**OSHA BLOODBORNE PAGTHOGENS EXPOSURE CONTROL PLAN**

v.07.2019

**For**

**Type Name of Departmfent/Section Here**

**At NC State University**

Date of last annual review: **Enter date of completion here**

The Model Exposure Control Plan is intended to serve as an administrative/supervisor guide to meeting regulatory requirements under the OSHA Bloodborne Pathogens (BBP) standard. The University Exposure Control Plan is maintained at Environmental Health & Safety by the Biosafety Officer.

Instructions:

There are three steps to completing the requirements of the BBP standard. The first is completing the blanks of this Exposure Control Plan (ECP), the second is a training requirement and the third is a Hepatitis B vaccination requirement. Completing the blanks of this ECP will help you determine how you will address the second and third steps. Each department and/or supervisor will need toadjust or adapt the model ECP for his or her specific use.

For assistance completing this form, contact the University Biosafety Officer at Environmental Health & Safety.

Contact Numbers

 Emergency: 911

 Questions regarding this document: **(Enter info of responsible person, supervisor, or department administrator)**

 Environmental, Health and Safety; Biosafety Officer: (919) 515-6858

Table of Contents

[REGULATION 2](#_Toc261895381)

[PROGRAM ADMINISTRATION 2](#_Toc261895382)

[EMPLOYEE EXPOSURE DETERMINATION 3](#_Toc261895383)

[EPIDEMIOLOGY 4](#_Toc261895384)

[METHODS OF IMPLEMENTATION AND CONTROL 5](#_Toc261895385)

[HEPATITIS B VACCINATION 9](#_Toc261895386)

[HEP B DECLINATION FORM 10](#_Toc261895387)

[POST‑EXPOSURE EVALUATION AND FOLLOW‑UP 11](#_Toc261895388)

[ADMINISTRATION OF POST‑EXPOSURE EVALUATION AND FOLLOW‑UP 14](#_Toc261895389)

[PROCEDURES FOR EVALUATING AN EXPOSURE INCIDENT 14](#_Toc261895390)

[EMPLOYEE TRAINING 15](#_Toc261895391)

[RECORDKEEPING 15](#_Toc261895392)

**REGULATION**

The Occupational Safety and Health Administration (OSHA) is a federal agency charged with enforcing health and safety legislation. OSHA makes sure that employers like NC State University keep you, the worker, safe from workplace hazards. Some jobs at NC State University are more likely to come into contact with hazards than others. The hazards we are concerned about in this document are germs called “bloodborne pathogens.” Spilled human blood and body fluids may contain bloodborne pathogens. So could materials or waste from certain laboratories. The germs are called bloodborne pathogens because they get into your blood (mostly by puncturing your skin) and make you sick. On March 6, 1992 OSHA created the Bloodborne Pathogen (BBP) Standard to make sure all employers try to keep their workers safe from bloodborne pathogens. A copy of the federal Bloodborne Pathogens Standard is available at the OSHA website: <http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051> or by contacting the EHS Biosafety Officer.

Employers prove to OSHA that they are following the Bloodborne Pathogens Standard by implementing an **Exposure Control Plan.** The Exposure Control Plan lists the steps the employer is taking to keep workers safe, that is, the ***plan*** to ***control*** every worker’s ***exposure*** to bloodborne pathogens. This document is the Exposure Control Plan for employees who are expected to have job-related exposures with bloodborne pathogens. All NC State University employees identified for occupational exposure must be familiar with their Exposure Control Plan, know its location and, as a condition of employment, comply with the Exposure Control Plan by completing bloodborne pathogens training every year and obtaining or declining the Hepatitis B vaccination.

For some NC State University workers, the potential for exposure to bloodborne pathogens may exist when encountering spilled blood or body fluids, or equipment or waste contaminated with human blood or body fluids. Some locations on campus are more likely than others to have contaminated equipment or materials, a fact that supervisors must remain vigilant of.

Employees that have been identified as having occupational exposure to human blood, body fluids, or other potentially infectious materials (OPIM)--as defined below--must comply with the procedures and work practices outlined in this ECP as a condition of employment.

# **PROGRAM ADMINISTRATION**

**(Enter name of responsible person, supervisor, or department administrator)** is (are) responsible for the implementation of this Exposure Control Plan (ECP). This individual will maintain, review, and update this ECP at least annually, to include new or modified tasks and procedures. This annual review must include a review of safer sharps devices (refer to the section on Engineering Controls). Contact information: **(Enter location/phone number/email)**.

**(Enter name of responsible person, supervisor, or department administrator)** will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., safer sharps devices, sharps containers), labels, and waste collection bags as required by the standard. This individual will ensure that adequate supplies are available in the appropriate sizes. Contact information: **(Enter location/phone number/email)**.

**(Enter name of responsible person, supervisor, or department administrator)** will be responsible for ensuring that all medical actions required are performed including testing of the source patient or source specimen if the source is identifiable. There is no cost to the source patient; testing of the source patient is billed to Workers’ Compensation under the employee claim. Contact information: **(Enter location/phone number/email)**. Employee health and OSHA records are maintained at EH&S or with the health care provider.

**(Enter name of responsible person, supervisor, or department administrator)** will be responsible for ensuring training is completed initially and annually thereafter, training is documented, and ensuring this written ECP is made available to employees and OSHA representatives at all times. Contact information: **(Enter location/phone number/email)** *.*

# **EMPLOYEE EXPOSURE DETERMINATION**

The status of occupational exposure to bloodborne pathogens according to the OSHA Standard (29 CFR 1910.1030) for all NC State University employees is identified and tracked according to job duties and/or location. Each determination must be made *without* regard to use of personal protective equipment. Some examples of duties that would be classified as having a reasonable anticipation of occupational exposure to blood or OPIM are:

* The employee works as part of a spill clean-up crew responsible for responding to emergencies or spills of human blood or other potentially infectious materials.
* The employee is expected to handle or otherwise manipulate the following items as part of their job duties:
1. Biohazard waste
2. Plumbing or sewage in human health care facilities
3. Lab equipment or materials labeled with the universal biohazard warning label or labeled with a waste bag bearing the biohazard warning symbol
* The job duties of employee require him/her to otherwise come into contact with blood or other potentially infectious materials.

The following is a list of **all** job classifications in our department/section in which employees have occupational exposure. Since not all the employees would be expected to incur exposure to blood or OPIM, specific tasks or procedures that would cause these employees to have occupational exposure must also be listed to understand clearly why these job classifications are considered to possibly have occupational exposure.

|  |  |  |
| --- | --- | --- |
| **Job Title** | **Department/Location** | **Task/Procedure** |
| Enter job title | Example: EH&S | Example: Handling biohazard waste |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |

Part‑time, temporary, contract and per diem employees are covered by the Bloodborne Pathogens Standard. How the provisions of the standard will be met for these employees is described here:

# **EPIDEMIOLOGY**

Simply put, epidemiology is the science of tracking the spread of disease among a population. The population of concern in this document is NC State University employees with occupational exposure as defined in the Employee Exposure Determination section above.

Many diseases are linked to bloodborne pathogens, but few bloodborne pathogens are frequently responsible for infections in the workplace. Important diseases associated with occupational exposure to bloodborne pathogens include hepatits and AIDS. Historically, work-related exposure incidents occur much more often in occupations that require direct contact with patient samples such as nurses handling needles to collect a blood sample. But instances have occurred where an infection was acquired while cleaning up a spill of potentially infectious material.

Other Potentially Infectious Material (OPIM) is defined as human body fluids capable of transmitting disease. These include: semen, vaginal secretions, saliva in dental procedures; any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; any unfixed tissue or organ (other than intact skin) from a human (living or dead); and 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.

Only workers with documented training in bloodborne pathogens should handle the clean-up of spills with human blood or OPIM. As part of this training, the worker should know some basic concepts about these diseases so that s/he can discuss them with a supervisor, family members, and a doctor.

Viral Hepatitis—“Hepatitis” means inflammation of the liver. Viral hepatitis is inflammation of the liver caused by a virus. Your liver helps your body digest food, store energy, and get rid of poisons. It acts as a filtration system for your body. As the filter begins to fail, impurities build up in your body and symptoms can occur such as jaundice (yellowing color of the skin and eyes), dark urine, extreme fatigue, anorexia, nausea, abdominal pain, and sometimes joint pain, rash, and fever.

There are at least five types of viral hepatitis and each one is caused by a different virus. Hepatitis B is caused by hepatitis B virus (HBV), and hepatitis C is caused by hepatitis C virus (HCV). In the United States, HBV and HCV are the most common types related to occupational exposure to bloodborne pathogens.

Most people do not die from HBV. There are cases where HBV can cause permanent liver damage. HBV can also cause liver cancer, which may lead to death, but good medical care can reduce this chance. HBV is passed by contact with the blood or other body fluids of someone who has the virus. The three main ways to get hepatitis B are: (1) having unprotected sex with someone who has hepatitis B; (2) being born to a mother who has hepatitis B; and (3) sharing needles and syringes with someone who has hepatitis B.

During normal workplace duties HBV and HCV are not a major concern. But we know that these viruses can be carried in infected human bodily fluids such as those defined under “Other Potentially Infectious Materials” in this document. And, if the Potentially Infectious Material contains enough of these viruses, they can get into your bloodstream and eventually cause Hepatitis. These viruses can enter the bloodstream if the fluids come into contact with an unprotected break in your skin such as an open wound, acne, rash, etc. or if you experience a splash into your eyes, nose, or mouth.

The hepatitis B virus takes about 2 months to show up in your blood. It may stay in your blood for months or years. Nine out of every 10 adults will get rid of the virus from their bodies after a few months. We say they have acute hepatitis B. One out of every 10 adults will never get rid of the virus from their bodies. We say they have chronic hepatitis B. They are called carriers.

Most people with chronic hepatitis B will remain carriers of the virus if they do not get treated. The best things carriers can do is make sure their babies get all of their hepatitis B shots, make sure they do not spread it to their sex partners, and get good medical care. A safe and effective vaccine to prevent hepatitis B has been available since 1982. In short, a vaccine enables your body to defend against the virus and fight it off before it can make you sick. See below for Hepatitis B vaccination requirements for Facilities Services workers.

Hepatitis C virus is the most frequently occurring bloodborne pathogen infection. At least 85 out of 100 people infected with HCV become chronically infected, and chronic liver disease develops in an average of 67 out of 100. HCV is most often transmitted by large or repeated percutaneous (skin puncture) exposures to blood, such as through the transfusion of blood or blood products from infected donors and sharing of contaminated needles among intravenous drug users. There is no vaccine to prevent hepatitis C.

Unlike Hepatits B and C, Hepatitis A is not a bloodborne pathogen. Instead, it is transmitted by the fecal oral route. It is mentioned here because many people in the USA (33 out of 100 people) have had Hepatitis A virus with the most common being school children and young adults. Infection with HAV is always acute; it is therefore much less severe than HBV or HCV. A vaccine is available for HAV. All prevention programs for NC State University employees should emphasize proper handwashing after working in bathrooms or other fecally-contaminated areas.

AIDS. HIV stands for human immunodeficiency virus. It is different from most other viruses because it attacks the immune system. The immune system gives our bodies the ability to fight infections. HIV is the virus that causes AIDS (acquired immunodeficiency syndrome), the final clinical stage of HIV infection. It can take years for a person infected with HIV, even without treatment, to reach this stage. Having AIDS means that the virus has weakened the immune system to the point at which the body has a difficult time fighting infections.

The only way to know whether you are infected is to be tested for HIV. You cannot rely on symptoms alone because many people who are infected with HIV do not have symptoms for many years. Someone can look and feel healthy but can still be infected. In fact, one quarter of the HIV-infected persons in the United States do not know that they are infected.

Once HIV enters the body, the body starts to produce antibodies—substances the immune system creates after infection. Most HIV tests look for these antibodies rather than the virus itself. There are many different kinds of HIV tests, including rapid tests and home test kits. All HIV tests approved by the US government are very good at detecting HIV.

HIV is a fragile virus. It cannot live for very long outside the body. As a result, the virus is not transmitted through day-to-day activities such as shaking hands, hugging, or a casual kiss. You cannot become infected from a toilet seat, drinking fountain, doorknob, dishes, drinking glasses, food, or pets. You also cannot get HIV from mosquitoes or other biting insects.

HIV can enter the bloodstream in a similar manner to HBV: if potentially infectious materials (like blood) come into contact with an unprotected break in your skin such as an open wound, acne, rash, etc. or if you experience a splash into your eyes and/or nose. The risk of getting an infection in this manner considerably less for HIV than for HBV infection. The occupational risk of acquiring HIV in this manner is 1 in 200 compared with 1 in 33 for HBV.

As a properly trained NC State University employee, when you handle any material that you suspect is infected with bloodborne pathogens, keep this information in mind. It will help you understand the importance of the following sections in this document.

# **METHODS OF IMPLEMENTATION AND CONTROL**

Universal Precautions

Universal precautions is an approach to infection control that has been used by emergency and medical professionals for years to prevent contact with blood or "other potentially infectious materials”. These professionals take Universal Precautions by safely handling all patients AS IF they are infectious for HIV, HBV, HCV, and other bloodborne pathogens. Universal Precautions is a simple approach toward protecting yourself on the job. With Universal Precautions, you wear PPE when you anticipate contact with any and all body fluids or anything with a biohazard label on it. The specific precautions necessary are described below.

Exposure Control Plan

Employees covered by the bloodbome 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 have an opportunity to review this plan at any time during their work shifts.

General Housekeeping Requirements

All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

A cleaning and decontamination schedule must be developed based on the type of contamination and the surfaces to be decontaminated. This schedule should include the frequency with which decontamination must be accomplished, such as immediately after a blood or body fluid release, once per shift, or after each procedure causing contamination of materials or surfaces. We will follow the cleaning and decontamination schedule below:

**Enter the cleaning and decontamination schedule here**

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, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible. This is accomplished and communicated by completing and posting the [EHS Equipment Hazards Clearance Form for Maintenance or Surplus](https://drive.google.com/file/d/0Bwfv9WVwZC73REVvM1NiQmRUNGc/view) with details disinfection practices. Post the form to convey this information to all affected employees, the servicing representative, and/or the manufacturer, as appropriate.

Blood or OPIM release or spills must be reported to the supervisor or appropriately trained cleaning staff and surfaces must be decontaminated immediately or per the pre-established cleaning schedule. If approved through EHS, decontamination may be accomplished by using sodium hypochlorite mixed with water in a 1:10 to 1:100 concentration. This must be mixed daily or immediately prior to use. Additionally other disinfectants may be used if approved by the EHS Biosafety Officer and used in accordance with the manufacturer’s instructions as follows:

**Enter alternative disinfectants or procedures, indicate See BUA, or indicate N/A if not applicable**

Engineering Controls

Engineering Controls specifically isolate or remove a hazard--such as a Bloodborne Pathogen hazard--from the workplace. Engineering Controls prevent or minimize exposure to bloodborne pathogens during job duties. Examples of engineering controls commonly used at NC State University include sharps disposal containers, safer needle devices, and biological safety cabinets (see [EHS website](https://drive.google.com/open?id=0B0zH_IZG0_wveGcwTHpmc3JHVlU) for further details).

The specific engineering controls used in my area are:

**For example: safer sharps devices, sharps disposal containers, spill clean-up kit, Biosafety Cabinet**

Sharps disposal containers are inspected and maintained or replaced by **Enter name of responsible person, supervisor, or department administrator**every **List frequency**orwhenever 3/4 full to prevent overfilling.

Safer Sharps Review

Annual review of safer sharps devices is a requirement of your Exposure Control Plan. Review the NC State [Sharps Precautions Fact Sheet](https://drive.google.com/file/d/1xHDssST7g4bVQLV3nQTz85dQdwMXU6OO/view) regarding use of sharps on campus. Use this CDC/NIOSH resource to review specific sharps devices: <https://www.cdc.gov/niosh/stopsticks/safersharpsdevices.html>. Use this CDC Device Evaluation Form and procedure to elicit feedback from employees: <https://www.cdc.gov/sharpssafety/a13.html> .

We have tried to find a safer device for the following procedure(s) and/or product(s): **Indicate which procedure(s) and/or product(s). Indicate N/A if not applicable.**

*(Select only the boxes that apply)*

[ ]  We have evaluated and chosen the following new safer medical device: **Device.**

[ ]  We have evaluated and determined that the device(s) availabel are not appropriate for the following reason(s):  **Provide explanation.**

Work Practice Controls

Work Practice Controls specifically reduce the likelihood of exposure by altering the manner in which a task is performed.

The specific Work Practice Controls used in my area are:

*(Select only the boxes that apply)*

[ ]  *Hand washing.* Hands are to be washed immediately or as soon as feasible after removal of gloves or other personal protective equipment. Use a utility or restroom sink for handwashing, do not use sinks in food preparation areas. If handwashing facilities are not immediately available use antiseptic hand cleanser and/or disposable wipes. Wash your hands as soon as handwashing facilities are available.

[ ]  *Sharps Precautions.*Disposing of sharps in the proper container helps keep others safe. Remember, any contaminated object that can penetrate the skin, including needles, scalpels and glass objects requires extra attention.

[ ]  *Contaminated needles.* Contaminated needles are not to be bent, broken, recapped, or removed from the syringe. If you have no way to tell if the needle is contaminated or not, use Universal Precautions: assume the needle is contaminated. Contaminated needles are to be placed in the designated sharps containers described above.

[ ]  *Broken glassware* which may be contaminated with human blood or OPIM must not be collected directly with the hands. Wear gloves and use tongs or a brush and dust pan. While small shards of contaminated broken glass can be placed into the sharps containers identified above, large contaminated broken glass items must be autoclaved separately in a hard-walled container according to the [NC State Laboratory Biosafety Manual](https://drive.google.com/open?id=0Bwfv9WVwZC73R3lRclA1RTlPSjQ). After autoclaving, the glass waste is no longer hazardous so it may now be disposed of in a cardboard box lined with a plastic bag, clearly labeled as "GLASS AND SHARPS”.

[ ]  *Prevent Ingestion.* Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited during duties where there is reasonable likelihood of occupational exposure to blood or other potentially infectious material.

[ ]  *Storage of food and drink* is prohibited in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.

[ ]  *Minimize Splashing*. Your technique is important. Germs can spread more readily when we cause splashing, spraying, spattering, and airborne droplets of blood or other potentially infectious materials. A good approach to cleaning a spill of material that minimizes spread by airborne droplets is to: (1) place paper towels over the spill site, and then (2) douse the area with disinfectant. This will reduce further splashing any potentially infectious material.

[ ]  *Prevent Specimen Leakage*. 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. 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. If 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 according to the requirements of this standard.

[ ]  *Labels*. Biohazard warning labels are posted when there is a chance that germs, including bloodborne pathogens, may be present. Common places these labels are found are on freezers, incubators, centrifuges, biological safety cabinets, waste containers, etc. which are used with blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials. According to OSHA, biohazardwarning labels must include the following legend: Universal Biohazard Symbol, and be fluorescent orange or orange-red with lettering or symbols in a contrasting color. Labels are affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal. In some cases, orange/red bags or orange/red containers may be substituted for labels, so be aware of these.

The following items will be labeled to indicate the need for Universal Precautions:

EQUIPMENT TO BE LABELLED

**Examples: Incubators, contaminated laundry, specimin transport containers, etc.**

**Enter name of responsible person, supervisor, or department administrator** will ensure warning labels are affixed or biowaste bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify this individual if they discover regulated waste containers, refrigerators containing blood or OPIM contaminated equipment, etc. without proper labels.

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (including uniforms) are not PPE. Whenever your duties create the potential for occupational exposure, personal protective equipment such as gloves and goggles for cleaning spills must be available and utilized. It is NC State University’s responsibility as an employer to provide PPE in the appropriate sizes that is readily accessible to your worksite or issued to you as a properly trained employee. The PPE is provided at no cost to the employee. If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) must be removed immediately or as soon as feasible.

All PPE must be removed and placed in a designated container (for storage, decontamination, or disposal) prior to leaving the spill or work area. PPE must not be worn outside of the spill or work area. Gloves must be removed prior to leaving. DO NOT wear gloves on elevators or use them to open doors or touch equipment (i.e. phones, computers) that others will be handling without gloves. Remember to wash your hands even after removing your gloves.

The types of PPE available to employees are:

**Examples are disposable gloves, reusable cleaning gloves, safety glasses, goggles, lab coats, etc.**

PPE is available at all times from **List location**and/or may be obtained from **Enter name of responsible person, supervisor, or department administrator** at **Enter contact information: email, phone, etc.**

 Used PPE may be disposed of in **List appropriate containers for storage, laundering, decontamination, or disposal and location**.

* 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.
* Disposable gloves are never washed or decontaminated for reuse.
* 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.
* 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: **List procedure here (e.g., how and where to decontaminate face shields, resuscitation equipment, etc.) or attach specific agency procedure and indicate "see attached"**

Waste Disposal

Improper disposal of waste at NC State University can result is severe fines and repercussions.

The procedure for handling sharps disposal containers is: **May refer to specific agency procedure by title or number and last date of review**

For all other biohazard waste, select all that apply:

[ ]  Biohazard waste (excluding sharps) is generated in a laboratory (research, clinical, and/or teaching) environment. Once the biohazard waste has been treated and validated accordign to the Laboratory Bisofaety Manual (see www.ncsu.edu/ehs), workers from the lab are to place it directly in the red dumpsters outside the building. Placement in these dumpsters indicates (1) the waste has been properly treated and, (2) the waste is ready for removal from campus.

[ ]  The procedure for collection and disposal of potentially contaminated waste is: **List procedure here or attach specific agency procedure and indicate "see attached"**

Laundry

Contaminated articles should never be taken home. This will minimize exposure of others to these same harmful agents. For information regarding laundry services and alternative options on campus for contaminated articles, refer to the information in the [Lab Coat Cleaning and Disposal guide on the EHS website](https://drive.google.com/open?id=0B36FhbUXVzebbHdCZzZjS2ZVMGM).

If articles become contaminated (*select all that apply*):

[ ]  Laundering is not available, the article will be bagged and disposed of as biohazard waste by contacting EH&S.

[ ]  Laundering is not available, the article will be treated at the university by autoclave steam sterilization using a University approved validation method prior to reuse or disposal.

[ ]  Laundering is not available, the article will be treated using the following OSHA approved EPA registered disinfectant (see <http://www.epa.gov/oppad001/chemregindex.htm> ) and contact time prior to reuse or disposal:

 **Provide disinfectant name, concentration if diluted, and contact time**

[ ]  Laundering services are available and performed by **Provide name of contracting company**. The collection site and time is **Provide location and time** or by contacting **Provide contact info or indicate N/A if Not Applicable**.

The following laundering requirements must be met:

* handle contaminated articles as little as possible, with minimal agitation;
* place wet contaminated laundry in leak‑proof, labeled or color‑coded containers before transport. Use bags properly marked with the biohazard symbol for this purpose; and
* wear the following PPE when handling and/or sorting contaminated laundry: **List appropriate PPE**.

# **HEPATITIS B VACCINATION**

If you have never had Hepatitis B virus (HBV), you can get a vaccination to prevent it. Usually, one vaccine is effective against only one type of virus, such as HBV. The HBV vaccine has been available since 1982 and is appropriate for all age groups.

NC State University must offer the the HBV vaccination to all employees who have occupational exposure to bloodborne pathogens. Occupational exposure for employees is described in this document under the section heading Employee Exposure Determination (above). Refer to that section to determine if your job duties are likely to cause contact with skin, eyes, nose, or mouth or other parenteral contact (cuts or sticks through the skin) with blood or other potentially infectious materials.

Employees may decline to accept HBV vaccination; however, they must sign the declination statement on the form provided by Student Health Services. A copy of this form is attached. If you decline the vaccination, you can be vaccinated at a later date, at no cost to the employee, if you decide that you want to.

The HBV vaccination involves a series of three injections: (1) your initial visit; (2) the second administered one month later; and (3) the third administered six months following the second injection. If an employee terminates his/her employment before finishing all three injections, the University is not responsible for providing the remaining injections. The employee is responsible for completing the series, if desired.

**Procedures for Requesting a Vaccination.** Many employees who have occupational exposures as identified in this document under the section heading Employee Exposure Determination (above) obtain their vaccine through the Student Health Center (see [Exam Request Form](https://drive.google.com/open?id=0B0zH_IZG0_wva2dyRllaaFRkUHc)). Others may be referred elsewhere.

Vaccination will be provided by**Enter health care professional or clinic name** at **Enter location***,* **Enter contact information (phone, etc.)***.*

Often, the employee is to call to schedule the first appointment. The health care facility will schedule subsequent appointments to complete the vaccination series. Be sure and let your supervisor know.

More information regarding the Medical Surveillance Program coordinated between EHS and Student Health Services is avaiable from the EHS website at <https://ehs.ncsu.edu/health-safety/occupational-health/medical-surveillance/>.

OCCUPATIONAL MEDICINE PROGRAM

# HEP B DECLINATION FORM

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis 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 may 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 not charge to me.

EMPLOYEE NAME (print)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of birth\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

EMPLOYEE SIGNATURE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DEPARTMENT\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

JOB TITLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SUPERVISOR (print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SUPERVISOR’S SIGNATURE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**This form is sent to:**

**Occupational Medicine Program Coordinator**

**Student Health Services**

**Campus Box 7304**

**Raleigh, N.C. 27695**

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

An important part of this training program is to make sure all employees know (1) if they have an exposure incident and (2) what to do after they have an exposure incident. An exposure incident could happen three ways:

1. When human blood or other potentially infectious material (OPIM) get onto an unprotected break in your skin such as an open wound, acne, rash, etc.; or
2. When human blood or OPIM splashes or otherwise gets into your eyes, nose, or mouth; or
3. If you are cut or stuck by an object (it must break the skin) that is contaminated with human blood or OPIM.

Steps – On Raleigh Campus

1. Wash the injured/exposed area thoroughly for at least five minutes with soap and water and/or flush eyes or mucous membranes immediately. Allow the wound to bleed freely for a minute. Apply sterile gauze or bandage if necessary.
2. Dial 911 from a campus phone or Dial 919-515-3000 from a cell phone to speak with NC State University Emergency Personnel for directons on transportation to Rx Urgent Care. Indicate that you were injured and/or exposed to human blood.
3. Notify your supervisor and report for medical care within two hours. **Provide supervisor contact info here or "N/A" if On Raleigh Campus does not apply**
4. Student employees report to [Student Health Services](https://healthypack.dasa.ncsu.edu/about/). If Student Health Services is closed, follow the steps below for all other employees.
5. All non-student workers (or if Student Health is closed) take the [Supervisor’s Medical Treatment Authorization Form](https://hr.ncsu.edu/wp-content/uploads/2017/06/supervisors-medical-treatment-authorization.pdf) with you. Click the link for the form or print a copy of this form that is located in this section of the document.
6. If the exposure occurs Monday – Friday: 8 a.m – 8 p.m. or Saturday/Sunday 9 a.m. – 3 p.m. report to:
	* Rx Urgent Care

3100 Blue Ridge Road, Raleigh, NC

(919) 719-2250

1. If the exposure occurs when Rx Urgent Care is closed, or Rx Urgent Care will not open within 2 hours, report to:
	* Rex Hospital Emergency Department

4420 Lake Boone Trail, Raleigh, NC

(919) 784-3100

1. Employees reporting to Rex Hospital Emergency Room must also report to Rx Urgent Care the next day at 8 a.m. Monday-Friday or at 9 a.m. on Saturday/Sunday and complete paperwork to have medical records transferred to Rx Urgent Care.
2. If possible take information about the source of your exposure with you. If possible bring the source individual with you.
3. Workers Compensation forms will need to be completed within 24 hours of exposure.

Steps – Off Raleigh Campus

1. Wash the injured/exposed area thoroughly for at least five minutes with soap and water and/or flush eyes or mucous membranes immediately. Allow the wound to bleed freely for a minute. Apply sterile gauze or bandage if necessary.
2. Proceed to hospital emergency room or outpatient clinic within two hours.
3. Take the [Supervisor’s Medical Treatment Authorization Form](https://hr.ncsu.edu/wp-content/uploads/2017/06/supervisors-medical-treatment-authorization.pdf) with you. Click the link for the form or print a copy of this form that is located in this section of the document. Indicate that you were injured and/or exposed to human blood.
4. Dial 919-515-3000 to speak with NC State University Emergency Personnel to report the exposure. Indicate that you were injured and/or exposed to human blood.
5. Notify your supervisor. **Provide supervisor contact info here or "N/A" if Off Raleigh Campus does not apply**
6. Employees must also contact Rx Urgent Care the next day at 8 a.m. Monday-Friday or at 9 a.m. on Saturday/Sunday. Dial 919-719-2250 to speak with the clinician on call for assessment. Indicate that you were injured and/or exposed to human blood as an employee of NC State University.
7. If possible take information about the source of your exposure with you. If possible bring the source individual with you.
8. Workers Compensation forms need to be completed within 24 hours of exposure.

**BBP Medical Alert Cards.** EHS has developed Bloodborne Pathogens Medical Alert Cards to print and place in your purse, pocket, or wallet. The cards list exposure response steps and provide the phone numbers listed on the previous page. These cards may be downloaded from the EHS Bloodborne Pathogens website at [go.ncsu.edu/bbp](https://ehs.ncsu.edu/home-page-info/biological/bloodborne-pathogens/) .

**Billing.** The employee is not billed for these services because they happened during the course of normal job duties. The source patient (if known) also is not billed for testing. Charges for emergency and follow-up services will be billed to EHS and paid from the University's workers' compensation account.

**Medical Records**. Medical records will be kept in confidentiality. Records are not disclosed or reported to supervisors without the employee's express written consent to any person within or outside the workplace except as may be required by law. Employee medical records are kept for at least the duration of employment plus 30 years at the clinic where the employee was treated.





# **ADMINISTRATION OF POST‑EXPOSURE EVALUATION AND FOLLOW‑UP**

After the initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), it is the duty of the supervisor to ensure the following activities are performed.

* Document the routes of exposure and how the exposure occurred.
* Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law) or source sample.
* 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.
* 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).
* After obtaining consent collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV, serological status
* 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.

**NC State University Benefits and Leave Administration (919-515-2151)** 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 bloodbome pathogens standard.

**Enter name of responsible person, supervisor, or department administrator** 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 of exposure
* if possible, results of the source individual's or sample’s blood test
* relevant employee medical records, including vaccination status

**NC State University Benefits and Leave Administration (919-515-2151)** provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

# **PROCEDURES FOR EVALUATING AN EXPOSURE INCIDENT**

**Enter name of responsible person, supervisor, or department administrator** 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 *(lab bench, patient room, locker room, etc)*

• procedure being performed when the incident occurred

• employee's training

 If it is determined that revisions need to be made, **Enter name of responsible person, supervisor, or department administrator** will ensure that appropriate changes are made to this ECP and that the up-to-date version is available to employees*.*

# **EMPLOYEE TRAINING**

Finally, the OSHA Bloodborne Pathogens Standard requires that all the information of the Exposure Control Plan be provided to all employees with occupational exposure within 10 days of hire and annually thereafter. This initial and annual training requirement is, therefore, a condition for employment for all employees with occupational exposures.

Bloodborne Pathogen training is provided online for NC State workers on Raleigh campus through the EHS safety training website at https://ehs.ncsu.edu/training/ . Select Bloodborne Pathogens Training from the list under Biological Safety. Follow the Recordkeeping section below to maintain your documents for training completion.

If training arrangements alternative to the online module need to be made, **Enter name of responsible person, supervisor, or department administrator** at **Enter contact information: email, phone, etc.** will ensure these are scheduled annually or as appropriate. **Enter information about alternatives used, if not applicable type N/A**

Because the online and in-class training is general, each should be followed-up by having an experienced person in the work area (not the last new person!) provide specific guidance for that location.

The minimum training requirements for a Bloodborne Pathogens training program are:

* an explanation of the epidemiology, symptoms, and transmission of bloodbome pathogen diseases;
* workers are provided an explanation of the ECP, the BBP standard and how to obtain copies;
* an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident;
* an explanation of the use and limitations of engineering controls, work practices, and PPE;
* an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE;
* an explanation of 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;
* information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM ;
* 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 on the post‑exposure evaluation and follow‑up that the employer 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 and used at this facility ;
* an opportunity for interactive questions and answers with the person conducting the training session.

# **RECORDKEEPING**

Training records are maintained in the REPORTER system for each employee completing Bloodborne Pathogens training whether taken online or in-person (when provided by EHS). Upon successful completion of the online exam, an email confirmation is sent to the email address provided by the participant. Participants may also log-on to REPORTER and print a list of their training completions.

Training records should include:

• the dates of the training sessions

• the contents or exam summary of the training sessions

• the names and qualifications of persons conducting the training if not conducted through EHS

• the names and job titles of all persons attending the training sessions

*Other info:*