

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 are:

- Housekeeping, Janitorial, and Custodial Employees
- University Police
- Student Health Services Employees
- New Iberia Research Center
- Some Facility Management
- Some Athletics Training Support Staff
- Some Marine Survival Training Staff
- Environmental, Health and Safety Office Employees

There are occupational risks from blood borne pathogens that may exist for employees who encounter 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 tailored 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, bloodborne pathogens awareness information is provided to all employees at least once every year 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 within 90 of employment and annually 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 office 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 10 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, however it is known to survive as long as 10 hours in the environment. 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, especially the eyes and hands.

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 your 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 injure 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 Medical Evaluation for Employees of UL Lafayette

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 B 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 no 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 university departments who may employ unclassified, classified and student worker employees who are high risk for exposure to bloodborne pathogens and may qualify for Hepatitis vaccinations:

Facility management department

University police department

Marine Survival Training Center

Student Aquatic center (Intramurals)

Student Union department

Athletics department

Environmental, Health & Safety department

Procedure: Employees and Student Employees

1. Upon hiring an employees will be directed to the Student Health Services (SHS) for initial consultation within ten (10) working days of hire.
2. 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.
3. The employee's supervisor shall allow sufficient time to ensure that the employee reports to all necessary SHS appointments.

Post-Exposure Medical Services

Any employee or student exposed to Bloodborne Pathogens must seek medical evaluation from a licensed health care provider immediately. Students of the University must report to Student Health Services (SHS) for evaluation. Employees (faculty, staff, volunteers, visitors) must report to a health care provider of their choice. Notification of incident should be given as soon as possible to Workers Compensation representative in Human Resources for billing. After medical evaluation is obtained, a report (DA2000 or DA3000) should be filed with the Environmental, Health, and Safety Office immediately.

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 ten (10) 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: _____

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 kill or eliminate 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: