

## **12.0 BLOOD BORNE PATHOGENS**

### **12.1 General Information**

Blood borne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people. Although any University employee has some exposure to blood borne pathogens, those who are most likely to come in contact with them are:

- Janitorial and Custodial Workers (including Facility Management, Student Union, and Housing)
- University Police Officers
- Student Health Services Personnel
- New Iberia Research Center Personnel
- Facility Management Plumbing Maintenance Workers
- Facility Management Emergency Student Maintenance Workers
- Athletics training support staff
- Some Marine Survival Training staff

There are occupational risks from blood borne pathogens that may exist for employees who come into contact with bodily fluids. Therefore, the UL Lafayette EH&S department is responsible for training these employees on Blood Borne Pathogens and the proper way to protect employees from them. This training shall be specifically catered to each job task listed in this section.

### **12.2 Blood Borne Pathogen Policy**

Persons who are employed in any of the areas listed in section 12.1 must receive training on blood borne pathogens, and at least once yearly thereafter. However, BBP awareness information is provided to all employees at least once every 5 years through a safety meeting. Training for this shall be administered by the EH&S office. However, these persons may receive blood borne pathogen training from other sources.

The following procedures apply to the university's blood borne pathogen program:

- New employees whose job description exposes them to blood borne pathogens are required to attend training preferably within 3 months of employment and at least once yearly thereafter.
- Supervisors are required to ensure that these employees receive this training and that they understand the hazards associated with blood borne pathogens.

- Follow-up or refresher training may be necessary if an employee's conduct warrants this.
- During the blood borne pathogen training session, the following topics shall be covered (see section 12.3):
  - ✓ Exposure determination and medical evaluation
  - ✓ A description of Hepatitis B and HIV viruses
  - ✓ The hazards of working around bodily fluids
  - ✓ Universal precautions for the prevention of blood borne pathogens exposure
  - ✓ Procedures for persons who are exposed directly and indirectly including engineering controls and work practice controls.
  - ✓ Decontamination procedures for equipment and objects
- The EH&S office shall develop this training in accordance with guidelines from ORM.
- The EH&S director shall maintain all documentation associated with the blood borne pathogen program including these procedures, training information, and training attendance records.

### **12.3 Blood Borne Pathogen Training Information**

*Note: This information shall be provided to every employee required to attend blood borne pathogen training as defined in section 12.1 of the EH&S Policy.*

#### ***Lesson 1: What are blood borne pathogens and how do they concern me?***

Blood borne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people. Certain employees may be exposed to these and other blood borne pathogens as part of their regular job duties. Therefore, it is important that these people understand how to protect themselves from blood borne pathogens.

#### ***Lesson 2: What should I know about blood borne pathogens?***

Although many exist, the Hepatitis B Virus (HBV) and the Human Immunodeficiency Virus (HIV) are the two most dangerous blood borne pathogens that university employees may be exposed to. The following paragraphs describe specific information on each of these blood borne pathogens.

### **Hepatitis B Virus (HBV)**

The Hepatitis B Virus is one that causes the infection and inflammation of the liver. Medical symptoms that occur from this virus, in extreme cases, can persist for the lifetime of the carrier. The Hepatitis B Virus can be transmitted by sexual contact, blood-to-blood contact, prenatal contact, and contaminated bodily fluids. The Hepatitis B Virus has an incubation period of 45 to 180 days depending on environmental conditions. *This means that bodily fluids containing Hepatitis B can remain infectious for up to six months.* However, HBV usually cannot survive in dried blood for more than 7 days.

### **Human Immunodeficiency Virus (HIV)**

The Human Immunodeficiency Virus is one that attacks the body's immune system, weakening it so that it cannot fight other deadly diseases. Acquired Immune Deficiency Syndrome (AIDS) is a fatal disease that is caused by HIV. HIV is primarily transmitted through blood-to-blood contact, but can also be transmitted through sexual contact. HIV is very fragile and will not survive long outside of the human body. A person can be infected with HIV for years before AIDS develops. In some cases, HIV can lay dormant in the human body and that person may never develop AIDS.

### ***Lesson 3: How can blood borne pathogens get into my body?***

Unbroken skin forms an impervious barrier against blood borne pathogens. However, infected blood can enter your system through things like:

- Open sores
- Cuts
- Abrasions
- Mucous Membranes – eyes, nose, and mouth
- Acne
- Blisters
- Sunburn

### **Lesson 4: What are the universal precautions for the prevention of contact with blood borne pathogens?**

The answer to this question can be given with two statements.

1. Treat all bodily fluids and materials or objects that contact body fluids as if they contain something harmful.
2. Always use personal protective equipment (PPE) and precautions when working with materials or objects that contact body fluids.

### **Lesson 5: How do I use PPE to prevent contracting blood borne pathogens?**

## **Gloves**

- Gloves are the most useful PPE against blood borne pathogens.
- Gloves should be made of Latex, Nitrile, or rubber.
- All gloves worn by custodial persons shall be disposable.
- Inspect gloves for holes before using them.
- Any cuts or sores on a person's hand should be bandaged before using gloves.
- Do not touch the outside of used gloves when removing them.
- Wash you hands thoroughly after removing gloves.

## **Other PPE**

- Depending on the particular job tasks, employees may have to use:
  - ✓ Eye Goggles
  - ✓ Face Shields
  - ✓ Laboratory Aprons
- Contact your supervisor or the EH & S office if you think your job requires this PPE.
- Blood Borne Pathogen clean up kits are available for custodial personnel to address significant bodily fluid spills.

## **Lesson 6: What else can I do as a precaution against blood borne pathogens?**

- Receive Pre-Exposure Medical Services from the Student Health Services Department (see section 12.4)
- Remember to wash you hands with soap after removing gloves.
- If you are working in an area that may contain blood borne pathogens, you should never:
  - ✘ Eat
  - ✘ Drink
  - ✘ Smoke
  - ✘ Apply Cosmetics
  - ✘ Handle Contact Lenses
- Do not handle sharp objects or broken glass with your bare hands. Use a push stick to compact trash before removing the bags.

## ***Lesson 7: What do I do if I'm injured while working in areas that may contain blood borne pathogens?***

If you injury yourself, and that injury draws blood or otherwise opens the skin:

- Wash your hands thoroughly with soap and water.
- Report this injury to your supervisor.

- Spill control kits are available to assist in cleaning up significant spills involving bodily fluids.

### **Lesson 8: How do I disinfect materials or objects from blood borne pathogens?**

- Clothing contaminated with unknown blood should be discarded and not reused.
- Mix a solution of household bleach diluted 1:10 with water for general decontamination.
- Do not use this decontamination solution for more than 24 hours.

### **12.4 Pre-Exposure Medical Services – Hepatitis Vaccinations**

University employees listed in section 12.1 will be given an opportunity to receive, at no charge to themselves, Hepatitis vaccinations administered under the Student Health Services (SHS) department. Where applicable, the following procedures will be followed for these persons:

## **Hepatitis Vaccination Standard Operating Procedures**

*Revised February 2009*

### **General**

The information in this document is pursuant to 29CFR 1910.1030 (entitled “The Bloodborne Pathogen Standard”), the Environmental Health and Safety Policy, and other University Policies where applicable. The University recognizes that it must protect its employees from all occupational hazards, including Bloodborne Pathogens. To do this, the University will:

- Identify employees that may have exposure to Bloodborne Pathogens, including any pre-employment exposure.
- Train and re-train these employees on the nature of these hazards, protective measures, work place controls, waste disposal, and other topics as they pertain to this issue.
- Provide an opportunity to vaccinate these employees against Hepatitis at not cost.

Thus, the University will reduce the risk associated with these exposures. The purpose of this document is to establish a standard operating procedure for administering Hepatitis vaccinations.

### **Applicability**

This procedure applies to the following full time University positions (unclassified and classified):

Facility management Department: Custodian I, Custodian II, Custodian Supervisor I, Custodian Supervisor II, Custodian Manager, Maintenance Repairer II, Plumber, Plumber Master, Piper Fitter, Pipe Fitter Foreman

University Police Department: Police Chief, Police Captain, Police Lieutenant, Police Sergeant, Police Officer I, Police Officer II, Police Officer III

Marine Survival Training Center: MSTC Director, Maintenance Repairer II, Custodian II, Teaching Associates

Student Aquatic Center (Intramurals): Associate Director, Recreational Sports

Student Union Department: Student Union Assistant Director, Custodian Supervisor, Assistant Supervisor, Custodian I

Athletics Department: Director of Athletics, Associate Director of Athletics, Assistant Director of Athletics.

This procedure also applies to the following student worker positions:

Facility management Department: Student Emergency Maintenance Worker

University Police Department: Student Police Officer

Student Aquatic Center (Intramurals): Student Lifeguard

Marine Survival Training Center: MSTC Lifeguard

Athletics Department: Student Athletic Trainer

### **Procedure, Full Time Employees**

1. Upon hiring an employee for an applicable position, the Director of Human Resources (or designee) shall present to the employee an *Acknowledgement of Exposure to Bloodborne Pathogens Form*. The employee shall, in the presence of a Human Resources Department representative, read and sign this document.
2. The Director of Human Resources (or designee) shall direct the employee to schedule an initial consultation with the Student Health Services (SHS) Department within five (5) working days of hire.
3. The SHS department shall follow its internal procedure to include, where applicable, a pre-exposure blood analysis, three (3) vaccination injections, and a post-vaccination blood analysis.
4. The employee's supervisor shall allow sufficient time to ensure that the employee reports to all necessary SHS appointments.
5. The Human Resources Director (or designee) shall provide to SHS a weekly list of all applicable employees hired for accounting purposes.

### **Procedure, Student Employees**

1. Upon hiring a student employee for an applicable position, the Director of Financial Aid (or designee) shall present to the employee an *Acknowledgement of Exposure to Bloodborne Pathogens Form*. The employee shall, in the presence of a Financial Aid Department representative, read and sign this document.
2. The Director of Financial Aid (or designee) shall direct the employee to schedule an initial consultation with the Student Health Services (SHS) Department within Five (5) working days of hire.
3. The SHS department shall follow its internal procedure to include, where applicable, a pre-exposure blood analysis, three (3) vaccination injections, and a post-vaccination blood analysis.
4. The employee's supervisor shall allow sufficient time to ensure that the employee reports to all necessary SHS appointments.
5. The Human Resources Director (or designee) shall provide to SHS a weekly list of all applicable employees hired for accounting purposes.

## Acknowledgement of Exposure to Bloodborne Pathogens

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Department: \_\_\_\_\_

This is to inform you that the scope of your employment at the University of Louisiana at Lafayette may expose you to bloodborne pathogens as described in 20CFR1910.1030. To minimize the risk of this exposure, **the University is requiring you to report to the Student Health Services department within five (5) days of this letter for a consultation.** The University will offer as appropriate, at no cost to you, vaccination against Hepatitis. The University will also train you to understand this workplace hazard and protect yourself from it.

I, \_\_\_\_\_ acknowledge that I have read (or have been read) the above information and understand its content. Failure to follow the requirements of this letter may result in disciplinary action including termination of my employment with the University.

Signed: \_\_\_\_\_



Plumbing personnel and Emergency Student Maintenance Workers will receive vaccination for both Hepatitis A and Hepatitis B. All other affected personnel will receive only Hepatitis B vaccinations.

## 12.5 Meningitis

Although the probability of contracting Bacterial Meningitis for all persons is relatively low, the Center For Disease Control (CDC) advises that there is a higher incidence of meningitis in young adults, particularly college-aged adults that live in close quarters. The University has formal procedures for preparing for and responding to a meningitis outbreak (see section 13). The following is some general information on meningitis:

### What is meningitis?

Meningitis is an inflammation of the linings of the brain & spinal cord caused by either viruses or bacteria.

*Viral meningitis* is more common than *bacterial meningitis* & usually occurs in late spring & early summer. Signs & symptoms of *viral meningitis* may include stiff neck, headache, nausea, vomiting, & rash. Most cases of viral meningitis run a short, uneventful course. Since the causative agent is a virus, antibiotics are not effective. Persons who have had contact with a person with viral meningitis do not require any treatment.

*Bacterial meningitis* occurs rarely & sporadically throughout the year, although outbreaks tend to occur in late winter & early spring. Bacterial meningitis in college-aged students is most likely caused by *Neisseria meningitidis* or *Streptococcus pneumoniae*. Meningococcal meningitis can cause grave illness & rapidly progress to death; early diagnosis & treatment are imperative. In contrast to viral meningitis, a person who has had intimate contact with a case requires prophylactic therapy. Untreated meningococcal disease can be fatal.

### How does meningococcal disease occur?

Approximately 10% of the general population carry meningococcal bacteria in the nose & throat in a harmless state. This carrier state may last for days or months before spontaneously disappearing, & it seems to give persons who harbor the bacteria in their upper respiratory tracts some protection from developing meningococcal disease.

During meningococcal disease outbreaks, the percentage of people carrying the bacteria may approach 95%, yet the percentage of people who develop meningococcal disease is less than 1%. This low occurrence of disease following exposure suggests that a person's own immune system, in addition to bacterial factors, plays a key role in disease development.

Meningococcal bacteria cannot usually live for more than a few minutes outside the body. As a result, they are not easily transmitted in water supplies, swimming pools, or by routine contact with an infected person in a classroom, dining room, bar, rest room, etc.

Roommates, friends, spouses, & children who have had *intimate contact* with the oral secretions of a person diagnosed with meningococcal disease are **at risk** for contracting the disease & should receive prophylactic medication immediately. Examples of such

contact include kissing, sharing eating utensils, & being exposed to droplet contamination from the nose or throat.

### **How many cases of meningococcal disease occur each year?**

The annual incidence of meningococcal disease in the U.S. is about 1 case per 100,000 population. The case fatality rate is approximately 12%.

### **Can meningococcal disease be mistaken for other health problems?**

Meningococcal disease is potentially dangerous because it is relatively rare & can be mistaken for other conditions. The possibility of having meningitis may not be considered by someone who feels ill, & early signs and symptoms may be ignored. A person may have symptoms suggestive of a minor cold or flu for a few days before experiencing a rapid progression to severe meningococcal disease.

### **What are the signs & symptoms of meningococcal disease?**

Understanding the characteristic signs & symptoms of meningococcal disease is critical & possibly lifesaving. Common early symptoms of meningococcal meningitis include fever, severe sudden headache accompanied by mental changes (malaise, lethargy), and neck stiffness.

A rash may begin as a flat, red eruption, mainly on the arms & legs. It may then evolve into a rash of small dots that do not change with pressure (petechiae). New petechiae can form rapidly, even while the patient is being examined.

### **What is the treatment for meningococcal disease exposure?**

**Treatment of infected persons:** Meningococcal disease can become rapidly progressive within hours of onset of the symptoms. With early diagnosis & treatment, however, the likelihood of full recovery is increased. Early recognition, performance of a lumbar puncture (spinal tap) & prompt initiation of antimicrobial therapy are crucial.

**Chemoprophylaxis:** The use of such prophylactic antibiotics as Ciprofloxacin, Rifampin or Rocephin is recommended for those who may have been exposed to a person diagnosed with meningococcal disease. and is considered **at risk**. These antibiotics kills or eliminates the bacteria in the **at risk** person's nose and throat, thereby preventing them from passing the disease or becoming ill. Anyone who suspects possible exposure should consult a physician immediately to determine their **risk status**. Prophylactic antibiotics may also be prescribed for asymptomatic meningococcus carriers. A bacterial culture taken from the nose is required for confirmation of *N. meningitidis* carrier status.

**Vaccination:** As an adjunct to appropriate antibiotic chemoprophylaxis, immunization against the meningococcus bacterium may be recommended when an outbreak of meningococcal disease has occurred in a community. It is important to note that meningococcal vaccine should not be used in place of chemoprophylaxis for those exposed to an infected person; the protection from immunization begins within 7 to 10 days and is too slowly generated in this situation.

## **Meningococcal Meningitis Vaccine**

Immunization against the bacterium *N. meningitidis* may be recommended for persons over 2 yrs. of age if they are members of a population that is experiencing an outbreak of meningococcal disease, e.g., students at a university where an outbreak has occurred.

Numerous studies have demonstrated the immunogenicity & clinical efficacy of meningococcal vaccines. Although protection probably lasts for 3 years in school children & adults, the exact timing for a booster has not been determined. As with any vaccine, vaccination may not protect 100% of all susceptible individuals. Contact your university health center to determine if vaccination is appropriate for you.

Adverse reactions to meningococcal vaccine are mild & infrequent, consisting primarily of redness & pain at the injection site that may last 1-2 days. Rarely, fever of short duration may occur.

Although there is no public health recommendation for universal immunization at this time, there are special situations, such as travel abroad, where it may be indicated.

### **How can one reduce the risk of contracting meningococcal disease?**

Maximize your body's own immune system response. A lifestyle that includes a balanced diet, adequate sleep, appropriate exercise, & the avoidance of excessive stress is very important. Avoiding upper respiratory tract infections & inhalation of cigarette smoke may help to protect from invasive disease. Everyone should be sensitive to public health measures that decrease exposure to oral secretions, such as, covering one's mouth when coughing or sneezing & washing hands after contact with oral secretions.

## **12.6 Pandemic Flu**

In response to the American College Health Association (ACHA) and the Centers for Disease Control and Prevention (CDC), the University has formulated an extensive plan for responding to a pandemic. For details on this plan, please refer to section 13 of the EH&S Policy. Included in this plan is awareness training for influenza, pandemics and terminology, general health advice, and tips for employees to prepare for a pandemic at home. All employees will receive this awareness training. The following information is entitled "UL Lafayette General Pandemic Guide" and is given and discussed with employees during this training:

## UL Lafayette GENERAL PANDEMIC GUIDE

	<b>Seasonal (common) Flu</b>	<b>Avian (bird) Flu</b>
<b>Caused by:</b>	• Human influenza virus	• Bird influenza virus
<b>Transmitted:</b>	• From person to person problems domestic fowl	• From bird to bird - Mild strain – common, few  - Severe strain (H5N1) – deadly to  • From bird to human
<b>Immunity:</b>	• Most people have some immunity • Vaccine is available	• No human immunity • Vaccine being developed

**Pandemic flu** would describe a new human virus that:

- Is easily spread throughout the world
- Would have little or no natural immunity
- Would not have a vaccine available

STAY INFORMED:

- News
- Websites: [www.safety.louisiana.edu](http://www.safety.louisiana.edu) [www.pandemicflu.gov](http://www.pandemicflu.gov)
- Hotlines: 1-337-482-2222 1-800-232-4636 (CDC-INFO)

STAY HEALTHY:

**Take common-sense steps to limit the spread of germs. Make good hygiene a habit:**

- Wash hands frequently with soap and water or an alcohol-based hand cleaner.
- Cover your mouth and nose with a tissue when you cough or sneeze.
- Put used tissues in a waste basket.
- Cough or sneeze into your upper sleeve if you don't have a tissue.
- Stay at home if you are sick.
- Get an annual flu shot to help protect you from seasonal flu. No, it won't protect you against pandemic influenza. But flu shots can help you to stay healthy.
- Get a pneumonia shot to prevent secondary infection if you are over the age of 65 or have a chronic illness such as diabetes or asthma.

**It is always a good idea to practice good health habits.**

- Eat a balanced diet. Be sure to eat a variety of foods, including plenty of vegetables, fruits, and whole grain products. Also include low-fat dairy

products, lean meats, poultry, fish, and beans. Drink lots of water and go easy on salt, sugar, alcohol, and saturated fat.

- Exercise on a regular basis and get plenty of rest.

#### **BE PREPARED:**

- You should begin preparations for an influenza pandemic now.
- You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family.
- The following checklists will help you gather the information and resources you may need in case of a flu pandemic.

#### **To plan for a pandemic:**

- Store a two week supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.
- Periodically check your regular prescription drugs to ensure a continuous supply in your home.
- Have any nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
- Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.
- Volunteer with local groups to prepare and assist with emergency response.
- Get involved in your community as it works to prepare for an influenza pandemic.

**To limit the spread of germs and prevent infection,** practice and teach your children:

- To wash hands frequently with soap and water.
- To cover coughs and sneezes with tissues or upper sleeve.
- To stay away from others as much as possible if they are sick.
- Stay home from work and school if you are sick.

#### **Items to have on hand for an extended stay at home:**

##### **Food and non perishables:**

- Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups
- Protein or fruit bars
- Dry cereal or granola
- Peanut butter or nuts
- Dried fruit
- Crackers
- Canned juices

- Bottled water – one gallon/person/day; 2 quarts for drinking and 2 quarts for food preparation and sanitation.
- Canned or jarred baby food and formula
- Pet food

**Medical, health and emergency supplies:**

- Prescribed medications and medical supplies such as glucose and blood-pressure monitoring equipment
- Soap and water, or alcohol-based (60-95%) hand wash
- Medicines for fever, such as acetaminophen or ibuprofen
- Thermometer
- Anti-diarrheal medication
- Vitamins
- Fluids with electrolytes
- Cleansing agent/soap
- Flashlight
- Batteries
- Portable radio
- Manual can opener
- Garbage bags
- Tissues, toilet paper, disposable diapers