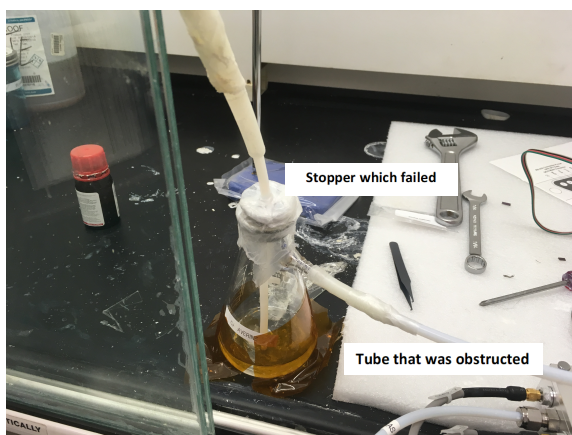


While checking on the progress of an ongoing gas sensor test a post-doctoral researcher was exposed to a chemical known as cadaverine when an over pressurization event dislodged a flask stopper spraying the chemical onto the post doc's face.

What happened?

While checking on the progress of an ongoing gas sensor test a post-doctoral researcher was exposed to a chemical known as cadaverine. While making an adjustment to the experiment the researcher inadvertently obstructed the tube connected to the test apparatus causing the test flask to over pressurize, pushing the stopper out of the top of the flask and splashing the chemical inside the flask into the face of the post doc. The test set up was located inside a chemical fume hood but the fume hood sash was not properly configured to protect from a splash hazard. The post doc was not wearing appropriate personal protective equipment (PPE). The postdoc's face was rinsed for 15 minutes, the SDS for the chemical in question was retrieved and the postdoc was transported to the University Hospital emergency room for evaluation. The incident was not reported to EHS in a timely manner as required.



What went right:

- Post Doc was not working alone
- Lab group responded quickly and appropriately by rinsing the exposed area thoroughly for 15 minutes then taking the SDS to the ER with them
- Principal Investigator is taking the opportunity to review all lab SOPs and complete a safety self-inspection

Lessons Learned:

This incident emphasizes the need for robust written standard operating procedures (SOP) and training of lab personnel on the requirements of those SOPs.

The following lessons learned were identified by lab personnel and EHS:

- **Written SOPs:** A robust written SOP is a critical element of any laboratory's safe operations. Written SOP ensure that appropriate controls are in place to prevent incidents of injuries as well as ensuring the integrity of the research.
- **Training is crucial:** Lab personnel were unaware of the proper procedures for handling an incident such as this and had to ask for guidance from an adjacent lab. Principal Investigators are responsible to ensure that all lab personnel have been properly and adequately trained in emergency procedures.
- **Wear your PPE:** Personal protective equipment is your last line of defense against injury. Minimum PPE when working in a lab is long pants, closed shoes, lab coat, eye protection and appropriate gloves. Additional PPE may be required as outlined in the lab's written SOPs.
- **Use equipment properly:** When working in a fume hood the sash glass must be positioned such that it is between the user and the experiment inside the hood.
- **Situational Awareness:** Always pay close attention to all aspects of an experiment in progress to help prevent inadvertent actions leading to system failure.
- **Assess the Risk:** Reviewing SOPs and experimental procedures every time an experiment is conducted is crucial. Even if you have performed an experiment fifty times the procedure should be reviewed every single time. Asking every time, "what could go wrong with this experiment," and ensuring measures are in place to prevent incidents.