



# WAKE FOREST

## UNIVERSITY

### **Exposure Control Plan for Bloodborne Pathogens** **Revised August 12, 2010**

#### **Introduction and Scope**

On December 6, 1991, the Occupational Safety and Health Administration (OSHA) promulgated the final rule (29 CFR 1910.1030) for occupational exposure to bloodborne pathogens. The rule, commonly referred to as the Bloodborne Pathogen Standard was promulgated under the authority of the Occupational Safety and Health Act of 1970 and was designed to eliminate or minimize occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and other bloodborne pathogens.

Wake Forest University recognizes the health hazards associated with exposure to bloodborne pathogens. The University has the goal of protecting the health and safety of employees, students, and the public.

The Department of Environmental Health and Safety (EHS) is charged with the responsibility for the development and implementation of a University Bloodborne Pathogens Compliance Program. The program is designed to provide regulatory compliance and a means by which University employees will be informed about and protected from exposures to blood and other potentially infectious materials during the performance of their duties. The EHS Department will provide technical assistance and resources to University departments as necessary.

#### **Regulatory Standard**

The OSHA Bloodborne standard should be referenced for a complete understanding of compliance issues. The regulatory text can be obtained from OSHA's Internet site at [www.osha.gov/](http://www.osha.gov/)

## Definitions

TERM	DEFINITION
<b>Blood</b>	Human blood, human blood components and products made from human blood.
<b>Bloodborne Pathogens</b>	Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
<b>Contaminated</b>	The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
<b>Contaminated Laundry</b>	Laundry which is wet with blood or other potentially infectious materials and presents a reasonable likelihood of soak through or leakage from the bag or container; laundry which may contain sharps
<b>Contaminated Sharps</b>	Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, glass, capillary tubes, and exposed ends of dental and orthopedic wires.
<b>Decontamination</b>	The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item.
<b>Disinfect</b>	To inactivate virtually all recognized pathogenic microorganisms but not necessarily all microbial forms (e.g., bacterial endospores) on inanimate objects.
<b>Engineering Controls</b>	Controls that isolate or remove the hazard from the work place.
<b>Exposure Incident</b>	A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
<b>Occupational Exposure</b>	(Actual or) reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. For the purposes of identifying anticipated exposures, this definition excludes incidental exposures that may take place on the job, and that are neither reasonably nor routinely expected and that the worker is not required to incur in the normal course of employment.

**DEFINITIONS  
(Continued)**

TERM	DEFINITION
<b>Other Potentially Infectious Materials</b>	<p><b>(1)</b> The following body fluids: semen, vaginal secretions, cerebrospinal fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and any body fluid that is visibly contaminated with blood;</p> <p><b>(2)</b> any unfixed tissue or organ (other than intact skin) from a human (living or dead); and</p> <p><b>(3)</b> HIV- or HBV-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.</p>
<b>Parenteral</b>	Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts and abrasions.
<b>Personal Protective Equipment (PPE)</b>	Specialized clothing or equipment worn by an employee for protection against a hazard, such as gloves, gowns, goggles, face shields, etc.
<b>Source Individual</b>	Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.
<b>Sterilize</b>	The use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.
<b>Universal Precautions</b>	A method of infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.
<b>Work Practice Controls</b>	Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

## Responsibilities

Although Environmental Health and Safety is charged with the overall responsibility to develop and implement the University's Bloodborne Pathogen Compliance Program, several other University departments and units provide support.

Individual departments and units will be responsible for ensuring that the provisions of the University's Exposure Control are exercised. Departments and units which have been identified as having employees with occupational exposure may include, **but are not necessarily limited to:**

Athletics  
Cardiac Rehab  
Biology  
Chemistry  
Facilities and Campus Services  
Graylyn Conference Center  
Health & Exercise Science  
NanoTechnology Center  
Physics  
Reynolda House  
Environmental Health and Safety  
Student Health Services  
University Police  
WFU Emergency Response Team (Students)

## Exposure Control

Employees incur risk each time they are exposed to blood or other potentially infectious materials. Any exposure incident may result in infection and subsequent illness. Considering the possibility of becoming infected from a single exposure incident, exposure incidents must be prevented whenever possible. The goal of the Bloodborne Pathogen Standard is to reduce the significant risk of infection by:

- eliminating or minimizing occupational exposure to blood and other potentially infectious material,
- providing the Hepatitis B vaccine, and
- providing post exposure medical evaluation and follow-up.

Identifying the tasks and procedures where occupational exposure may occur and the positions whose duties include those tasks and procedures is a critical element of exposure control.

## Exposure Control Plan

The key provision of the Bloodborne Pathogen Standard is the written Exposure Control Plan. The Exposure Control Plan identifies individuals who will receive training, protective equipment, vaccinations, and other provisions of the standard.

Based on the requirements established by the standard, the Wake Forest University Bloodborne Pathogen Exposure Control Plan has been developed and designed to eliminate or minimize University employee occupational exposure to bloodborne pathogens during the performance of their duties.

### Elements

- Exposure determination,
- Procedure for the evaluation of circumstances surrounding exposure,
- Schedule and methods of implementation for:
  - Universal precautions, engineering and work practice controls, personal protective equipment, and housekeeping,
  - Hepatitis B vaccination and post-exposure evaluation and follow-up,
  - Communication of hazards to employees, and
  - Recordkeeping.

The plan will be reviewed and updated **annually** to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review of the University Plan is the responsibility of the Safety Director.

Individual departments will develop specific exposure control procedures to complement the University plan. Plans will be subject to review by the Environmental Health and Safety Director.

### Exposure Determination

An initial review of employee positions at the University was conducted to determine which employees have occupational exposure to blood or other potentially infectious materials during the performance of their duties. The exposure determination review was conducted without regard to the use of personal protective equipment.

### Methods of Compliance

#### Universal Precautions

Universal precautions will be observed by all University employees to prevent contact with blood and other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, **all body**

**fluids** will be considered potentially infectious. University employees should treat “commercially available” materials derived from human blood, bodily fluids or tissue as potentially infectious, unless it has been tested and proven negative for HIV or HBV.

Universal precautions are methods of preventing disease by preventing transfer of blood and potentially contaminated body fluids, e.g. semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, procedures. The underlying concept of universal precautions is that all blood and certain body fluids are considered to be infectious for bloodborne pathogens. In most situations, an employee will treat all blood and certain body fluids as though they contained bloodborne pathogens and would accomplish this through a variety of measures including, but not necessarily limited to:

- Engineering controls
- Work practice controls
- Personal protective equipment
- Housekeeping

The only exception to the use of universal precautions is in rare instances, such as unexpected medical emergencies, where employees may not be able to put on gloves, don a gown, or tie on a face mask immediately. In those situations where leeway must be accorded the provider of health care or public safety services, the employees must not ignore the underlying concept of universal precautions nor should he or she decline to use any personal protective equipment simply because it is not practical. **Only under unexpected extraordinary circumstances will employees have the option of deciding not to use personal protective equipment** if they feel such equipment will prevent the proper delivery of health care or public safety services or will create a greater hazard to their personal safety if they used such equipment.

The universal precaution exemption provided in the standard applies not to the general concept of universal precautions, but only to the use of personal protective equipment under rare and relatively limited circumstances.

### **Engineering and Work Practice Controls**

Engineering and work practice controls serve to reduce employee exposure in the workplace by either removing the hazard or isolating the worker from exposure. In fact, these control measures are viewed as the primary means of eliminating or minimizing employee exposure. These controls may include process or equipment redesign, e.g., self-sheathing needles, process or equipment enclosure, e.g., biosafety cabinets and employee isolation. In general, engineering controls act on the source of the hazard and eliminate or reduce employee exposure without reliance on the employee to take self-protective action. Once implemented, engineering controls protect the employee permanently, subject only, in some cases, to periodic replacement or preventative maintenance.

By comparison, work practice controls reduce the likelihood of exposure through alteration of the manner in which a task is performed. While work practice controls also act on the source of the hazard, the protection they provide is based upon the behavior of the employer and employee behavior rather than installation of a physical device such as a protective shield.

These two control methodologies frequently work in tandem because it is often necessary to employ work practice controls to assure affective operation of engineering controls.

Primary reliance on engineering controls and work practices for controlling exposure is consistent with good industrial hygiene practice and with the OSHA traditional adherence to a hierarchy of controls. The hierarchy specifies that engineering controls and work practices are to be used in preference to personal protective equipment.

Engineering and work practice controls will be used by University departments and employees to eliminate or minimize exposure. Where occupational exposure remains after institution of these controls, personal protective equipment will also be used. Department Heads shall establish and maintain engineering controls. Engineering controls will be examined and maintained or replaced on a regular schedule to ensure their effectiveness. The following engineering and work practice controls shall be in place at University facilities that present potential bloodborne pathogen exposure issues:

- Handwashing facilities are readily accessible in the workplace to employees that are reasonably anticipated to contact blood or other potentially infectious materials during the performance of their duties. In the event that handwashing facilities are not feasible, provisions will be provided for the placement of either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, employees have been instructed to wash their hands with soap and running water as soon as possible.
- Employees are required to wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment. And, most importantly, employees are required to wash their hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.
- Contaminated needles and other contaminated sharps will not be recapped or removed unless it can be demonstrated that no alternative is feasible or that such action is required by a specific medical procedure. Under these circumstances, recapping or needle removal shall be accomplished through the use of a mechanical device or a one-handed technique.
- Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in an appropriate container until properly processed. These containers shall be:
  - Puncture resistant

- Appropriately labeled or color-coded
  - Leakproof on the sides and bottoms
  - Shall not be handled in a manner that requires employees to reach, by hand, into containers where these sharps have been placed.
  - Reprocessing generally refers to autoclaving techniques.
- Eating, smoking, drinking, applying cosmetics or lip balm, and handling contact lenses is prohibited in work areas where there is reasonable likelihood of occupational exposure. Food and drink will not be stored in refrigerators, freezers, shelves, cabinets, or on cabinet tops or bench tops where blood or other potentially infectious materials are present.

All procedures involving blood or other potentially infectious materials shall be performed in a manner to minimize splashing, spraying, spattering, and generations of droplets of these substances.

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping. The container for storage, transporting, or shipping shall be labeled or appropriately color-coded and closed prior to being stored, transported or shipped. When universal precautions are utilized in the handling of specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exception only applies while such container is being handled by the person generating material. It must be appropriately labeled/ color-coded prior to being given to any other individuals.

If an outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded. If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

- Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary. An appropriate readily observable label will be attached to the equipment stating which portions remain contaminated. The University department which ships the equipment is responsible to ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer as appropriate, prior to handling, servicing, or shipping.

## **Personal Protective Equipment**

When there is occupational exposure, the department will provide, at no cost to the employee, appropriate equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment shall be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, or undergarments, 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.

The department shall ensure that the employee uses appropriate personal protective equipment.

The department shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powerless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

The department will clean, launder, and dispose of personal protective equipment at no cost to the employee. The department will repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

If a garment(s) is penetrated by blood or other potentially infectious materials, the garment will be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area. When personal protective equipment is removed, it will be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures; and when handling or touching contaminated items or surfaces.

Disposable, single use, gloves such as surgical or examination gloves, will be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Disposable, single use, gloves will not be washed or decontaminated for reuse. Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeled, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Masks, in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated. Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can be reasonably anticipated.

### **Housekeeping**

Departments shall ensure that the worksite is maintained in a clean and sanitary condition. The department will determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and task or procedures being performed in the area.

All equipment and environmental services shall be decontaminated with an appropriate disinfectant after completion of procedures immediately when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

Protective coverings, e.g., plastic wrap, aluminum foil, or imperviously-backed absorbent paper, used to cover equipment and environmental surfaces, will be removed and replaced as soon as feasible whenever they become overtly contaminated or at the end of the work shift if they may have become contaminated during the shift.

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials will be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

Broken glassware which may be contaminated will not be picked up directly with the hands. The spill and/or debris will be cleaned up using mechanic means such as a brush and dust pan, tongs, or forceps.

Reusable sharps that are contained with blood or other potentially infection materials will not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

Contaminated sharps will be discarded immediately or as soon as feasible in containers that are:

- Closable
- Puncture resistant
- Leakproof on sides and bottom
- Appropriately labeled or color-coded.

During use, containers for contaminated sharps shall be:

- Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found, e.g. laundries
- Maintained upright throughout use
- Replaced routinely and not be allowed to overfill.

When moving containers of contaminated sharps from the area of use, the containers will be:

- Closed immediately prior to removal or replacement to prevent spillage or protrusion of content during handling, storage, transport, or shipping.
- Placed in a secondary container if leakage is possible. The second container will be:
  - Closable
  - Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
  - Appropriately labeled or color-coded.

Reusable containers will not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of injury.

Regulated waste shall be placed in containers which are:

- Closable
- Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
- Appropriately labeled or color-coded.
- Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

If outside contamination of the regulated waste container occurs, it will be placed in a second container. The second container will be:

- Closable
- Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
- Appropriately labeled or color-coded.
- Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

Contaminated laundry will be handled as little as possible with a minimum of agitation. Contaminated laundry will be bagged or containerized at the location where it was used and will not be sorted or rinsed in the location of use.

Contaminated laundry will be placed and transported in bags or containers appropriately labeled or color-coded. When a department utilized universal precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with universal precautions.

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or containers, the laundry will be placed and

transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

The department will provide employees who have contact with contaminated laundry with protective gloves and other appropriate personal protective equipment.

When a department ships contaminated laundry off-site to a second facility which does not utilize universal precautions in the handling of all laundry, the department generating the contaminated laundry will place such laundry in bags or containers which are appropriately label or color-coded.

### **Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-Up**

The department will make available the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident. The department will ensure that all medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up; including prophylactics are:

- Made available at no cost to the employee
- Made available to the employee at a reasonable time and place
- Performed by or under the supervision of a licensed physician or under the supervision of another licensed Healthcare professional.
- Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place.

All diagnostic laboratory tests will be conducted by an accredited laboratory at no cost to the employee. The designated testing facility will manage post-exposure evaluation and follow-up protocol due to occupational exposure to bloodborne pathogens.

### **Hepatitis B**

A Hepatitis B vaccination will be made available after the employee has received the required training and within 10 working days of initial assignment to 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.

The department will not make participation in a prescreening program a prerequisite for receive Hepatitis B vaccination.

If the employee initially declines Hepatitis B vaccination but at a later date decides to accept the vaccination, the department will make available Hepatitis B vaccination at that time.

The department will require employees to decline to accept Hepatitis B vaccination offered by the department to sign the statement in Appendix ( ). The original signed statement will be maintained in the employee's permanent personnel file and

copies will be provided to the employee, the employee's department and the Safety Director.

If a routine booster dose(s) of Hepatitis B vaccine is recommended by the U.S. Public Health Services at a future date, such booster dose(s) will be available.

### **Post- Exposure Evaluation and Follow-Up**

Following a report of an exposure incident, the department will make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred.
- Identification and documentation of the source individual, unless the primary care provider can establish that identification is infeasible or prohibited by state or local law.
  1. The source individual's blood will be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infection. If consent is not obtained, an assigned medical facility will establish that legally required consent cannot be obtained. When the source individual's consent is required by law, the source individual's blood, if available, will be tested and the results documented.
  2. 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.
  3. 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 identify and infectious status of the source individual collection and testing of blood for HBV and HIV serological status.
  4. The exposed employee's blood will be collected as soon as feasible and tested after consent is obtained.
  5. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample will be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing will be done as soon as feasible.
  6. Post-exposure prophylactics, when medically indicated, as recommended by the U.S. Public Health Service
  7. Counseling
  8. Evaluation of reported illness.

### **Information Provided to the Healthcare Professional**

The primary care provider, designated by the University for workers' compensation, shall provide post-exposure evaluation vaccination, and follow-up for University employees. The department will provide the medical professional evaluating an employee after an occupational exposure incident of the following information:

- A description of the exposed employee's duties as they relate to the exposure incident.
- Documentation of the route(s) of exposure and circumstances under which exposure occurred.

Human Resources will be the only division made aware of the medical determination as found by the designated primary care physician.

The current primary care provider for the University is:

**Concentra Medical  
4410 Providence Lane  
Suite 1  
Winston-Salem, NC 27106  
(336) 896-9999 (M-F\*)**

\*Emergency care during other hours should be referred to the NCBH.

### **Healthcare Professionals Written Opinion**

Human Resources shall obtain and provide the employee with 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 shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

The Healthcare professional's written opinion of post-exposure evaluation and follow-up shall be limited to the following information:

- 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.
- That the employee has been informed of the results of the evaluation.

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

### **Medical Recordkeeping**

Human Resources will establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.20. The record shall include:

- The name and social security number of the employee
- A copy of the employee's Hepatitis B vaccination status including the dates of all the Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.
- A copy of all results of examinations, medical testing, and follow-up procedures required.
- The copy of information provided to the Healthcare professional as required.

Human Resources will ensure that employee medical records required are

- kept confidential
- are not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by the standard or as may be required by law.
- Human Resources will maintain the records required for at least the duration of employment plus thirty years in accordance with 29 CFR 1910.20.

### **Communication of Hazards to Employee**

Efforts directed at communicating hazards of bloodborne pathogens to University employees through the use of labels, signs, and information and training are intended to provide employees with adequate warning to eliminate or minimize their exposure. Labels and signs may be obtained through Environmental Health and Safety.

### **Information and Training**

All University employees with occupational exposure to blood or other potentially infectious materials will participate in a bloodborne pathogen information and training program which is provided at no cost to the employee and conducted during their normal working hours.

Training will be provided by the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter.

Employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, i.e., March 6, 1992, only need further training with respect to the provisions of the standard which were not included in previous training.

Annual training will be provided for all employees with occupational exposure within one year of their previous training. Employees will receive additional training when changes or modifications of tasks or procedures occur or when new tasks or procedure affect the employee's occupational exposure.

Material will be used that is appropriate in content and vocabulary to educational level, literacy, and language of employees undergoing the training program.

The training program will contain the following elements:

- An accessible copy of the regulatory text of the bloodborne pathogen standard and an explanation
- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of Wake Forest University's Exposure Control Plan and the means by which the employee can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.

- 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.
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
- An explanation of the basis for selection of personal protective equipment.
- Information on the Hepatitis B vaccine, including information on its efficiency, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge to the employee
- Information on appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- 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.
- Information of the post-exposure evaluation and follow-up that the department is required to provide for the employee following an exposure incident.
- An explanation of the signs and labels and/or color coding required by the standard.
- An opportunity for interactive questions and answers with the person conducting the training session.

Training will be conducted by individuals knowledgeable in the subject matter as it relates to the specific workplace being addressed.

### **Training Records**

Training records will include the following information:

- The dates of the training sessions.
- The contents or a summary of the training sessions
- The names and qualifications of persons conducting the training
- The names, social security number (optional), and job titles of all persons attending the training sessions.

All training records relative to the bloodborne pathogen standard will be maintained for a minimum of three years from the date on which the training occurred. It is the individual departments' responsibility to maintain all training records within their department. All training records required by this standard are eligible for auditing purposes, request for examination and copying to employees, and employee representatives

### **Labels**

Warning labels will be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials; and other containers used to store, transport, or ship blood or other potentially infectious materials. Labels and signs may be obtained through Wake Forest University Safety and Environmental Affairs. These labels conform to the requirements of 29 CFR 1910.1020 (g)(1)(I)(b) and provisions of labels does not include bags nor containers.

There are several exemptions to the labeling requirement:

- containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use do not need to be labeled in accordance with the provisions outlined in this section.
- individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal do not need to be labeled in accordance with the provisions outlined in this section.
- regulated waste that has been decontaminated does not need to be labeled
- red bags can be substituted for labels on bags or containers of regulated waste.

Labels will be affixed as close as feasible to the container by string, wire, adhesive or other method.

Contaminated equipment scheduled for maintenance or repair will be labeled in accordance with the provisions in this section and the label will also state which portions of the equipment remain contaminated.

**INFORMATION/CONSENT/DECLINATION  
HEPATITIS B VACCINATION PROGRAM  
FOR ELIGIBLE WFU FACULTY AND STAFF MEMBERS**

<b>Name:</b>	<b>Department/Title</b>
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**The Disease** - Hepatitis B is a viral infection caused by the Hepatitis B virus (HBV) which causes death in 1% to 2% of patients infected. Most people with Hepatitis B recover completely, but approximately 5% to 10% become chronic carriers of the virus. Most of these people have no symptoms but can continue to transmit the disease to others. Some may develop chronic Hepatitis or cirrhosis. Carriers face other problems, too. They run a high risk of developing primary liver cancer and pregnant carriers transmit the HBV through the placenta with some 90% of infected infants becoming carriers.

**Simple, Effective Solution** - Fortunately, now, there is a simple way to prevent HBV infection. The Centers for Disease Control (CDC) recommends vaccination for anyone frequently exposed to blood or other body fluids in the work place. If you fall into this category, the CDC says that 15% to 25% of these above specified employees will contract Hepatitis B during their careers. Your individual risk is directly related to how often you are exposed to blood and other body fluids.

**The Vaccine** - Hepatitis B vaccine (Recombinant) is a non-infectious subunit of the viral vaccine derived from Hepatitis B surface antigen (HBsAg) produced in yeast cells. A portion of the Hepatitis B virus gene, coding for HBsAg is cloned into yeast, and the vaccine for Hepatitis B is then produced from cultures of this recombinant yeast strain. The antigen is harvested and purified from fermentation cultures of a recombinant strain of a particular yeast containing the gene for the ADW subtype of the HBsAg. The vaccine against Hepatitis B is prepared from recombinant yeast cultures and is free of association with human blood or blood products.

**Follow-Up** - There is a minute percentage of people receiving the Hepatitis B vaccine who never develop antibodies against the disease for which the vaccine is intended. It is for this reason, to determine that group, if any, that we will need to do a ten-week follow-up blood study (Surface Antibody to Hepatitis B) to assess the status of your immunity to Hepatitis B once you have finished the series of Hepatitis B vaccine.

**Possible Adverse Side Effects** - The incidence of side effects is very low. No serious side effects have been reported with the vaccine. A few persons have experienced:

1. Soreness, swelling, warmth, itching, redness, bruising, and nodule formation at the injection site.
2. Fever ( $\pm 100^{\circ}\text{F}$ ) and malaise
3. Tiredness/weakness
4. Headache
5. Nausea and/or diarrhea
6. Sore throat and/or upper respiratory infection
7. Dizziness
8. Muscle aches
9. Joint pain

Have you completed (3 doses) of the Hepatitis B vaccine?	<b>Y</b>	<b>N</b>
If <b>YES</b> , complete the top portion of this form <b>ONLY</b> and return to your instructor.		
If <b>NO</b> , (after having read the information on the Hepatitis B vaccine above), fill out the <b>CONSENT FOR HEPATITIS B VACCINATION</b> <b>or</b> the <b>REFUSAL OF HEPATITIS B VACCINATION</b> portion on the back side of this form.		

**TO RECEIVE THE VACCINATION, COMPLETE THIS SECTION**

**CONSENT FOR HEPATITIS B VACCINATION**

Please Print

I have read the statement, on this form, about Hepatitis B and the Hepatitis B vaccine. I have had an opportunity to ask questions and understand the 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.

**Name of Person to Receive the Vaccine:** (PLEASE PRINT)

**Signature of Person To Receive the Vaccine:**

**Date:**

**TO DECLINE THE VACCINATION, COMPLETE THIS SECTION**

**REFUSAL OF HEPATITIS B VACCINATION**

Please Print

I have read the statement on this form about Hepatitis B and the Hepatitis B vaccine, and the DECLINATION STATEMENT below.

**DECLINATION STATEMENT:** 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 the Hepatitis B vaccine, at no charge to myself. However, I decline the 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 the Hepatitis B vaccine, I can receive the vaccination series at no charge to me. (FR Doc. 91-28886 Filed 12-2-91; 8:45 a.m.)

**Name of Person Declining the Vaccine:** (PLEASE PRINT)

**Signature of Person Declining the Vaccine:**

**Witness:**

**Date:**