

The following is a summary of a recent incident at Columbia University. The information presented is intended to provide awareness and help readers plan against the occurrence of a similar situation in their laboratory or work area.

Mercury Falling

A mercury spill occurred when a thermometer fell out of a chemical fume hood and impacted the floor. A short time later, without realizing that the mercury, a toxic and volatile liquid metal, had spilled, the laboratory's occupant exited the lab. A second laboratory occupant, unaware of the spilled mercury, entered the lab and proceeded to walk around, conducting their normal business. This disconnect increased the likelihood of someone walking through the spill, potentially contaminating their shoes and inadvertently tracking mercury into the hallway or into another laboratory.

Because the spill occurred after normal business hours, Public Safety was called and a spill response with Environmental Health & Safety (EH&S) was coordinated when the second laboratory occupant noticed the broken thermometer. While it is typically safe for a laboratory to clean up the small amount of mercury in a thermometer, EH&S responded due to the concern of personal contamination and possible spread outside of the lab. A mercury vapor analyzer was used to determine the scope of the contamination by surveying the laboratory, adjoining hallway, and the laboratory occupants. The spilled mercury, determined to be confined to a small area beneath the chemical fume hood, was then cleaned up by EH&S. The laboratory occupants, and their shoes, were found to be free of mercury contamination and were released.

Lessons Learned

- Always [alert](#) fellow laboratory occupants to any hazardous condition immediately after it is discovered to prevent unnecessary exposure and the potential spread of a contaminant.
- Alcohol thermometers are a suitable replacement for mercury thermometers in most research applications. EH&S will provide alcohol thermometers, at no cost to your laboratory, in exchange for mercury thermometers. Please contact your [Research Safety Specialist](#) to arrange a thermometer exchange.
- Laboratories that use mercury devices are required to maintain a mercury spill kit. [Mercury spill kits](#) are inexpensive and can be used by the laboratory to safely clean up a manageable mercury spill, which includes the typical contents of a broken mercury thermometer.

For further information on this or any other safety related matter, please contact the [EH&S office](#).