

Slips, Trips and Falls in the Lab Fact Sheet

Slips, trips and falls at work are the second most common cause of lost-workday injuries according to NIOSH (National Institute for Occupational Safety and Health). Laboratories by nature have features which can exacerbate these hazards. Frequently wet surfaces, spills and splashes, and constant washing of glassware can all contribute to the risk of slips, trips and falls. EH&S also helps to check for these hazards during the lab assessment process.

What are general definitions of slips, trips and falls?

- Slips are a loss of contact between the foot and the floor due to a lack of traction between the person's footwear and the walking surface. Culprits include loose mats/rugs, spills, weather related events (ice, snow, puddles), and surfaces that are wet or oily. The person's foot generally goes forward, and they fall back.
- Trips occur when a person's foot strikes an object - resulting in a loss of balance. These are generally due to obstacles a person fails to see, such as clutter, uneven surfaces or in dim lighting conditions. The person generally falls forward in a sudden fashion.
- Both slips and trips can result in falls. Falls happen within 2 categories: falls from 'the same level' and falls from heights. Same level falls include falls from ladders, stools and stairs and comprise 65% of all fall injuries. Falls from heights include falls off scaffolding.

What are the common causes and some ways to minimize slips, trips and falls in laboratories?

1. Wet or slippery floors:



- Please always be on the lookout for slip hazards, such as spills, including water, grease, oil, sawdust, or other debris. Even a small amount is enough to make you fall.
 - Fine powders, such as silica gel and media used for culturing microorganisms, will also make the floor very slippery if it is not properly contained and cleaned up properly.
- Pump oil spills usually will leave a floor very slippery after being wiped up. You may use a cloth with a bit of hexanes to clean up after the spill, and dispose of the cloth and other clean up materials containing oil as hazardous waste.
 - Always clean up spills right away. If there is a large chemical spill, please contact EH&S (413-545-2682) for assistance.
 - “Caution Wet Floor” signs may be helpful when working in an area with a wet floor to notify others of the hazard.
 - Weather can also be a factor in creating hazardous walking surfaces.
- #### 2. Uneven or changes in levels of floor surfaces or damages to tile:

- Walking surfaces can cause trouble when they are uneven, including stairs or lack of rails, or in changes of traction due to change in surface type, such as from carpet to tile.
- If you see any holes, cracks, or uneven surfaces in the floor that could be a trip hazard, please contact facilities and campus services by phone 413-545-6401 or by the online request form (<https://www.umass.edu/facilities/requests>).



3. Unsuitable floor coverings

Damaged or unsecured floor mats may also cause slips, trips and falls.

- If the floor mat is folded back, someone could catch their foot on the mat and trip.
- Select slip resistant floor coverings for areas that may have slip hazards.
- Floor mats may be kept at entry doors to allow for complete wiping of shoes.

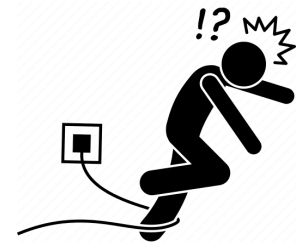
4. Poor lighting

- Lighting is important, all walkways should be well lit.
- Please report any flickering lights or burn out light bulbs to facilities and campus services by phone 413-545-6401 or by the online request form (<https://www.umass.edu/facilities/requests>).

5. Trailing cable

Cables/wires should not cross walkways.

- For temporary use, you may tape cables/wires to the floor and have warning signs.
- For permanent or long-term use, please request for an electrician to install an outlet for usage. You may also use cable protectors and cord covers (pictured on the right). Please note that extension cords are not appropriate for long term use.



6. Poor housekeeping.

- Keep high traffic areas, walkways and aisles clear of boxes, extension cords, litter and debris.
- It is important to cover cables that cross walkways and to mark wet areas.
- Close all file cabinets or storage drawers.
- Do not store trash cans or other items in front of doorways.

7. Improperly used step stools or ladders

- Store frequently used items on lower shelves to avoid using ladders.
- Choose the appropriate ladder for the job.
- Place the base on a firm, solid surface
- Face the ladder and grip the rungs, not the side rails when you climb.
- Always keep 3 points of contact with the ladder.
- Do not climb with tools in your hands.



- Do not lean or overreach. Reposition the ladder closer to the work instead.
- Do not step on the top rung.
- Never stand on a chair, table or surface with wheels.

8. Transporting materials

When you transport hazardous materials to another lab or another building, slips, trips and falls may happen during transport.

- To prevent spills, always transport hazardous materials in a bucket or in a secondary containment. A cart with side rails or a bucket with a lid is recommended especially when transporting to another floor or building.



You may report any building issues, such as loose or missing floor tiles and lighting problems, by calling 413-545-6401 or using the online [service request form](#) by facilities and campus services. If you need assistance with cleaning up chemical spills, please feel free to call EH&S at 413-545-2682.

References:

1. NIOSH Slip, Trip, and Fall Prevention for Healthcare Workers:
<https://www.cdc.gov/niosh/docs/2011-123/pdfs/2011-123.pdf>
2. OSHA Slips/Trips/Falls for hospitals
<https://www.osha.gov/etools/hospitals/housekeeping/slips-trips-falls>