





HSC Safety Tips No. (14)

1. Biological safety cabinets should **NOT** be confused with clean benches which are not suitable for work with infectious or toxic materials, and with conventional fume hoods that **DO NOT** filter microorganisms.
2. The biological safety cabinet **SHOULD** be turned on for at least 10-15 minutes prior to use, if the cabinet is not left running. Furthermore, the manipulation of materials **SHOULD** be delayed for approximately one minute after placing the hands and/or arms inside the cabinet.
3. While using biological safety cabinets, use a clean to dirty layout, with clean items at one side of your work area and dirty items at the other. **DO NOT** block the front or rear grille with papers, equipment, etc. All operations **SHOULD** be performed on the work surface at least 10 cm from the front grille. Minimize reaching in and out of the cabinet and move arms in and out slowly, perpendicular to the cabinet face opening. This will reduce the risk of disrupting the cabinet air barrier. A photograph of a biological safety cabinet with various laboratory equipment on the work surface. A large red 'X' is drawn over the image, indicating that the setup is incorrect or unsafe.
4. **DO NOT** use an open flame in biological safety cabinets. It can create turbulence that disrupts air flow. If the gas to a Bunsen burner is accidentally turned on without the burner being lit, the concentration of gas will build up due to recirculation of the cabinet air. The fan motor can act an ignition source resulting in a serious explosion and fire. Instead, use sterile disposable supplies, an electric incinerator, a pilotless burner, or a touch-plate micro-burner to provide flame on demand. A red icon of a Bunsen burner with a flame, indicating that open flames are prohibited in biological safety cabinets.
5. Be very careful when using small pieces of materials such as Kim wipes inside biological safety cabinets. These can be blown into the cabinet and disrupt the motor operations.