

Biosafety Level 2 (BSL-2) Laboratory Practices

Research involving moderate-risk infectious agents potentially capable of causing human disease must be performed using Biosafety Level 2 (BSL-2) practices. This includes the use of human source material (e.g., human cell lines).

Outlined below are basic rules for operating a laboratory at BSL-2. This is not comprehensive. Refer to the references below for additional rules that may apply to your specific research. The Principal Investigator (PI) is ultimately responsible for the enforcement of these practices.

Training	The PI and lab staff must complete the required EH&S Biosafety training every three years. PI must also ensure and document that personnel receive lab-specific biosafety training and demonstrate proficiency with procedures before performing independent work at BSL-2. The EH&S Bloodborne Pathogens training is required if working with human source material or BBP (e.g., Hepatitis C Virus, HIV).
Access	Keep lab doors closed and post a BSL-2 biohazard warning sign while infectious agents are in use. Store infectious agents in a lockable freezer or lab when not in use.
Facilities	Chairs and other furniture are covered in a non-fabric, non-porous material that can easily be decontaminated. No carpets or rugs permitted. An eyewash and a sink for hand washing must be available.
Personal Protective Equipment (PPE)	Wear appropriate PPE when working with infectious agents. Standard BSL-2 PPE consists of a dedicated lab coat, gloves, and eye protection. Other PPE may be required (see EH&S PPE Assessment Guide). Do not wear PPE in public areas.
Aerosol Containment	Perform aerosol-generating procedures involving infectious agents (e.g., vortexing, sonicating, pipetting, harvesting infected tissues from animals) inside a certified biological safety cabinet (BSC). If this is not possible, contact EH&S Research & Occupational Safety at ehsbio@uw.edu or 206.221.7770 for evaluation.
Decontamination	Decontaminate all cultures, stocks, biohazardous waste, and other potentially infectious materials prior to disposal using an appropriate method such as autoclaving or chemically disinfecting. Decontaminate work surfaces and lab equipment after completion of work and after spills or splashes of biohazardous materials.
Sharps	Collect sharps in a red plastic sharps container. If needles are used, do not bend, shear, break, recap, or otherwise manipulate by hand before disposal. Transport non-disposable sharps in a hard-sided container for decontamination.
Transport	Place infectious materials and biohazardous waste in a leak-proof secondary container labeled with a biohazard symbol. Decontaminate the outside of the container prior to leaving the lab. PPE should not be needed for transport.
References	Biosafety in Microbiological and Biomedical Laboratories (BMBL) UW Biosafety Manual