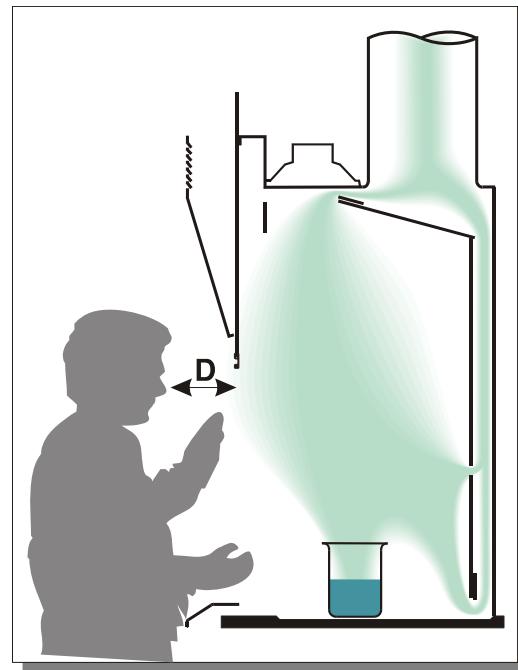
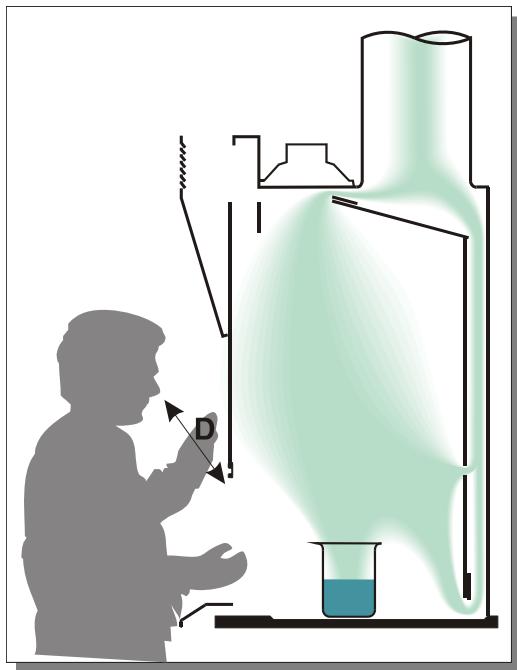


Fume Hood Safety

Laboratory fume hoods are used for the safe containment of flammable, toxic, or offensive materials. Even though they protect against most hazards they are not designed for highly toxic ($LD_{50} < 5 \text{ mg/kg}$) or violently reactive materials (contact EHS if you work with these materials). Safe fume hood working practices are the key to ensuring that your fume hood is providing maximum protection.

Ohio University's fume hoods are certified annually to ensure that they are working properly. If your fume hood does not have an up to date certification sticker, contact EHS so the fume hood can be tested. The testing of a fume hood consists of a check for optimum velocity, and a smoke test to ensure that no material is spilling out of the fume hood. Modifying a fume hood could upset the balanced airflow in the hood, causing vapors or gasses to spill out of the hood into the working area of the researcher. Over filling the fume hood with equipment can also disrupt airflow; separate items and use risers to maintain air flow around the apparatus. Be sure to place materials you will be working with at least 6 inches into the fume hood to ensure that the fume hood can effectively capture the vapors.

Lower sash to ~16-17 inches above the work surface to maximize protection



Recommended

Not Recommended

Finally, do not use the fume hoods to store chemicals for an extended period of time. This is especially true for corrosive and volatile materials, as they only serve to exacerbate the problem should a fire or explosion occur. A cluttered fume hood poses multiple safety risks, from fire, explosions, spills, and unintended reactions. Unnecessary clutter also jeopardizes the integrity of your research by increasing the chances of contamination and/or unintended reactions.

Safe Fume Hood Practices

- Check fume hood to make sure it is working- Check the magnehelic or digital gauge to ensure that the fume hood is working. The arrow should be between the two wax pencil markings, or the digital readout should be green.
- Setup work at least 6 inches from the sash- This avoids unwanted turbulence that can cause material to leak out.
- Avoid using paper and other light material in the hood- Light material can be sucked into the exhaust system and plug it up.
- Lower sash to optimum working height- The sash should be 16-17 inches above the airfoil. Some hoods have a marked optimal height.
- Avoid traffic around the fume hood- Opening doors and walking by the hood can create enough turbulence to pull material out of the hood.
- Never put your head in a fume hood when working with chemicals- If you need to rearrange materials in a fume hood, remove or close all hazardous materials. Allow the hood to run for 10 minutes before rearranging your set-up.
- Clean spills in the fume hood immediately
- Avoid storing chemicals in fume hoods- When finished using a chemical, take it to an appropriate storage area.
- Do not modify the structure of the fume hood in any way- Modifying the fume hood may render it ineffective, posing serious health risks. Consult EHS before modifying a hood.
- Report any problems with the fume hoods to EHS immediately.

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