



KECK GRADUATE INSTITUTE  
*of Applied Life Sciences*

# Exposure Control Plan

**Building # Room #  
name**

**DATE**

Developed in accordance with the Cal OSHA Bloodborne Pathogens Standard,  
<http://www.dir.ca.gov/title8/5193.html>

**PURPOSE:**

The purpose of this exposure control plan is to eliminate or minimize employee occupational exposure to human blood or other potentially infectious material (OPIM).

**SCOPE:**

This Standard applies to all KGI personnel who, during the course of their employment, may come into contact with human blood or potentially infectious bodily materials. The Exposure Control Plan demonstrates compliance with the California OSHA Bloodborne Pathogen Standard (8CCR Sec. 5193). The plan will remain on file in a central location within the laboratory/work place along with other relevant safety documents for all personnel to access.

**RESPONSIBILITY:**

Principal Investigators (PI) and Laboratory supervisors shall be responsible for ensuring their employees comply with the provisions of this plan. Each PI is responsible for providing all necessary supplies such as personal protective equipment, soap, bleach, Hepatitis B vaccinations, etc. Hepatitis B vaccinations shall be administered through KGI Human Resources and Pomona Valley Medical Center.

**Information and Training:** Worksite specific training is conducted by the PI or lab manager, and general Bloodborne Pathogen training awareness training is provided by KGI Laboratory Safety . Bloodborne Pathogens Standard and specific safety training for each person's duties is the responsibility of the PI. Training must be conducted within ten days of starting work with human specimens, and annually thereafter. Training must be documented. To receive training on the Bloodborne Pathogens Standard or this Exposure Control Plan, see Name. Records of training will be kept by the Laboratory Safety Chair. The ECP will be revived annually by the Chemical and Biological Laboratory Safety Committee.

**EXPOSURE DETERMINATION:** The PI will identify positions and procedures in the laboratory which present the possibility of occupational exposure to human blood or other potentially infectious materials.

**The materials** used in this laboratory which may cause exposure to human bloodborne pathogens include the following: **(Mark all that apply.)**

\_\_\_\_\_ Human blood, serum, plasma, blood products, components, or cells

\_\_\_\_\_ 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 visibly contaminated with blood, all body fluids where it is difficult to differentiate between fluids

\_\_\_\_\_ Any unfixed human tissue or organ

\_\_\_\_\_ Cell, tissue or organ cultures containing HIV; culture medium or other solutions containing HIV or HBV; blood, organs or other tissues from experimental animals infected with HIV or HBV

**The job classifications** in which **all or some** employees may have occupational exposure to human bloodborne pathogens include the following: **(Check applicable groups and list the names of persons potentially at risk.)**

Check if Applicable	Title	Name of Person with Occupational Exposure
	Professor(s)	
	Postdoctoral Researcher(s)	
	Staff Research Associate(s)	
	Laboratory Assistant(s)	
	Graduate Student(s)	
	Undergraduate Student(s)	
	Others	

**The tasks and procedures** used in this laboratory which may pose risk of exposure to human bloodborne pathogens include the following:

**(Mark all that apply.)**

- Phlebotomy or venipuncture of humans (including co-worker or student)
- Injections (into humans or into animals using human specimens)
- Other use of needles with human specimens
- Preparing, dissecting, cutting, or otherwise handling human tissue
- Pipetting, mixing, or vortexing human blood, fluid or tissue
- Centrifuging human blood, fluid or tissue
- Handling tubes or other containers of human blood, fluid or tissue
- Handling contaminated sharps or other contaminated waste
- Cleaning up spills of human blood or other body fluids
- Preparing or handling primary human cell cultures
- Other

## **METHODS OF COMPLIANCE:**

**A Written Exposure Control Plan:** This Exposure Control Plan will be available to all affected employees at Pomona Valley Medical center. It will be reviewed and revised annually by Name, or whenever any significant changes in procedure or personnel occur.

The Biohazard symbol and orange-red warning labels that display the word "Biohazard" are used to identify containers of regulated waste, refrigerators/freezers containing blood or OPIM, and other containers used to store, transport, or ship blood/OPIM. Contaminated equipment is also labeled with the biohazard warning label. The label documents the portions of the equipment that remain contaminated

## **ENGINEERING AND WORK PRACTICE CONTROLS:**

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Engineering and work practice controls are evaluated and maintained on a regular schedule to ensure their effectiveness. Use of sharps with infectious agents must be minimized.

Universal precautions is defined as an approach to infection control where all human/non human primate blood and other human/non human primate body fluids, tissues, and cells are treated as if they were infectious for human immunodeficiency virus, hepatitis B virus, hepatitis C virus, and other bloodborne pathogens .

1. Employees must wash their hands or other skin with soap and water, or flush mucous membranes with water, as soon as possible following an exposure incident (such as a splash of blood to the eyes or an accidental needle stick). \*\*
2. Employees must wash their hands immediately (or as soon as feasible) after removal of gloves or other personal protective equipment.\*\*

\*\*Employees shall familiarize themselves with the nearest hand washing facilities for the buildings in which they work.

3. Breaking or shearing of needles is prohibited.
4. No eating, drinking, using cell phones, smoking, applying cosmetics or lip balm, or handling contact lenses is allowed in a work area where there is a reasonable likelihood of occupational exposure.
6. No food or drinks shall be kept in refrigerators, freezers, cabinets, shelves, or on counter tops or bench tops where blood or other potentially infectious materials are present.
7. Employees must perform all procedures involving blood or other potentially infectious materials in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

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## **HOUSEKEEPING:**

Decontamination should be performed at the end of the work shift AND after any spill or blood or OPIM.

Decontamination will be accomplished by utilizing the following materials:

- a. 10% (minimum) solution of chlorine bleach
  - b. EPA-registered disinfectants
- All contaminated work surfaces, tools, objects, etc. will be decontaminated immediately or as soon as feasible after any spill of blood or other potentially infectious materials. The bleach solution or disinfectant must be left in contact with contaminated work surfaces, tools, objects, or potentially infectious materials for at least 15 minutes before cleaning.
  - Equipment that may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before servicing or use.
  - Broken glassware will not be picked up directly with the hands. Sweep or brush material into a dustpan.
  - Known or suspected contaminated sharps shall be discarded immediately or as soon as feasible in containers that is closable, puncture-resistant, leak-proof on sides and bottom, and marked with an appropriate biohazard label.
  - When containers of contaminated sharps are being moved from the area of use or discovery, the containers shall be closed immediately before removal or replacement to prevent spillage or protrusion of contents during handling, storage, or transport.
  - Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of percutaneous injury.

## **Sharps containers for contaminated sharps:**

- All sharps containers for contaminated sharps shall be rigid, puncture resistant, leakproof, portable, and correctly labeled.
- Containers for sharps shall be easily accessible to personnel and located as close as is feasible to where sharps are anticipated to be found.
- Contaminated sharps are to be placed into sharps containers immediately.
- 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.
- Containers shall be replaced as necessary to prevent overfilling.

## **REGULATED WASTE:**

**Biological Waste Disposal:** Non-sharp medical waste must be placed in a red biohazard bag with the International biohazard symbol. Biomedical waste in red biohazard bags must be placed in a leak proof secondary container with a closeable lid. After autoclaving red bags are placed into black trash bags before disposing into trash.

**Other regulated waste:** shall be placed in containers that are closable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation or shipping.

The waste must be labeled and closed before removal to prevent spillage or protrusion of contents during handling, storage, or transport.

Biohazard bags and labels are available through a safety or biological supply vendor such as VWR or Fisher Scientific

**LAUNDRY PROCEDURES:**

Each BSL2 lab member should have two biological resistant lab coats. Please talk with the PI to make sure you have a supply ordered before beginning work. Coats are to be stored inside the BSL2 lab. Change out the coats each Tuesday, or when lab coats become contaminated with blood or other potentially infectious material. Contaminated lab coats will be handled as little as possible. KGI has coordinated the cleaning of contaminated laundry through an outside vendor. Place soiled lab coats in a black trash bag and leave just inside the door (each Tuesday afternoon) of the BSL2 lab. KGI safety personnel will place them in the laundry pickup at the end of the day

**PERSONAL PROTECTIVE EQUIPMENT:**

Where occupational exposure remains after institution of engineering and work controls, personal protective equipment shall also be utilized.

Each laboratory PI will provide gloves, face shields, masks, eye protection, and aprons and will replace or repair personal protective equipment as necessary, all at no cost to their employees. Minimum PPE is expected to be worn: Biosafety resistant lab coat, gloves and safety glasses must be worn at all times. Occasionally a face shield may be used.

All personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employee's clothing, skin, eyes, mouth, or mucous membranes under normal conditions of use and for the duration of time for which the protective equipment will be used.

Employees must:

- Utilize protective equipment in occupational exposure situations.
- Remove garments that become penetrated by blood or other potentially infectious material immediately or as soon as feasible.
- Replace all garments that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens.
- Remove all personal protective equipment before leaving the work area.
- Place all garments in the appropriate designated area or container for storage, cleaning, decontamination, or disposal.
- All sharps related injuries shall be reported immediately to 7-0160. The injury and post accident investigation report along with the Sharps Injury Log is maintained for five years by lab manager.

**Recordkeeping:** Lab PI or manager must maintain all training records as discussed above for at least three years and provide recordkeeping and documentation that they advised staff of the offer of the Hepatitis B vaccination. The medical provider maintains all medical records related to the provision of clinical services for thirty years. To access these records call the provider directly (909) 865-9977 or, Cynthia Ferrini at 7-7853.

### **Communication of Hazards to Employees**

During the past 12 months, all new employees with occupational exposure in this work area have received training on the Standard and the campus ECP. They have also received on-the-job training for safe work practices and the types of biohazards in their work environment. The training has been documented and is on file in department records (for a minimum of 3 years). All employees with longer employment service have received an annual training update on the Standard and the campus ECP. The training has been documented and is on file in safety records.

**HIV, HBV, and HCV Research Laboratories:** The Cal/OSHA Bloodborne Pathogen Standard defines HIV, HBV, and HCV laboratories as those engaged in the culture, production, concentration, experimentation, and manipulation of HIV, HBV, or HCV. HIV, Hepatitis B or Hepatitis C research is not currently performed at this institute; however in the event that Hepatitis B or C is initiated this section will be updated.

### **HEPATITIS B VACCINE PROGRAM:**

Principal Investigators/ Non Laboratory Supervisors are responsible for ensuring that all employees with potential occupational exposure to human bloodborne pathogens are offered the HBV vaccine (at no charge to them). This vaccine is an effective preventive measure against Hepatitis B infection. Supervisors (or their designate) must inform all new employees of the vaccination program as specified in the Bloodborne Pathogen Program Policy ***within 10 working days*** of their employment start date. If an employee declines to be vaccinated, the Supervisor must ensure that the employee signs the HBV Vaccination Declination Statement and that a copy is on file in the department.

- All employees in this work area have been informed of the HBV vaccination program *within 10 working days of their employment start date*. They have been offered the vaccine at no charge and have been instructed on how to receive the vaccination.
- For all current employees who have received the vaccine, medical confirmation is on file with the Human Resources designated health care provider or their personal physician.
- For all current employees who have declined the vaccine, a HBV Vaccination Declination Statement is on file with Environmental Health & Safety.

### **POST-EXPOSURE EVALUATION AND FOLLOW-UP:**

All exposure incidents including spills, needle sticks, ingestion, resulting in direct, unprotected contact with blood or other potentially infectious material gives you the right to prompt medical evaluation and treatment with a qualified physician familiar with evaluations and treatment protocols as recommended by the Center for Disease Control and Prevention. These services shall be provided to you at no cost.

After any direct exposure to BBPs through needle stick, immediately wash the affected area with soap and water and notify your supervisor. For splashes with BBP, rinse the affected area for 15 minutes and notify your supervisor.

Directions on reporting an incident should include how to report it, when to report it, and information on the process to be seen at Pomona Valley Medical Center should be documented.

**Following a report of an exposure incident, the exposed employee shall go to the Pomona Valley Medical Center for a confidential medical evaluation and follow-up, including at least the following elements:**

1. Documentation of the route(s) of exposure.
2. A description of the circumstances under which the exposure occurred.
3. The identification and documentation of the source individual. (The identification is not required if the employer can establish that identification is impossible or prohibited by state or local law.)
4. The collection and testing of the source individual's blood for HBV and HIV serological status.
5. Post-exposure treatment for the employee, when medically indicated in accordance with the U.S. Public Health Service.
6. Counseling.
7. Evaluation of any reported illness.

**The Healthcare professional evaluating an employee will be provided with the following information:**

1. A copy of this plan.
2. A copy of the OSHA Bloodborne Pathogen regulations)
3. Documentation of the route(s) of exposure.
4. A description of the circumstances under which the exposure occurred.
5. Results of the source individual's blood testing, if available.
6. All medical records applicable to treatment of the employee, including vaccination status.

**The employee will receive a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.**

The healthcare professional's written opinion for Hepatitis B vaccination is limited to the following: (1) whether the employee needs Hepatitis B vaccination; (2) whether the employee has received such a vaccination. The healthcare professional's written opinion for post-exposure evaluation and follow-up is limited to the following information:

- a. That the employee was informed of the results of the evaluation.
- b. That the employee was informed about any medical conditions resulting from exposure to blood or other infectious materials that require further evaluation or treatment.
- c. All other findings or diagnoses will remain confidential and will not be in a written report.



- d. All medical evaluations shall be made by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional. All laboratory tests must be conducted by an accredited laboratory at no cost to the employee. All medical records will be kept in accordance with Title 8 5193

**TRAINING:**

All high-risk employees shall participate in a training program. Training will occur before assignment to a task where occupational exposure may take place and at least annually thereafter. Additional training will be provided when changes such as modification of tasks or procedures affect the employee's occupational exposure.

Any employee who is exposed to infectious materials shall receive training, even if the employee was allowed to receive the HBV vaccine after exposure.

The training program will include at least the following elements:

1. An accessible copy of the regulatory text of 29 CFR 1910.1030 and an explanation of its contents.
2. A general explanation of the epidemiology and symptoms of bloodborne diseases.
3. An explanation of the modes of transmission of bloodborne pathogens.
4. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan.
5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.
6. An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment.
7. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
8. An explanation of the basis for selection of personal protective equipment.

**Verification Statement**

I have read and understood the requirements of the KGI Bloodborne Pathogen Program and the Exposure Control Plan. The information I have provided in this form is accurate and verifiable during audits of this work area and corresponding department records. A copy of this signed, completed form is on file with lab records maintained by the manager or PI.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**KGI HEPATITIS B VACCINE VACCINATION  
OR DECLINATION CONFIRMATION FORM**

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Home Phone #: \_\_\_\_\_ Work Phone #: \_\_\_\_\_

Job Title: \_\_\_\_\_ Supervisor: \_\_\_\_\_

**PLEASE CONSENT TO OPTION 1, 2 OR 3 ONLY**

**Option 1 Consent to be vaccinated or receive titer to confirm immunity**

- I have read the information sheet about hepatitis B and the hepatitis B vaccine.
- I have had an opportunity to ask questions and understand the benefits and risks of hepatitis B vaccination.
- I understand that I must have three doses of vaccine to confer immunity. However, as with all medical treatment, there is no guarantee that I will become immune or that I will not experience an adverse side effect from the vaccine. I request that it be given to me.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Option 2 History of Vaccination / Immunity**

- I have received the hepatitis B vaccine. Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Option 3 Declination to be vaccinated**

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine at no charge. I decline the hepatitis B vaccine, at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge.

Please check one of the following:

- I am declining the vaccination.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_