

Bloodborne Pathogens

[Bloodborne Pathogen Program](#)

[Hepatitis B Declination Form](#)

Training (Mandatory) --The Bloodborne Pathogens (BBP) training is required on an annual basis if you work with blood, other potentially infectious agents (OPIM), or in a BSL2 laboratory. This training goes over the definitions and safe handling of BBP, proper procedures for biological waste, and information about Biosafety levels. Contact the Environmental Health Manager to arrange for training. Online training coming soon.

Biohazards are potentially infectious microbiological agents including parasites, fungi, bacteria, rickettsia, viruses or recombinant DNA materials and genetically engineered organisms which can cause disease in humans, animals or plants. (Human bloodborne pathogens including HIV and Hepatitis-B are addressed separately by OSHA Regulation and Governor's Executive Order). Procedures for handling biohazardous agents are promulgated by the National Institutes of Health (NIH) and the Centers for Disease Control (CDC). The Colorado School of Mines will conform to CDC/NIH guidance published in a book entitled [Biosafety in Microbiological and Biomedical Laboratories](#), U.S. Department of Health and Human Services, 4th Edition, 1999. Additional guidance concerning protective measures for recombinant DNA research is found in a publication entitled [Guidelines for Research Involving Recombinant DNA Molecules](#), U.S. Department of Health and Human Services, National Institutes of Health, May 2011.

Biohazardous agents are divided into four risk categories. Class 1 agents present the least risk, and Class 4 agents present the greatest risk. Similarly, four levels of containment are prescribed for management of biohazardous agents. Biosafety Level 1 is the least restrictive mode and depends on standard microbiological laboratory practices without the use of special containment barriers. Biosafety Level 2 requires a system of containment which utilizes primary barriers (face shields, gowns, shields, etc.) to protect against splashes or direct contact with aerosols. Biosafety Level 3 requires handling of infectious agents in biological safety cabinets. Biosafety Level 4 requires complete isolation of infectious materials in the most protective type of biological safety cabinet. The room itself must also be physically isolated and must be equipped with specialized ventilation and waste management systems. The School is not equipped with Biosafety Level 3 or 4 facilities. Therefore, possession of Class 3 or 4 infectious agents is currently prohibited on the CSM campus. Information regarding classification of organisms may be found at <http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm>.

Acquisition of Biosafety Level 2, 3 or 4 infectious agents or recombinant DNA materials must be pre-approved by the EHS Department and/or the Biosafety Committee. The EHS Department and the Principal Investigator will work out details of shipping, laboratory equipment, signage and handling procedures on a case-by-case basis. In circumstances where a biological safety cabinet will be needed, the Principal Investigator shall ensure that the cabinet is installed, certified, maintained and inspected in accordance with guidance published in [Primary](#)

[Containment of Biohazards: Selection, Installation and Use of Biological Safety Cabinets](#) , U.S. Department of Health and Human Services, Public Health Service, CDC/NIH, September 1995.

Possession, receipt or transfer of "select agents" must be authorized by a special permit which is issued by CDC. Select agents are those that pose risks to public health or national security. Principal Investigators should seek assistance from the EHS Department if there is a need to obtain permits for select agents.

<http://inside.mines.edu/UserFiles/File/EHS/Forms/Hepatitis%20B%20Declination%20Form.pdf>