Department of
Environmental and Occupational
Health and Safety

180 E. Mill Street
Akron, Ohio 44325-0607

BLOODBORNE PATHOGEN STANDARD 29 CFR 1910.1030

SUMMARY

1. **DEFINITIONS**

BLOOD
Human blood, human blood components, and products made from human blood.

BLOOD-BORNE PATHOGENS
Microorganisms present in blood and able to cause disease in humans. These include but are not limited to **HBV and HIV**.

ENGINEERING CONTROLS
Sharp disposable containers, self-sheathing needles that isolate or remove the blood-borne pathogens hazard.

OCCUPATIONAL EXPOSURE
Reasonably anticipated skin, eye, mucous membrane, or parenteral contact that may result from the performance of an employee's duty. Parenteral means piercing the skin barrier through cuts, human bites, abrasions.

EXPOSURE CONTROL PLAN
This plan must contain:

- The Exposure Determination
- The Schedule and Method of Implementation
- The Procedure for Evaluation of Exposure Incidents

PERSONAL PROTECTIVE EQUIPMENT
Includes gloves, gowns, laboratory coats, face shields, eye protection, masks and other devices.

CONTAMINATED
The presence or reasonably anticipated presence of blood or potentially infectious body fluid on laundry items or sharps or glassware.

REGULATED WASTE
Infectious waste. Any item soiled with blood or other body fluids such as sharps, clothing, and glassware. This waste must be treated as Infectious Waste.

WORK PRACTICE CONTROLS
Measures that reduce likelihood of exposure such as adherence to the practice of universal procedures, prohibiting recapping of needles or other sharps, and prohibiting pipetting or suctioning by mouth.

POTENTIALLY INFECTIOUS MATERIALS
The following human body fluids: semen, vaginal secretions, cerebrospinal, synovial, pericardial, pleural, peritoneal, amniotic, saliva in dental procedures, and any other body fluid in situations where it is impossible to distinguish between fluids.

Any unfixed tissue or organ from a dead or living human. HIV-containing cell or tissue cultures, organ cultures, and HIV-or HBV containing culture medium or other solutions from experimental animals infected with HIV or HBV.

BIOLOGICAL HAZARD
The term biological hazard or biohazard is taken to mean any viable infectious agent (etiologic agent) that presents a risk, or a potential risk, to the well-being of humans. Each supervisor has

identified the specific biological hazard associated with your job, and the supervisor will arrange for your training, if necessary.

ETIOLOGIC AGENTS
The United States Department of Health and Human Services, Public Health Service, Classification of Etiologic Agents on the Basis of Hazard, is the classification system used at The University of Akron for etiologic agents.

MEDICAL WASTES/INFECTIOUS WASTES
All laboratory waste emanating from human or animal tissues, blood or blood products or fluids; all cultures of tissues or cells of human origin or cultures of etiologic agents; specimens of human or animal parts or tissues removed by surgery, autopsy, or necropsy.

UNIVERSAL PRECAUTIONS
Refers to a system of infectious disease control that assumes that every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with blood-borne pathogens. All infectious/medical material must be handled according to Universal Precautions.

2. WHO MUST COMPLY

All University employees that could be exposed to human blood, human blood components, and products made from human blood, and other potentially infectious materials as defined earlier. This includes all those designated by their supervisors and on payroll at:

Student Health Services

University Police

Department of Environmental & Occupational Health & Safety

Athletics (Sports Medicine)

Allied Health

Department of Biology

The College of Nursing

Biomedical Engineering

Department of Chemistry

Department of Physical Health

Blood-borne pathogens covered are **Hepatitis B virus (HBV)** and the **Human Immunodeficiency virus (HIV)**

Medical wastes/Infectious wastes: All laboratory waste emanating from human or animal tissues, blood or blood products or fluids; all cultures of tissues or cells of human origin or cultures of etiologic agents; specimens of human or animal parts or tissues removed by surgery, autopsy, or necropsy.

Universal precautions: Refers to a system of infectious disease control which assumes that every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with blood-borne pathogens. All

4. **WASTE DISPOSAL PLAN**

1. Medical/Infectious waste must be segregated from other waste at the point of origin.

2. Medical/Infectious waste, except for sharps (e.g. razor blades, broken glass, needles, etc.) capable of puncturing or cutting must be contained in double, disposable, red bags conspicuously labeled with the words, "INFECTIOUS WASTE – BIO HAZARD."

3. Infectious sharps must be contained for disposal in leak proof, rigid, puncture resistant containers (available from The University of Akron).

4. Infectious waste thus contained as described in procedures 2 and 3 above must be placed in reusable or disposable leak proof bins or barrels which must be conspicuously labeled with the words "INFECTIOUS WASTE – BIO HAZARD." These waste barrels are to be picked up regularly by an outside company licensed to handle infectious wastes.

5. Mixed waste that includes biological/infectious waste and radioactive waste must be disinfected by a person trained in radioisotope safety and waste disposal procedures. After disinfection, call the Responsible Safety Officer for disposal.

6. Spills/Disinfectants: a solution of sodium hypochlorite (household bleach) diluted 1:9 with water must be used to disinfect, following initial clean up of a spill with a chemical germicide approved as a hospital disinfectant. Spills must be cleaned up immediately.

7. After removing gloves, and/or after contact with body fluids, hands and other skin surfaces must be washed thoroughly and immediately with soap or other disinfectant in hot water.

8. Other biological wastes that do not contain radioactive or hazardous substances may be disinfected by steam sterilization (autoclave) and then disposed of in the regular trash.

9. Liquid biohazard waste may be disposed of in the sewage system following chemical decontamination.

10. Reusable glassware must be decontaminated in sodium hyperchlorite (household bleach) solution (1:9) prior to rinsing and acid washing. Then the glassware must be sterilized in an autoclave.

All supervisors must ensure that their staff is trained in proper work practices, the concept of universal precautions, personal protective equipment, and in proper clean-up and disposal techniques.

5. **OTHER CONSIDERATIONS**

1. The University will promote good **housekeeping** by ensuring that the work site is clean and in good sanitary condition. Each department will be encouraged to

develop a schedule for cleaning and a method for decontamination of work sites. Work sites include fixed and mobile facilities, temporary or permanent. Contaminated equipment or work sites should be cleaned after a procedure, when they are contaminated, and at the end of a workday. Reusable containers must be periodically inspected.

2. The University will make available the H**epatitis B vaccine** and vaccination series to all employees who have occupational exposure. It will also ensure that all medical evaluations and procedures are made available at no cost to employees, at a reasonable time and place, performed by the University Physician, and according to the U.S. Public Health Service. Post-exposure and follow-up evaluations will be available to employees.

3. The University will display proper **signs and labels**. Warning labels will be affixed on waste containers. These labels will have the **biohazard** logo and appearance.

4. Sharps must be handled according to the Infectious Waste Standard under the Ohio Revised Code. Sharp containers must be **Red** or labeled **Biohazard** and marked with the universal biohazard symbol. They must be readily available, closed prior to moving them, and disposed according to the medical disposal laws.

5. Post-exposure evaluation and follow-up will include: Evaluating the source and manner of employee exposure by the employee's supervisor. A form provided by The Department of Envir. & Occup. Health & Safety will have:

   Test results of the source blood
   Test results of the employee's blood
   Medical prophylaxis used
   Counseling statement about the employee
   Evaluation of any reported illness in the weeks following exposure
   Copy of the OSHA Standard, the employee's duties, and relevant medical records to the health care professional performing the evaluation

6. EMPLOYEE INFORMATION AND TRAINING

Pertinent employees will participate in a training program at no cost, during work hours, and with materials appropriate to the literacy, education, and language of the employee.

The training will include:

A copy of the standard for each employee and an explanation of the content.
A general explanation of blood-borne pathogens and how they are transmitted.
Explanation and access to the Exposure Control Plan.
Explanation of the University Policy on Personal Protective Equipment.
An awareness of tasks that may involve exposure and how to avoid or minimize it.
All pertinent Hepatitis B training.
How to handle emergencies involving exposure.
Explanation on biohazard labels.

7. PERSONAL PROTECTIVE EQUIPMENT

The University of Akron will make available gloves, coats, eye and mouth protection equipment, and other appropriate items needed to avoid or minimize employee exposure.

It is the duty of all employees to use protective equipment while on duty. Coats will be cleaned at the University's expense, by an outside company, and other equipment will be kept in clean, appropriate, and easily accessible containers. Disposable equipment will be handled as infectious waste.

8.

Masks, Goggles, Face Shields

Wear the right eye and face equipment to give you complete protection

Gowns, Aprons, Surgical Caps

These help provide complete body protection

Remove contaminated clothing carefully and dispose of properly