

Title/Topic: Management of Human/Primate Body Fluids/Wastes

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MANAGEMENT OF HUMAN/PRIMATE BODY FLUIDS/WASTES

PURPOSE

This Policy Statement summarizes the uniform procedures for the safe management of human/primate blood, unfixed tissues, body fluids, cell lines, and waste.

DEFINITIONS

For the purposes of this Policy Statement, the following definitions shall apply:

“Bacteria” shall be defined as microscopic, single-celled organisms which can exist either as independent (free-living) organisms or as parasites.

“Biosafety Level” shall be defined as the level of the biocontainment precautions required to isolate biological agents in an enclosed facility. The levels of containment range from the lowest biosafety level 1 to the highest at level 4. In the United States, the Centers for Disease Control and Prevention (CDC) has specified these levels. In the European Union, the same biosafety levels are defined in a directive. Biosafety level 2 agents are infectious agents and can cause disease in humans, but their potential for transmission is limited by work practices, safety equipment, and facilities.

“Blood-borne pathogens” shall be defined as pathogenic microorganisms that are present in human blood, tissues, fluids, cell lines, etc. and can cause disease in humans. Not all potential pathogens have necessarily been identified. Examples of pathogens we are aware of include:

- Human immunodeficiency virus (HIV)
- Hepatitis B virus (HBV)
- Hepatitis C virus HCV)
- Malaria
- Syphilis
- Babesiosis
- Brucellosis
- Leptospirosis
- Arboviral infections
- Relapsing fever

- Creutzfeld-Jakob Disease
- Human T-lymphotrophic virus Type
- Viral Hemorrhagic Fever.

“**Parasites**” shall be defined as an organism living on another; a plant or animal that lives on or in another, usually larger, host organism in a way that harms or is of no advantage to the host.

“**Primate pathogens**” shall be defined as a disease producer or agent of disease for members of mammals with a large brain and complex hands and feet, including humans, apes, and monkeys.

The term pathogen was devised from “patho” (meaning disease) + “gen” (indicating a producer).

“**Prions**” shall be defined as an infectious protein particle: an infectious particle of protein that, unlike a virus, contains no nucleic acid, does not trigger an immune response, and is not destroyed by extreme heat or cold. These particles are considered responsible for such diseases as scrapie, bovine spongiform encephalopathy, kuru, and Creutzfeldt-Jakob disease.

GENERAL POLICY

Blood-borne pathogens can pose a serious risk to students, faculty, and staff at Louisiana State University. These pathogens include well known viruses such as Hepatitis B, Hepatitis C, and Human Immunodeficiency Virus (HIV). Also included are prions and a variety of bacteria; parasites such as Babesia and Leishmania; and primate pathogens such as Herpes simiae and Rabies virus. Procedures have been instituted for the management of tissues, body fluids, contaminated waste, and the use of cell lines to prevent infection from occupational exposure in students, faculty, and staff. The procedures outlined below shall be followed by all members of the University community, including, but not limited to, students, faculty, staff, vendors, consultants, contractors, or sub-contractors of the University.

PROCEDURES

Since the potential for infection from exposure to any human/primate fluid, unfixed tissue, waste or cell line cannot be known, precautions recommended by the Centers for Disease Control (CDC) and the Occupational Safety and Health Administration (OSHA) shall be adhered to. These standard precautions, also known as **universal precautions**, are guidelines for the handling and processing of, and exposure to, all human/primate tissues, fluids, waste, and cell lines ***as if they are known to be infectious.***

These guidelines include, but are not limited to, the following; blood, unfixed tissues or organs, amniotic fluid, cerebrospinal fluid, pericardial fluid, peritoneal fluid, pleural fluid, semen, synovial fluid, vaginal secretions, other body fluids and human/primate cell lines regardless of whether they contain visible blood. All members of the University community shall follow the procedures listed in this policy and abide by the [Blood-borne Pathogen Exposure Control Plan](#) and the [Policy on the Use of Human and Primate Cell Lines for Laboratory Personnel](#), maintained by the Office of Environmental Health and Safety (EHS).

More specifically:

- All laboratory specimens of human/primate fluids, unfixed tissues, wastes, and cell lines shall be handled as if infectious, utilizing minimum Biosafety Level 2 practices and/or procedures that comply with standard precautions. These requirements, procedures and facility requirements are described in detail in the Centers for Disease Control (CDC)/National Institutes of Health (NIH) publication entitled [Biosafety in Microbiological and Biomedical Laboratories, 5th edition](#).
 - All personnel working with or exposed to human/primate fluids, unfixed tissues, wastes, and cell lines, including bagged biohazardous material, shall wear latex or vinyl gloves.
 - All research and medical personnel working with human/primate fluids, unfixed tissues, wastes, and cell lines shall wear appropriate lab coats and other protective clothing/attire to protect against contact with the body.
 - Facial barrier protection in the form of a plastic face shield or goggles shall be worn if there is an anticipated potential for splattering blood or body fluids.
 - To prevent needle stick injuries, needles shall not be recapped, purposely bent, cut, broken, removed from disposable syringes and vacutainers, or otherwise manipulated by hand. A new sterile syringe and needle shall be used for each human subject.
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- Body fluids, tissues, wastes, cell lines and their containers, and materials in contact with them, such as gloves, pipettes, collection tubes, swabs, etc., shall be placed in biohazard bags and then either: (1) placed in biohazardous waste boxes and transported to an approved contractor for disposal or, (2) with the exception of needles and syringes, autoclaved in an approved university autoclave and disposed of according to current LSU guidelines. Broken glassware that may be contaminated shall not be picked up directly with bare hands. It should be cleaned up using mechanical means, and brush pan, tongs

or forceps. Dispose of broken pieces in a specially marked container as contaminated material.

- Hands or other skin surfaces shall be washed thoroughly with soap and water as soon as possible if potentially contaminated.
- Work surface for the handling of body fluids, tissues, wastes, and cell lines shall be cleaned frequently with a solution of one part commercial liquid household bleach to nine parts water, or other appropriate disinfectant. Accidental spills shall be promptly cleaned in a like manner.
- Access to laboratories and work areas involving human/primate fluids, unfixed tissues, wastes or cell lines shall be limited or restricted. Such areas will be posted at the entrance with biohazard labels and emergency contact information.
- Instructors, supervisors, managers or principal investigators shall provide training to staff and/or students regarding the potential hazards associated with the work involved, the necessary precautions to prevent exposure, and the exposure evaluation procedures. Employees/students shall receive annual updates and additional training as necessary for procedural or policy changes.
- Standard Operating Procedures (SOP) must be written for all procedures performed by personnel, including operation and maintenance of equipment, in the laboratory or work area.
- This policy shall be made a part of all laboratory manuals where human body fluids or waste products are handled.

Questions or comments regarding this Policy Statement should be submitted to EHS at 225.578.5640 or via e-mail at EHS@lsu.edu.

SOURCE

- US Department of Labor, Occupational Safety & Health Administration, Regulation 29 CFR, Part # 1910, Part Title: [Occupational Safety & Health Standards, Subpart Z](#), Subpart Title: Toxic & Hazardous Substances, Standard # 1910.1030, Title: [Bloodborne pathogens, Appendix A](#).
- [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#), U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institutes of Health, Fifth Edition, US Government Printing Office.

MONITORING UNIT

Office of the Vice Chancellor for Finance & Administrative Services

Risk Management

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