

# **APPENDIX A**

## **Exposure Control Plan**

## Exposure Control Plan

### ***POLICY***

The BYU College of Life Sciences Exercise Sciences Department Athletic Training Program is committed to providing a safe and healthful work environment for all participants. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Record keeping
- Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

### ***1. PROGRAM ADMINISTRATION***

**The Clinical Education Coordinator (CEC), in the Department of Exercise Sciences Athletic Training Program**, is responsible for the implementation of the ECP. **The CEC** will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. Contact location/phone number: 228E SFH, 801-422-4776:

Those employees and students who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP. **CEC** will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. Contact location/phone number: 228E SFH, 801-422-4776:

**Rebecca Scholl and/or CEC** will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and OSHA records are maintained and will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives. This includes initial training, annual refresher training and specific training necessary if new tasks are assigned requiring such training. Contact location/phone number: 5008 LSB, 801-422-6875

## ***2. EMPLOYEE EXPOSURE DETERMINATION***

The following is a list of job classifications in which **some** employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

<b>Job Title</b>	<b>Department/Location</b>	<b>Task/Procedure</b>
<b>Athletic Training Students</b>	<b>Exercise Sciences Athletic Training Rooms (SFH, MC, LaVell Edwards Stadium, SAB, Physician's Offices, MLRP, IPF, local high schools, UVU) Lab Classes</b>	<b>Care of open wounds, weep lesions, abrasions, blisters Care of open fractures Care of infected areas where drainage is present Performance of CPR Care of head injuries where drainage is present Care of nose bleeds, dental, oral injuries, and other injuries Cleaning and disposing of contaminated objects and surfaces Drawing blood</b>
<b>Athletic Training Faculty/Instructors</b>	<b>Exercise Sciences Athletic Training Room Lab Classes</b>	<b>Performance of CPR Cleaning and disposing of contaminated objects and surfaces Drawing blood</b>

## ***3. METHODS OF IMPLEMENTATION AND CONTROL***

### **3.a Universal Precautions**

All employees and students will utilize universal precautions. This means that all blood or other potentially contaminated material will be handled as if it were contaminated with a blood borne pathogen.

### **3.b Training On Exposure Control Plan**

Employees and students covered by the blood borne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees and students have an opportunity to review this plan at any time during their work shifts by contacting **the CEC**. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

**The CEC** is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures, which affect occupational exposure, and to reflect new or revised employee and student positions with occupational or educational exposure.

### 3.c Engineering Controls and Work Practices

Engineering controls and work practice controls will be used to prevent or minimize exposure to blood borne pathogens. These should be used whenever handling blood or OPIM and when specified in the protocol. The specific engineering controls and work practice controls used are:

- Biosafety Cabinet
- Self-capping needles
- Disposable gloves
- Lab coats
- Safety glasses
- Hand washing - after removal of gloves or other PPE; after any type of spill
- All procedures involving blood or OPIM will be performed in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances
- Work surfaces will be cleaned at the end of the shift or immediately after a spill.
  - Suitable disinfectant is **(1:10 bleach solution for surfaces and Hibiclens for skin)**
  - Handwashing after all procedures

Sharps disposal containers are inspected and maintained or replaced by **Aaron Wells** when they are at least 2/3 full or whenever necessary to prevent overfilling.

This department identifies the need for changes in engineering control and work practices through:

- Regulatory committee review of protocols and inspections
  - IBC
  - IACUC
  - CDC
  - DHS
  - OSHA
- University inspections/review of existing procedures and evaluate new procedures and products by:
  - College Safety Officer
  - University Biosafety Officer
  - IBC review
  - Laboratory PI/Supervisor

The CEC will ensure effective implementation of these recommendations.

### 3.d Personal Protective Equipment (PPE)

PPE is provided to our employees and students at no cost to them. Training is provided by **faculty and course instructors and athletic training room staff** in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees and students are as follows:

- Gloves
- Lab coats / aprons / protective gowns / booties
- Safety glasses
- Respirators – Respirators are obtained directly from Kerry Smith in Risk Management. Before respirators are issued the employee or student will need to have a fit test and training from Kerry Smith.

PPE is located within the labs/classes/athletic training rooms and may be obtained through Life Sciences Stockroom or Chemistry Central Store. Charges for PPE will be charged directly to the PI/Lab Supervisors account. Items needing to be ordered through an outside vendor (protective gowns/booties) will be purchased directly by the PI/Lab Supervisor.

All employees or students using PPE must observe the following precautions:

1. Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
2. Remove PPE after it becomes contaminated, and before leaving the work area.
3. Used PPE may be disposed of in appropriate containers for storage, laundering, decontamination, or disposal in each facility
  - Gloves –solid biohazard waste container
  - Lab coats can be laundered by BYU laundry services
    - Contaminated lab coats should be placed in a biohazard bag before transporting to laundry (881 W 1700 N) for cleaning. Request high temperature rinse.
4. Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.
5. Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration
6. Never wash or decontaminate disposable gloves for reuse
7. Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
8. Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

The procedure for handling used PPE is as follows:

All contaminated clothing and PPE must be disposed of following the disposal policies outlined in section 3.e. Any durable or permanent PPE must be cleaned with 10% bleach weekly or when visibly contaminated.

### 3.e Housekeeping

**Regulated waste** is placed in containers provided by Chemicals Management (801-422-4468) or containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (Labels can be obtained from Rebecca Scholl), and closed prior to removal to prevent spillage or protrusion of contents during handling.

**Sharps containers** are picked up by Chemicals Management for disposal. Containers must be closed prior to pickup.

**Other regulated waste** is placed in a red bag or in a bag with the Biohazard symbol and placed in a lined biowaste container in room.

**Autoclaves used for the decontamination of regulated waste** must be tested using a spore strip or equivalent means within one week of the date that a regulated material is autoclaved. In addition an autoclave log must be maintained showing the date, autoclave temperatures, and duration of cycle and name of the individual responsible for operating the autoclave used to sterilize a load of regulated waste.

**Contaminated sharps** are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and labeled or color-coded appropriately. Sharps disposal containers are available at Life Sciences Stockroom or Chemistry Stores.

**Bins and pails** (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

**Broken glassware**, which may be contaminated, is picked up using mechanical means, such as a brush and dustpan. And placed in a contaminated sharps container.

### 3.f Laundry

Laundry contaminated with blood or other potentially contaminated material should be placed in a dissolvable plastic bag then placed in a red bag. This should then be taken to Textile Cleaning Services and laundered.

At the laundry facility, people handling red bag materials will wear gloves and place the dissolvable bags directly into the washing machines.

### 3.g Labels

The following labeling method(s) is used in this facility:

Equipment to be Labeled	Label Type (size, color, etc.)
Glucometer	Red Biohazard symbol – Sharpes container

The CEC will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees and students are to notify Rebecca Scholl if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

### 3.h Task Procedures

**Care of open wounds, weep lesions, abrasions, blisters; Care of open fractures; Care of infected areas where drainage is present; Performance of CPR; Care of head injuries where drainage is present; Care of nose bleeds, dental, oral injuries, and other injuries; Cleaning and disposing of contaminated objects and surfaces; Drawing blood**

Suggested procedures for the ECP section on spill cleanup.

1. Secure the area (limit foot traffic) and inform others in the area about the contamination.
2. Obtain all of the equipment and cleaning supplies necessary for the cleanup, prior to performing the cleanup. *Note: List disinfectant by name and dilution. Disinfectants need to be capable of destroying Hepatitis B virus.*
3. Use gloves and if appropriate, lab coat and goggles. Goggles and outer coverings are required if there is a risk of splashing the blood or OPIM.
4. Remove any sharps and/or broken glass by using engineering controls such as pliers or tongs, and place the sharps and/or contaminated broken glass into a sharps container.
5. If the blood or OPIM could spatter then absorb the excess blood or OPIM with paper towels or kitty litter prior to disinfecting the contaminated area
6. Apply a disinfectant to the contaminated surface(s), and allow contact time as designated by the disinfectant manufacturer. (typically 5 to 10 minutes).
7. Following proper disinfection, use a sponge, paper towels, or mop to wipe the treated surface clean, and dispose of the contaminated material(s) in a proper biohazard bag.
8. Use a 10% bleach solution or a disinfectant capable of destroying Hepatitis B virus to clean your protective gloves, but do not remove the gloves yet.
9. Using the 10% bleach solution or disinfectant, clean the reusable items of PPE as you remove them.
10. While wearing the gloves, remove and properly dispose of the other disposable PPE.
11. Decontaminate the protective gloves again, remove them and dispose of them properly.
12. Properly seal the waste container(s) and bag(s), and dispose of them through Environmental Management.

## ***4. HEPATITIS B VACCINATION***

Rebecca Scholl or Edwin Jackson will provide training to students on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

Vaccination is encouraged unless: 1) documentation exists that the student has previously received the series, 2) antibody testing reveals that the student is immune, or 3) medical evaluation shows that vaccination is contraindicated.

However, if a student chooses to decline vaccination, the student must sign a declination form. Documentation of refusal of the vaccination is kept at **by the PD or the CEC – information is kept in students' files located in 270 SFH.**

If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be recommended students.

Vaccination will be available through the Student Health Center on BYU Provo campus or from your primary care physician.

Following hepatitis B vaccinations, the health care professional's Written Opinion will be limited to whether the student requires the hepatitis vaccine, and whether the vaccine was administered.

For people identified as having a high risk of exposure to blood or other potentially contaminated material as part of their routine duties, the HBV vaccine will be evaluated by testing the blood of the vaccinated person for HBV protective antibody titer within two months of completion of the vaccine series. The need for this post-vaccination evaluation will be determined by BYU Student Health Center physicians or primary care physician.

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

### **5a IMMEDIATE RESPONSE TO AN EXPOSURE INCIDENT.**

It is important that the medical evaluation and if necessary the initiation of post exposure prophylaxis be started as soon as possible after the exposure incident. Typically treatment should be started within **two hours** of the exposure incident.

1. Provide immediate first aid treatment to any exposure site by washing or flushing the contaminated area.
  - a. Wash contaminated skin with warm water and liquid soap for two minutes.
  - b. Irrigate any mucous membrane exposure with water for two minutes.
2. Encourage spontaneous bleeding of any contaminated injection or laceration site under warm water for two minutes.
3. Notify a full-time staff member or supervisor of the exposure. If no-one is in the immediate area contact university police at (801)-422-2222.
4. Report to Urgent Care at the Student Health Center if exposure occurs between 8:00 am and 5:00 pm Monday – Friday and 8:00 am to 12:00pm (noon) on Saturday. During the night or weekends, go directly to the Utah Valley Regional Medical Center Emergency Room for evaluation and post exposure follow-up.
5. Rebecca Scholl and/or Edwin Jackson will obtain the following information.
  - a. Document the routes of exposure and how the exposure occurred.
  - b. Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
  - c. Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's

- test results were conveyed to the employee's health care provider. If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- d. Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
  - e. After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.
  - f. If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.
  - g. Note: The employer will furnish post-exposure prophylaxis, for hepatitis B, and or HIV when medically indicated as recommended by the U.S. Public Health Service, counseling; and evaluation of the reported illnesses.

### **5b ADMINISTRATION OF POST-EXPOSURE EVALUATION AND FOLLOW-UP**

Risk Management and Safety ensures that the health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's Bloodborne Pathogens Standard. Rebecca Scholl will inform Risk Management that a bloodborne exposure has occurred.

Rebecca Scholl ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- a description of the employee's job duties relevant to the exposure incident
- route(s) of exposure
- circumstances surrounding the exposure incident
- if possible, results of the source individual's blood test
- relevant employee medical records, including vaccination status

Student Health Center provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

### **5c PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT**

The Rebecca Scholl will review the circumstances of all exposure incidents to determine:

- engineering controls in use at the time
- work practices followed
- a description of the device being used
- protective equipment or clothing that was used at the time of the exposure incident (**gloves, eye shields, etc.**)
- location of the incident
- procedure being performed when the incident occurred
- employee's training

If it is determined that revisions need to be made, Rebecca Scholl will ensure that appropriate changes are made to this ECP. (Changes may include an evaluation of safer devices, adding employees to the exposure determination list, etc.)



## **6. EMPLOYEE TRAINING**

All employees or students who have occupational exposure to blood borne pathogens receive training conducted by Rebecca Scholl and/or any **Exercise Sciences faculty or instructors in appropriate classes who have previously been trained by Rebecca Scholl.**

All employees or students who have occupational exposure to blood borne pathogens receive training on the epidemiology, symptoms, and transmission of blood borne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- a. a copy and explanation of the standard
- b. an explanation of our ECP and how to obtain a copy
- c. an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- d. an explanation of the use and limitations of engineering controls, work practices, and PPE
- e. an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- f. an explanation of the basis for PPE selection
- g. information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- h. information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- i. an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- j. information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- k. an explanation of the signs and labels and/or color coding required by the standard and used at this facility
- l. an opportunity for interactive questions and answers with the person conducting the training session.

In addition to exposure at BYU, students will also receive training for **off-site facilities** at those locations.

## **8 RECORDKEEPING**

### **Training Records**

Training records are completed for each employee or student upon completion of training. These documents will be kept for at least **three years in 270 SFH or 228E SFH by the PD or CEC.**

The training records include:

1. the dates of the training sessions
2. the contents or a summary of the training sessions
3. the names and qualifications of persons conducting the training
4. the names and job titles of all persons attending the training sessions

Employee or student training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed Rebecca Scholl

### **8.a Medical Records**

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20, "Access to Employee Exposure and Medical Records."

The Student Health Center is responsible for maintenance of the required medical records. These **confidential** records are kept at the student health center for at least the **duration of internship or class plus 30 years.**

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent Rebecca Scholl, 5008 LSB.

### **8.b Needlestick Records**

The following information is collected and submitted to Risk Management for each percutaneous injury from a contaminated sharp on a standard Supervisors Report.

- (A) the type and brand of device involved in the incident,
- (B) the department or work area where the exposure incident occurred, and
- (C) an explanation of how the incident occurred.

### **8.c OSHA Record keeping**

An exposure incident is evaluated to determine if the case meets OSHA's Record Keeping Requirements (29 CFR 1904). Risk Management and Safety makes this determination and completes the recording activities.

## ***9 HEPATITIS B VACCINE DECLINATION (MANDATORY FOR EMPLOYEES)***

*Students: Refer to Handbook and information provided in Clinical Education courses*

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 hepatitis B vaccination 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 to me.

Name of Employee (Please Print) \_\_\_\_\_

Date \_\_\_\_\_

Signature of Employee \_\_\_\_\_