

Safety Precautions

Use Universal Precautions – assume anything that could be infectious is infectious and treat it appropriately.

Wear your Personal Protective Equipment (PPE)



Wear gloves whenever you could encounter blood or OPIM.



Wear a lab coat or other coverings if materials could splash on clothing.



Wear goggles and a mask or face shield if materials could splash on face.

- Remove PPE if it becomes contaminated or defective and always remove PPE before leaving the lab.
- Remove PPE slowly and carefully to prevent exposure from substances on the PPE.

Wash hands thoroughly after removing PPE and before leaving the lab.

Work in a biosafety cabinet wherever possible. They help to protect from splashing and remove any aerosols that could be generated by your work.

Put used needles and syringes directly into an appropriate container. NEVER recap needles after use.

Never use your mouth to pipette or suction blood or OPIM.

Don't eat, drink, apply cosmetics or lip balm, or handle contact lenses in any work areas where there is the possibility for exposure to blood or OPIM.

Don't place food or drinks in refrigerators, freezers, shelves, countertops, or other areas where blood or OPIM is stored or handled.

Remember

Under the right conditions bloodborne pathogens can survive outside the body and still remain infectious.

- HIV can survive up to 6 days
- HBV can survive up to 7 days
- HCV can survive up to 3 weeks

This is why it's so important to wear your PPE and keep your work space clean.



Report all Incidents

Send EH&S an incident report if you:

- Find abandoned sharps
- Find blood or OPIM
- Are injured

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BLOODBORNE PATHOGENS IN THE LABORATORY



Environmental Health & Safety



Bloodborne Pathogens

Bloodborne pathogens (BBP) are microorganisms found in blood and other potentially infectious materials which can cause disease in humans. The 3 most common are:

- Human Immunodeficiency Virus (HIV)
- Hepatitis B Virus (HBV)
- Hepatitis C Virus (HCV)

Other Potentially Infectious Materials (OPIM) are:

1. The following bodily fluids:
 - Semen and vaginal secretions
 - Fluid surrounding organs (brain, heart, etc.)
 - Saliva in dental procedures
 - Body fluids visibly contaminated with blood
 - Body fluids that can't be distinguished
2. Any unfixed tissue or organ (other than intact skin) from a human or non-human primate (living or dead)
3. HIV containing cells or tissue cultures, organ cultures, and HIV or HBV containing culture medium or other solutions
4. Blood, organs, or other tissues from experimental animals infected with HIV or HBV
5. Any pathogenic microorganism
6. Human cell lines that have not been tested to ensure they are free of pathogens

BBP are transmitted through contact with infected blood or OPIM. In the lab this is usually from:

- Accidental puncture from contaminated needles, broken glass, or other sharps.
- Contact between broken or damaged skin, or a mucous membrane, and infected substances.

Clean-up and Decontamination

If something becomes contaminated with blood or OPIM it must be cleaned with an appropriate disinfectant as soon as possible.

Any areas where blood or OPIM are used must be thoroughly decontaminated at the end of the class, experiment, and/or day.

1. Restrict access so only people involved in clean-up are present.
2. Put on PPE.
3. If sharps are present, use tongs or a broom and dustpan to carefully move them to a sharps container.
4. Use absorbent/paper towels to soak up any spilled material.
5. Clean the area with fresh 10% bleach or other EPA-registered disinfectant¹.
6. Saturate the contaminated area with disinfectant from step 5.
7. Leave the disinfectant on for 10 minutes¹.
8. Wipe up excess liquid
9. If necessary, decontaminate equipment (e.g. broom) by soaking in disinfectant for 10 minutes¹, removing excess liquid, and allowing the equipment to air dry
10. Dispose of towels, cleaning materials, and PPE in biohazard waste containers.



¹Follow manufacturer guidelines for concentration and the amount of time the product should remain in contact with the surface for effective decontamination.

BBP Exposure Response



If you have an exposure to blood or OPIM:

1. Thoroughly clean the affected area for 15 minutes:
 - Wash skin with soap and warm water.
 - Flush splashes to nose or mouth with water.
 - Irrigate eyes with clean water, saline, or a sterile irrigant.
2. Report the exposure to your instructor, PI or supervisor.
3. After washing/rinsing you should seek medical attention:
 - Make sure to tell the medical provider you had potential exposure to bloodborne pathogens.
 - Employees of EWU should inform their medical provider that they were injured at work. DO NOT use your insurance, L&I will pay for this visit.
4. You or your instructor, PI or supervisor must fill out an [incident report](#) as soon as possible.
 - If you elect not to seek medical attention, fill out an [Informed Refusal for Medical Evaluation](#) form on the EH&S website and submit it with your incident report.