

**KNOX COLLEGE
BLOODBORNE PATHOGENS
EXPOSURE CONTROL PLAN**

In accordance with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030, the following exposure control plan has been developed:

A. PURPOSE

The purpose of this exposure control plan is to:

1. Eliminate or minimize employee occupational exposure to blood or certain other body fluids;
2. Comply with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030.

B. EXPOSURE DETERMINATION

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. This exposure determination is required to list all job classifications at Knox College. Employees who may be expected, in the performance of defined duties, to incur exposure, regardless of frequency, are identified as Category A:

Category A

Athletic Trainers (including students)
Biology Lab Coordinator
Campus Safety Officers
Custodial Foreman
Custodians
Director of Building Services
Laundry Workers (athletics)
Plumber

In addition, OSHA requires a listing of job classifications in which employees may, as a collateral duty, have occupational exposure. Employees in these categories would not, by definition, be expected to incur exposure to blood or other potentially infectious materials, tasks or procedures. At Knox College, the following job classifications and associated tasks are identified as Category B:

Category B

<u>JOB CLASSIFICATION</u>	<u>TASKS/PROCEDURES</u>
Athletic Coaches	Assisting injured players
Dining Services staff	Use of sharp utensils and equipment
Director of Building Services	Assisting with clean up of unknown fluids
Director of Facilities Services	Assisting with injuries in Grounds, Building Services, and Maintenance
Director of Grounds and Grounds Workers	Assisting with any injuries in department using power equipment and blades
Director of Maintenance	Assisting with injuries in area of power tools
Director, Supervisors and Leads in Dining Services	Assisting with injuries from blades, broken glass, etc.
Faculty in Theatre and Physical Science Departments	Use of tools, instruments, blades and equipment, and assisting persons injured in labs and stage areas
Lab Coordinator and Technician	Assisting lab users if accident/injury occurs
Lead Plant Operator and Heating Plant Operator	Assisting with injuries in area of high pressure boiler and power tools
Residence Life Staff	Assisting with clean ups in dorms and student residence halls

Category C - All other job classifications are determined to have no risk of exposure.

C. IMPLEMENTATION SCHEDULE AND METHODOLOGY

OSHA also requires that this plan include a schedule and method of implementation for the various requirements of the standard. The following complies with this requirement:

1. Compliance Methods & Work Practice Controls

Universal precautions will be observed at Knox College in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual. Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees at Knox College. Where occupational exposure remains after institution of these controls, personal protective equipment (PPE) shall also be utilized. At Knox College, the following engineering controls will

be utilized:

- a) Proper hand-washing procedures (i.e. vigorously washing hands with soap for a period of at least 20 seconds) will be followed after any possible exposure. In those cases where contact with body fluids may occur unexpectedly (prior to obtaining personal protective equipment), ungloved hands and other affected areas should be thoroughly washed immediately after direct contact.
- b) If gross contamination to equipment or work areas occurs, the Director of Facilities Services or Director of Campus Safety should be notified immediately. Furthermore, the contaminated area should be isolated or closed off until proper decontamination procedures are completed. If area or equipment cannot be adequately decontaminated, area or equipment should be marked or labeled as bio-hazardous.
- c) Sanitation procedures will include washing contaminated surfaces with 1:10 bleach solution or other EPA registered germicide.
- d) Any clothing contaminated by body fluids or tissues will be discarded in bio-hazardous containers (i.e. red bags, etc.) as soon as feasible.
- e) If an employee is involved in an exposure incident (see “Definitions”), the exposure will be immediately reported to the appropriate department designee, who shall notify the Director of Human Resources no later than 24 hours after the incident so that proper reporting and medical follow-up can be completed.

The above controls will be examined and maintained on a regular basis by the Director of Human Resources.

Hand-washing facilities are available to employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after incurring exposure. At Knox College hand-washing facilities are located at all campus restrooms, janitorial closets, and most work areas. Any employee who does not believe that they have reasonable access to adequate hand-washing facilities should notify the Director of Human Resources.

Supervisors shall ensure that after the removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

Supervisors shall ensure that if employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as soon as feasible following contact.

2. Containers for Contaminated Needles

Contaminated needles are to be placed immediately, or as soon as possible after use, into appropriate needle containers. Such containers will be provided to employees and students who require use of needles for medical purposes. Needle containers will be puncture resistant and labeled with a biohazard label. When full, such containers

will be removed and disposed of by trained personnel only.

3. **Work Area Restrictions**

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, such as restrooms, athletic dressing rooms, and athletic training rooms, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept on shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.

All work procedures, such as cleaning and sanitizing contaminated surfaces and equipment, will be conducted in a manner which will minimize splashing, spraying and splattering of blood or other potentially infectious materials.

4. **Personal Protective Equipment (PPE)**

a) **PPE Provision**

All personal protective equipment used at Knox College will be provided without cost to employees. 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 employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

b) **PPE Use**

The Supervisor shall ensure that the employee uses appropriate Personal Protective Equipment (PPE).

c) **PPE Accessibility**

The Supervisor shall ensure that appropriate PPE in the appropriate sizes is readily accessible at the work site or is issued without cost to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

d) **PPE Cleaning, Laundering and Disposal**

All personal protective equipment will be cleaned, laundered, or disposed of by the employer at no cost to the employees. All repairs and replacements will be made by the employer at no cost to employees.

All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All PPE will be removed prior to leaving the work area.

When PPE is removed, it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

e) **PPE Monitoring Schedules**

Supplies and PPE shall be checked and restocked according to department

schedules. Departments will provide the schedule to Director of Human Resources upon request.

f) **Gloves**

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes; when handling or touching contaminated items or surfaces.

Disposable gloves used at Knox College are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

g) **Eye and Face Protection**

Eye protection devices, such as goggles or glasses with solid side shield, or chin length face shields, are required to be worn whenever potentially infectious materials may be generated or contacted and eye, nose, or mouth contamination can reasonably be anticipated. Such protection should be worn when cleaning campus facilities where potentially infectious materials may be generated or contacted (.i.e. campus restrooms, athletic dressing rooms, and athletic training rooms).

5. **First Aid**

This section covers recommended exposure precautions for first aid procedures. Independent judgment should be exercised when deciding whether or not first aid should be administered. These judgment decisions should be based on the individual's skills and anticipated degree of first aid.

Appropriate personal protective equipment (PPE) should be used when administering any first aid procedures involving exposure to human body fluids, non-intact skin, or other potentially infectious materials. PPE may include, but is not limited to; latex gloves, glasses, smocks or lab coats, and micro-shield mouth barriers. Extent of exposure and PPE needed should be determined by the type and volume of body fluids and route of exposure. For example, frocks or lab coats, glasses, and masks or face shields should be worn if splashing of potentially infectious materials is anticipated. As a minimum, latex gloves should be worn whenever any contact with potentially infectious materials is anticipated. Latex gloves should be worn when touching equipment and instruments contaminated with potentially infectious materials. Latex gloves should be worn during cleaning and decontamination procedures. Micro-shield mouth barriers should be used during CPR procedures. PPE should be changed before another patient is treated. PPE should be removed before leaving the first aid area. PPE should be placed in designated containers for storage and decontamination or disposal. Employees should wash their hands and any

contaminated body surfaces with soap and water immediately after removing PPE or any possible exposure.

6. **Housekeeping**

Disposable (single use) or utility (reusable) gloves should be worn when potential for any exposure exists (i.e. touching or cleaning contaminated surfaces and equipment, etc.). Appropriate eye and face protection (i.e. goggles, face shield, etc.) should be worn whenever splashes, spray, spatter, droplets, or aerosols of blood or other potentially infectious materials are present.

All surfaces and equipment shall be properly cleaned and decontaminated after contact with blood and/or bodily fluids. During periods of regular use, campus restrooms, athletic dressing rooms, and athletic training rooms, will be cleaned and decontaminated at least twice weekly, more often if required by usage.

Decontamination will be accomplished by utilizing a 1:10 bleach solution or other EPA registered germicides.

All contaminated surfaces and equipment will be isolated and decontaminated immediately or as soon as feasible after any spill of blood or other potentially infectious materials. All bins, pails, cans, and similar receptacles shall be inspected and decontaminated on at least a weekly basis. Any broken glassware which may be contaminated will not be picked up directly with the hands.

All potentially infectious waste should be placed into an appropriately marked (i.e. bio-hazardous waste) plastic bag or other appropriate container and sealed. If the outside of the bag or container becomes contaminated, it should be placed within an appropriately marked second bag or container.

Needles that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these needles have been placed. Contaminated needles should be placed in appropriate puncture resistant containers and marked as bio-hazardous waste. At Knox College, persons required to use hypodermic needles or other medically required needles will be asked to use College provided needle containers for needles disposal.

7. **Contaminated Laundry Procedures**

Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible and only after the appropriate PPEs are in place. Such laundry will be immediately placed in appropriately marked (biohazard labeled, or color coded red bag) bags at the location where it was used. Contaminated laundry will not be sorted or rinsed in the area of use. Contaminated laundry will be rinsed or washed separately using a 1:10 bleach solution or other EPA approved disinfectant.

8. **Hepatitis B Vaccine and Post-Exposure Evaluation and Follow-Up**

a) **General**

Knox College shall make available the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post exposure follow-up to employees who had an exposure incident.

The Director of Human Resources shall ensure that all medical evaluations and procedures including the Hepatitis B Vaccine and vaccination series and post exposure follow-up, including prophylaxis are:

- 1) Made available at no cost to the employee;
- 2) Made available to the employee at a reasonable time and place;
- 3) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed health care professional; and
- 4) Provided according to the recommendations of the U.S. Public Health Service.

All laboratory tests shall be conducted by an accredited laboratory at no cost to the employee.

b) **Hepatitis B Vaccination**

The Director of Human Resources is in charge of the Hepatitis B vaccination program.

Hepatitis B vaccination shall be made available after the employee has received the training in occupational exposure (see information and training) initially upon assignment of all employees who have occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

Participation in a pre-screening program shall not be a prerequisite for receiving Hepatitis B vaccination. If the employee initially declines Hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the vaccination shall then be made available.

All employees who decline the Hepatitis B vaccination offered shall sign the OSHA required waiver indicating their refusal.

If a routine booster dose of Hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster doses shall be made available.

c) **Post Exposure Evaluation and Follow-up**

All exposure incidents shall be reported, investigated, and documented. When the employee incurs an exposure incident, it shall be reported to the appropriate department head or supervisor immediately.

Following a report of an exposure incident, the exposed employee shall

immediately receive a confidential medical evaluation and follow-up, including at least the following elements:

- 1) Documentation of the route of exposure, and the circumstances under which the exposure incident occurred.
- 2) Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.
- 3) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the Director of Human Resources shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.
- 4) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.
- 5) Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Collection and testing blood for HBV and HIV serological status will comply with the following:

- 1) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.
- 2) The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard. All post exposure follow-up will be performed by a College appointed physician.

d) **Information Provided To the Health Care Professional**

The Director of Human Resources shall ensure that the health care professional responsible for the employee's Hepatitis B vaccination is provided with the following:

- 1) A copy of 29 CFR 1910.1030;

- 2) A written description of the exposed employees' duties as they related to the exposure incident;
- 3) Written documentation of the route of exposure and circumstances under which exposure occurred;
- 4) Results of the source individuals blood testing, if available; and
- 5) All medical records relevant to the appropriate treatment of the employee including vaccination status.

e) **Health Care Professional's Written Opinion**

The Director of Human Resources shall obtain and provide the employee with a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.

The health care professional's written opinion for HBV vaccination shall be limited to whether HBV vaccination is indicated for an employee, and if the employee has received such vaccination.

The health care professional's written opinion for post exposure follow-up shall be limited to the following information:

- 1) A statement that the employee has been informed of the results of the evaluation; and
- 2) A statement 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.

(Note: All other findings or diagnosis shall remain confidential and shall not be included in the written report.)

9. **Labels and Signs**

The Director of Facilities Services shall ensure that biohazard labels shall be affixed to containers of regulated waste, or other potentially infectious materials.

The universal biohazard symbol shall be used. The label shall be fluorescent orange or orange-red. Red bags or containers may be substituted for labels. However, regulated wastes must be handled in accordance with the rules and regulations of the organization having jurisdiction.

10. **Information and Training**

The Director of Human Resources shall ensure that training is provided at the time of initial assignment to tasks where occupational exposure may occur, and that it shall be repeated within twelve months of the previous training. Training shall be tailored to the education and language level of the employee. The training will be interactive and cover the following:

- a) A copy of the standard and an explanation of its contents;
- b) A discussion of the epidemiology and bloodborne diseases;
- c) An explanation of the modes of transmission of bloodborne pathogens;
- d) An explanation of the Knox College Bloodborne Pathogen Exposure Control Plan (this program), and a method for obtaining a copy.
- e) The recognition of tasks that may involve exposure.
- f) An explanation of the use and limitations of methods to reduce exposure, for example engineering controls, work practices and personal protective equipment (PPE).
- g) Information on the types, use, location, removal, handling, decontamination, and disposal of PPEs.
- h) An explanation of the basis of selection of PPEs.
- i) Information on the Hepatitis B vaccination, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge.
- j) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- k) An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up.
- l) Information on the evaluation and follow-up required after an employee exposure incident.
- m) An explanation of the signs, labels, and color coding systems.

The person(s) conducting the training shall be knowledgeable in the subject matter.

Employees who have received training on bloodborne pathogens in the twelve months preceding the effective date of this policy shall only receive training in provisions of the policy that were not covered.

Additional training shall be provided to employees when there are any changes of tasks or procedures affecting the employee's occupational exposure.

11. **Recordkeeping**

a) **Medical Records**

The Director of Human Resources is responsible for maintaining medical records as indicated below. These records will be kept at the Knox College Human Resources Office.

Medical records shall be maintained in accordance with OSHA Standard 29 CFR 1910.20. These records shall be kept confidential, and must be maintained for at least the duration of employment plus 30 years. The records shall include the following:

- 1) The name and social security number of the employee.
- 2) A copy of the employee's HBV vaccination status, including the dates of vaccination.
- 3) A copy of all results of examinations, medical testing, and follow-up procedures.
- 4) A copy of the information provided to the health care professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure.

b) **Training Records**

The Director of Human Resources is responsible for maintaining the following training records. These records will be kept at the Knox College Personnel Office. Training records shall be maintained for three years from the date of training.

The following information shall be documented:

- 1) The dates of the training sessions;
- 2) An outline describing the material presented;
- 3) The names and qualifications of persons conducting the training;
- 4) The names and job titles of all persons attending the training sessions.

c) **Availability**

All employee records shall be made available to the employee in accordance with 29 CFR 1910.20.

All employee records shall be made available to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and the Director of the National Institute for Occupational Safety and Health upon request.

d) **Transfer of Records**

If Knox College is closed or there is no successor employer to receive and retain the records for the prescribed period, the Director of the NIOSH shall be contacted for final disposition.

12. **Evaluation and Review**

The Director of Human Resources is responsible for annually reviewing this program, and its effectiveness, and for updating this program as needed.

13. **Dates**

All provisions required by this standard will be implemented immediately.

14. Definitions

- a) **Contaminated:** the presence or reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- b) **Contaminated Laundry:** laundry soiled with blood or other potentially infectious materials or needles.
- c) **Contaminated Needles:** any contaminated needles than can penetrate the skin.
- d) **Decontamination:** use of physical or chemical means to remove, inactive or destroy bloodborne pathogens on a surface or item to the point where they can no longer transmit infectious particles and the surface or items are rendered safe for handling, use or disposal.
- e) **Exposure Incident:** specific eye, mouth, mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results from performance of an employee's duties.
- f) **Hand-washing Facilities:** a facility providing adequate supply of running potable water, soap, single-use towels or hot-air drying machines.
- g) **Occupational Exposure:** reasonable anticipated skin, eye, mucous membrane or parental contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
- h) **Other Potentially Infectious Materials:** 1.) the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; 2.) any unfixed tissue or organ (other than intact skin) from a human (living or dead); and 3.) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.
- i) **Regulated Waste:** liquid or semi-liquid blood or potentially infected materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items caked with dried blood or other potentially infectious materials capable of releasing these materials during handling; contaminated needles; and pathological and microbiological wastes containing blood or potentially infectious materials. (NOTE: Per OSHA's Assistant Regional Director, urine, feces, vomit and saliva not in dental procedures, does not represent regulated waste unless it is visibly contaminated with blood.)
- j) **Source Individual:** any individual (living or dead) whose blood or other potentially infectious materials may be a source of occupational exposure to employees.

- k) **Work Practice Controls:** controls that reduce the likelihood of exposure by altering how a task is performed.