form must be retained in the employee's personnel file.