

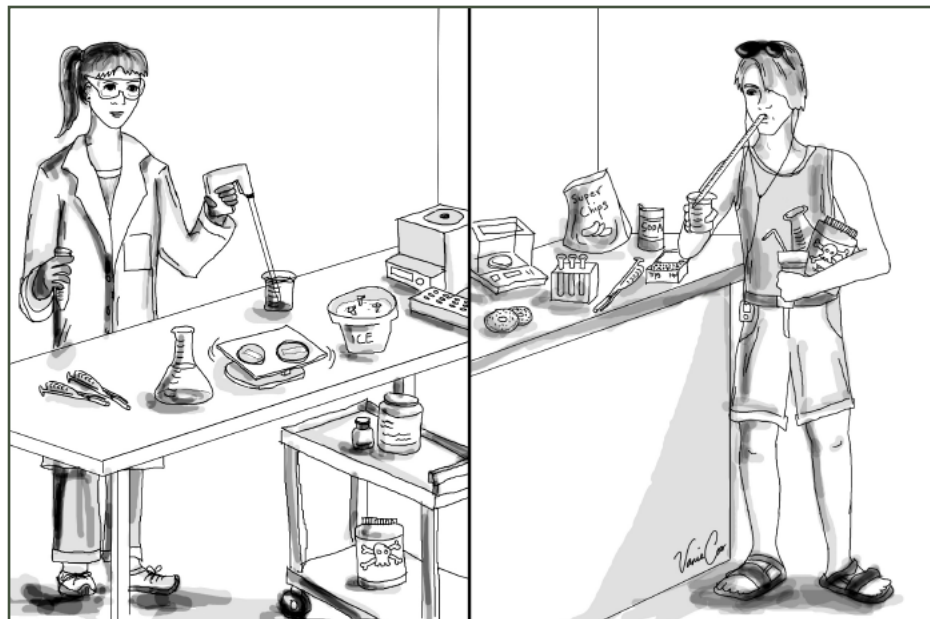
CATALYTIC TIPS: News You Can Use

Lab Safety at NIH

Here are a few tips for safety in the lab.

Laboratory supervisors should ensure that all personnel under their direction possess the requisite knowledge, training, and education to safely handle hazardous chemicals in the laboratory. All laboratory personnel are responsible for following the appropriate work practices when using hazardous chemicals:

- Minimize all chemical exposures and avoid underestimating the risk. Avoid unnecessary exposure by any route.
- Keep food, beverages, cosmetics, and medication outside the lab.
- Protect your clothes and exposed skin by wearing laboratory coats and gowns. Open-toed shoes, sandals, shorts, and other apparel that leave skin exposed are not appropriate in the lab, especially when handling potentially hazardous chemicals. Laboratory coats must not be worn outside the laboratory.
- Wear the appropriate gloves and eye and face protection whenever handling hazardous chemicals. These items should not be worn outside the laboratory.
- Ensure unimpeded access to safety showers and eyewash stations. Test flush eyewash stations weekly.
- Remove gloves carefully; thoroughly wash hands and forearms upon completion of work and before leaving the laboratory.
- Use only an approved chemical fume hood when opening, pouring, or handling hazardous chemicals.
- Conduct all work within the chemical fume hood at a distance of at least six inches behind the face opening and position the vertical sliding sash at the height specified on the certification sticker. Avoid blocking the airfoil, baffles, and



Remember the cartoon feature "Goofus and Gallant" in the magazine Highlights for Children? Can you guess which character here represents the irresponsible Goofus and which one the responsible Gallant? How many dos and don'ts for lab safety do you see here? (Answers below)

— Illustration by Vania Cao

rear ventilation slot. Support large items with legs to minimize airflow disruption across the work surface. Minimize foot traffic around the hood during use because passing in front of the hood during its operation disrupts the airflow and may pull contaminants out of the hood. Do not use the fume hood for storage. By following these steps, the hood provides adequate containment for most chemical operations.

- Keep all doors to the laboratory closed. Open laboratory doors can adversely affect hood performance and appropriate air flow through the building.
- Do not use or store chemicals or compressed gas in cold rooms and warm rooms because they have contained, recirculated atmospheres.
- Never pipette by mouth.
- Transport laboratory chemicals using bottle carriers and suitable carts.

- Follow the established procedures for the decontamination and safe movement of scientific and medical equipment.
- Maintain proper oversight of inexperienced personnel (high school students, etc.) working with potentially hazardous chemicals.
- Contact DOHS (301-496-2346) for clearance of the workspace when personnel have to enter laboratories to perform required services (such as maintenance). Remove hazardous materials from equipment and facilities to be serviced, and forewarn personnel of the need for protective equipment or work practices, etc. Decontaminate the equipment when possible. Provide the appropriate personal protective equipment.
- Follow the hazardous material spill procedure immediately in the event of a hazardous chemical spill.

Text courtesy of: Division of Occupational Health and Safety, ORS August 2008

ANSWERS TO CAPTION QUESTIONS:
 Dos (left): goggles to protect eyes; hair tied back; lab coat; gloves; long pants; proper shoes; proper pipetting technique; chemicals transported on cart; no food in lab.
 DON'Ts (right): pipetting by mouth; improper attire; shorts, sleeveless shirt, no lab coat, open-toed shoes; no socks; long hair not tied back; wires dangling around neck; carrying chemicals instead of transporting them on cart; food in lab; no gloves or eye protection.