


# Guidelines for Aseptic Technique

Environmental Health & Safety

## SOP No. 3.2

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### PURPOSE

This SOP describes suggestions for proper aseptic technique. Each laboratory has unique procedures which may require aseptic technique. This SOP offers guidelines for best practice using aseptic technique. Laboratories should develop proper SOPs that emphasize the points within their laboratory procedures.

Given that use of aseptic techniques will vary by laboratory and task, only general concepts are addressed here. In all cases, good hygienic practices greatly minimize contamination to personnel and the work area as well as cross-contamination between samples.

### PROTECTIVE EQUIPMENT

A lab coat (barrier-style is best for biological work), eye protection, and disposable gloves are the minimum requirements for manipulating chemical/biological materials. Additional PPE and/or engineering controls, such as a biological safety cabinet, may also be necessary.

### GUIDELINES FOR ASEPTIC TECHNIQUE

- Perform sensitive tasks that do not involve biological materials in a laminar flow hood.
- Manipulation of biological material should be done in a BSC when feasible, this is especially important when force is applied to a material as aerosols can be produced.
- Use laminar hoods and BSCs correctly. (see section B9 of the University Laboratory Safety Manual)
- Keep work surfaces uncluttered and free on non-essential materials.
- Decontaminate work area before beginning work.
- Arrange work flow from clean to dirty to avoid passing contaminated material over non-contaminated material.
- Regularly decontaminate equipment.
- Frequently wash hands and change gloves. Hands should be washed upon entering the lab and must be wash after a spill or before leaving the lab.

- You can disinfect the outer surface of gloves. Be aware that the use of ethanol on gloves can affect the integrity of the glove in time.
- Wear appropriate, well-fitting PPE. Lab coat/gown shall be buttoned all the way and glove cuffs should cover coat or gown cuffs.
- Work vigilantly and deliberately when handling materials.
- If a flame is used, adjust your burner appropriately. A proper flame has a bright, inner pale blue cone surrounded by a more translucent outer cone.
- Avoid placing caps/covers on the work surface. Place them face down if needed.
- Use tools (forceps, tube openers, etc.) to open and close tubes containing biological material. Disinfect these tools regularly.
- Never assume an object is not contaminated.
- Clean up spills immediately.

## **REFERENCES**

Section B8.3.4 of the University Laboratory Safety Manual.

### **AKNOWLEDGEMENT OF PROFICIENCY**

The individuals below have been trained and are competent in completing the above procedure.

<b>Worker Name</b>	<b>Worker Signature</b>	<b>Date</b>	<b>Supervisor Initial</b>	<b>Date</b>