

Proper Work Practices When Working in a Biosafety Cabinet (BSC)

1. Turn off UV lamp, if one is used. (*NOTE: The Biological Safety Office recommends that the use of UV lamps be avoided, as it is generally ineffective for adequate disinfection.*)
2. Turn on fluorescent light, inspect air intake grilles for obstructions and foreign materials, and remove any obstructions.
3. Adjust view screen to proper height.
4. Turn on blower, close the sash, and allow the fan to run for 5 minutes to purge the air.
5. Wash hands and arms with a mild soap (avoid using “antimicrobial” soaps) for at least 15 seconds.
6. Don a lab coat or, preferably, a rear-fastening, long sleeved gown with tight fitting cuffs.
7. Don a pair or two of nitrile gloves.
8. Disinfect the interior surfaces of the BSC by wiping down with an appropriate disinfectant. (*NOTE: If using a disinfectant such as Wescodyne, bleach, or other commercially prepared solution, it is helpful to follow with a 70% ethanol rinse to help disinfectant evaporate quickly and prevent corrosion.*) Wipe towards yourself, in straight horizontal lines. Each time, overlap the previous wipe by 10-25%. Also wipe from the top of the cabinet to the bottom on all sides and on the interior of the sash. Contaminated wipes should not be placed on areas which have just been disinfected.
9. Place all items required for the protocol in the rear of the BSC (waste receptacles, discard pans containing bleach or another appropriate disinfectant, pipettes and tips, reagents, media, and other necessary items). Items should be organized in a manner to minimize movement within the BSC. All work should be performed at least 4 inches back from the inside edge of the front grille.
10. Segregate clean and dirty items. A specific side/section of the cabinet should be dedicated to either or.
11. After placing hands inside the cabinet, allow the air to stabilize before beginning work.
12. Minimize movements inside the cabinet. Any movement should be done slowly and in a direction perpendicular to the back of the cabinet. Side-to-side movements should be avoided.
13. If you must exit the cabinet, do so in a motion that is slow and directed away from the cabinet. Upon reentering, wait a few minutes for the air to once again stabilize.
14. When finished working, remove all items slowly and away from the cabinet. Decontaminate all waste items with an appropriate disinfectant and place into the proper waste receptacle. If using a plastic-backed pad, remove and place in a biological waste box after other items have been cleared.
15. Disinfect all surfaces as before. Turn off fluorescent light and allow the blower to continue to run for 5 minutes after work has ceased and reentry into the cabinet is no longer necessary.
16. Turn off the blower.

*For ease of accessing materials in the BSC during work, consider using a BSC turntable (NuAire-Scientific Visions SV-977-001, \$60)