

**Bloodborne Pathogen Exposure Control Plan**  
**California State University Bakersfield**  
**Rev: 8/99**

**INTRODUCTION**

This plan provides procedures that will reduce the potential for occupational exposures to bloodborne infectious disease according to the requirements of 29 CFR 1910.1030 and 8 CCR 5193. It applies to all employees who may be exposed to human blood, blood components, body fluids or other potentially infectious materials (OPIM) as a result of the performance of their duties. Bloodborne pathogens include, but are not limited to hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV). A “sharp” includes any object that can be reasonably anticipated to penetrate the skin and result in an exposure to bloodborne pathogens. Sharps used at CSUB include, but are not limited to, needle devices, scalpels, lancets, broken glass and broken capillary tubes.

**EXPOSURE DETERMINATION**

Employees working in the following job classifications perform duties which could result in exposure to bloodborne pathogens. Specific activities that present risk of exposure are listed after each classification.

Job classifications in which all employees have occupational exposure.

1. Athletic Trainer – first aid provider
2. Clinical Laboratory Technician – collection and handling of bodily fluid specimens
3. Clinical Aide - collection and handling of bodily fluid specimens
4. Custodian – clean up of bodily fluids, handling of restroom trash, sewage cleanup
5. Licensed Vocational Nurse - medical procedures, administration of medication, first aid
6. Nurse Practitioner - medical or nursing procedures, administration of medication, first aid
7. Physician - medical procedures, administration of medication, first aid
8. Public Safety Officer, Sargent, Chief – first aid provider, interaction with violent suspects, searches
9. Registered Nurse – medical or nursing procedures, administration of medication, first aid

Job classifications in which some employees have occupational exposure.

10. Instructional Support Technician – handling of laboratory specimens and waste
11. Maintenance Worker – plumbers are exposed to sewage
12. Science Faculty – research and laboratory activities

## **HEPATITIS B VACCINATIONS**

All employees working in classifications 1-9 will be offered hepatitis B vaccinations within 10 days of employment. Employees working in classifications 10–12 will be offered hepatitis B vaccinations within 10 days of a determination by EH&S staff that their work activities present an occupational exposure to bloodborne pathogens. Student lifeguard positions include first aid training requirements, however lifeguards are not primary responders. Athletic Trainers, Public Safety Officers and Health Center medical staff are the primary responders for first aid on the CSUB campus. Hepatitis B vaccinations will be offered to lifeguards immediately following a reported exposure.

Program participants will receive the hepatitis B vaccine at no cost. Medical contradictions or an antibody titer that indicates the employee is immune are reasons for an employee to elect to decline the hepatitis B vaccination. If an employee refuses to participate in the hepatitis B vaccination program, written documentation of the declination will be retained in the employee's medical record using the required CAL OSHA declination form.

## **EXPOSURE CONTROLS**

The following practices will be implemented to reduce the potential for occupational exposure to bloodborne pathogens. Additional exposure control procedures will be developed by clinic or laboratory supervisors as needed for specialty work environments. Supervisors are responsible for ensuring that employees implement exposure control measures and are trained to use required personal protective equipment (PPE). Employees who fail to implement exposure control measures or utilize PPE as required are subject to disciplinary action.

### **Universal Precautions**

Universal precautions require that all blood and body fluids be treated as if they are infected with HBV, HCV, HIV or other pathogens. If the nature of the task requires direct contact with potentially infectious materials, PPE shall be available and worn. If an activity is performed without blood exposure, but exposure could occur in an emergency, the PPE shall be available. Universal precautions are intended to supplement, rather than replace, work practice controls.

### **Engineering Controls**

An appropriate safety hood will be used, when applicable, based on the specific type of hazard present. Vacuum lines must be protected with liquid disinfectant traps and high efficiency particulate air (HEPA) filters that are checked annually when the biosafety hoods are certified.

Needleless systems shall be used for withdrawal of body fluids after initial venous or arterial access is established, for administration of medications or fluids and any other procedure for which a needleless system is available as an alternative to the use of needle devices.

Needles with engineered sharps injury protection shall be used for withdrawal of body fluids, accessing a vein or artery, administration of medications or fluids, and any other procedure for which a needle device with engineered sharps injury protection is available.

If sharps other than needle devices are used, these items shall include engineered sharps injury protection.

**EXCEPTIONS:** Engineering controls are not required if they are not available in the marketplace or if a licensed healthcare professional, directly involved in a patient's care, determines that the use of the engineering control will jeopardize the patient's safety or the success of a medical procedure. Engineering controls are not required if the employer can demonstrate by means of objective product evaluation criteria that the control is no more effective in preventing exposure incidents than the alternative used by the employer. The justification for safety and product evaluation determinations must be documented in writing.

### **Work Practice Controls**

All Nursing students will review and comply with health and safety practices specified in the CSUB Graduate and Undergraduate Nursing Student Policy Handbooks and procedures for assignments.

Plan work to minimize the potential for splash, spray or droplet generation.

Never reuse disposable sharps.

Do not bend, recap or remove sharps from devices unless a mechanical device or a one-handed technique is used, and the employer can demonstrate that no alternative is available.

Never pipette blood or OPIM by mouth.

Do not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses in areas where there is a reasonable likelihood of exposure to bloodborne pathogens.

Do not keep food or drink in refrigerators, freezers, shelves, cabinets or on counter or bench tops where blood or OPIM are present.

Place specimens of blood or OPIM in a container that prevents leakage during collection, handling, processing, storage, transport or shipping.

### **Personal Protective Equipment**

The University will provide PPE in campus labs and clinics. Faculty will verify that offsite clinics provide appropriate PPE to students participating in clinical assignments.

Use plastic facemasks with one-way valves for mouth-to-mouth emergency ventilation. These devices may require two hands to secure a proper face seal and to maintain an open airway. Users of these masks must be trained in the correct use of the device and two person CPR techniques if necessary.

Keep reusable PPE such as lab coats and household gloves clean. Store them in the work area. Wear gloves whenever it can be reasonably anticipated that there is a potential for direct skin contact with blood, OPIM, mucous membranes or non-intact skin. Do wash or disinfect examination gloves for reuse.

Check gloves for damage frequently.

Wash hands as soon as possible after removing gloves.

Wear masks, goggles, glasses with side shields, or chin-length face shields, singularly or in combination, whenever splashes, sprays, splatters or droplets of potentially infectious material may be generated and eye, nose or mouth contamination can be reasonably anticipated.

Wear protective clothing, such as aprons, lab coats or gowns if the potential for soiling the employee's street clothing exists. If blood or OPIM penetrates a garment, remove it immediately.

Closed toe shoes are required as part of the protective clothing ensemble.

Remove all PPE before leaving the work area.

### **Waste Disposal**

Place all sharps waste in rigid, red containers labeled biohazardous or sharps waste immediately following use.

Use a mechanical means such as tongs, brush or forceps to pick up contaminated broken glassware.

Never attempt to access items inside a sharps containers until it has been properly sterilized.

Cease using a sharps container when the container is 3/4 full. Never force sharps into a full container.

Sharps containers may be used for as long as it takes to reach \_ capacity of the container, unless the container holds organic putrefying material. If the container contains organic putrefying material, the retention time period is 7 days unless stored in a freezer.

Biohazard containers must be closed when moved to prevent spillage or sharp protrusion. Use a rigid secondary container to prevent leakage during handling and transport. The secondary container must bear the biohazard label.

Sealed sharps containers must be disposed of through a state permitted biomedical waste broker.

### **Security and Isolation**

Keep laboratory doors closed when work is performed on bloodborne pathogens. The area must be posted by placing the biohazard sign on entrance doors.

Lock biohazard work areas when unattended.

### **Housekeeping and Decontamination**

All equipment and work surfaces shall be promptly cleaned with a disinfectant, capable of killing HIV and hepatitis, after contact with potentially infectious material.

A 1:10 hypochlorite solution is effective for decontamination and can be prepared by slowly adding 1/4 cup household bleach to 2 \_ cups of water. Any other disinfectant with a label stating that it is effective in killing HIV and hepatitis may also be used.

Clean up and decontamination should only be conducted by persons who have completed bloodborne pathogen exposure control training and who understand the hazards of the contaminant.

Use housekeeping gloves as a physical barrier during decontamination. They may be washed, disinfected and reused. Additional PPE should be worn if splash hazards exist.

Contaminated laundry shall be placed and transported in bags labeled biohazardous.

### **RESEARCH INVOLVING HBV, HBC OR HIV**

Currently, CSUB is not involved in HBV, HBC or HIV research. Faculty, staff or students who wish to conduct this type of research, must notify the EH&S Office at ext. 2066 at least one month prior to beginning work.

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

An exposure incident is a specific eye, mouth, mucous membrane or non-intact skin penetration by blood or other potentially infectious material. Wash skin with soap and water or flush mucous

membranes with water immediately after contact with blood or OPIM. Report all employee exposure incidents to the area supervisor immediately. The employee's immediate supervisor will complete the Supervisors Report of Accident Form and refer the employee to the Student Health Center for immediate treatment. If the exposure resulted from the delivery of first aid, the Report of Accident Form should include a list of all other persons who were involved in providing first aid.

When the employer provides in-house post exposure evaluation, the employee must be advised of their right to refuse to consent to post exposure evaluation from the employers' healthcare professional. If the employee refuses to consent to evaluation at the CSUB Student Health Center, Health Center staff should notify Personnel immediately. Personnel will immediately arrange a confidential medical evaluation and follow-up from an alternate, non-employer, health care professional. The evaluation shall include:

- a. Documentation of the route(s) of exposure and the circumstances under which the incident occurred;
- b. Determination whether an exposure incident occurred;
- c. Identification and documentation of the source individual; and
- d. Offer of HBV vaccination series to unvaccinated persons within 24 hours of the exposure.

Document declination of the HBV vaccine series on the attached form. Baseline blood testing may be requested by the physician at the expense of the University. The exposed employee's consent is required for HIV testing. The treating physician must be provided with:

- a. A copy of 8 CCR 5193;
- b. Copies of required CSUB forms;
- c. A description of the exposed employee's duties;
- d. A copy of the Supervisors Report of Accident; and
- e. All medical records relevant to the appropriate treatment of the employee including vaccination status.

The physician must provide a written post exposure report to the University within 15 days of completion of the exposure evaluation. The report should contain an opinion whether hepatitis B vaccination is indicated for the employee and if the employee has begun the vaccination series. The report should document that the employee has been informed of the results of the full evaluation, and that the employee has been informed about medical conditions that require further evaluation or treatment. All other findings or diagnoses shall remain confidential and shall not be included in the written post-exposure evaluation report. A post exposure report cover sheet is attached. The physician's report should be completed using the attached form and submitted to CSUB Personnel with a completed copy of the sharps injury log for the incident. Personnel and

Health Center staff will notify Public Safety as soon as they become aware that an exposure occurred as the result of a crime.

### **Sharps Injury Log**

The attached sharps injury log form must be completed by the health care professional who completes the post exposure evaluation. A copy of each sharp injury log form shall be forwarded to the EH&S office where the sharps injury log will be maintained for five years. The sharps injury log will be provided upon request to the CA Department of Health Services and to the National Institute for Occupational Safety and Health. CSUB EH&S and Student Health Center staff will review the sharps injury log annually to evaluate the safety record of devices involved in causing injuries.

### **TRAINING AND RECORD KEEPING**

Each department head will insure that the occupationally exposed employees under their supervision receive training at the time of initial assignment and at least annually thereafter. Document training on the CSUB Safety Training Log Form. Supervisors should forward training records to EH&S to be logged in the campus safety training database. If there is a change in task or procedures that effects the employee's occupational exposure, additional training will be provided. Bloodborne pathogen training will include:

- a. The location of 8 CCR 5193;
- b. A general explanation of the epidemiology and symptoms of bloodborne diseases;
- c. An explanation of the modes of transmission of bloodborne pathogens;
- d. An explanation of the exposure control program and how an employee can obtain a copy of the written plan;
- e. An explanation of the appropriate methods for recognizing tasks which may involve exposure to potentially infectious materials;
- f. An explanation of the use and limitations of exposure control including appropriate engineering controls, work practices and personal protective equipment (PPE);
- g. The basis for selection of PPE;
- h. Information on the efficacy, safety, method of administration and benefits of the hepatitis B vaccine;
- i. Information on the actions to take in the event of an emergency involving blood or other potentially infectious materials;
- j. An explanation of the procedure to follow if an exposure incident occurs;
- k. Information on the post-exposure evaluation and follow-up;
- l. An explanation of the signs, labels and color coding used by the University to identify biohazardous areas and materials; and
- m. An opportunity for questions from employees about the University's Bloodborne Pathogen Program.

Medical records will be:

- a. Stored by the Student Health Center or University's medical monitoring contractor in confidential files;
- b. Available, during normal work hours, to the employee to whom the record pertains, to representatives of CAL/OSHA and to the employee's representative (with written consent from the subject employee); and
- c. Maintained for the duration of the employment plus 30 years.

## **CONTRACT SERVICES**

Companies contracting services to CSUB, that involve employee exposure to bloodborne pathogens, must have their own exposure control plan. Contractors must train their employees in accordance with the OSHA regulations including information that is specific to job duties at CSUB. A signed Contractor Illness and Injury Prevention Program Certification form must be provided to the University prior to the start of work.

## **PROGRAM REVIEW**

Environmental Health and Safety staff will coordinate annual review of the bloodborne pathogen exposure control plan to evaluate the program's effectiveness and regulatory compliance. The Science Safety Committee, Health Center staff and other effected parties will participate in the program review. The Exposure Control Plan will be revised as necessary to include new or modified tasks.