



IN CASE YOU HAVEN'T “HERD”



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Preventing and Responding to Laboratory Accidents

By Peter J. Nowak

Lab accidents can come in a wide variety of forms including chemical spills, chemical exposures, fires, explosions, cuts, trips, slips, and falls. Other possible issues could be an animal bite or exposure to a contaminated specimen or tissue. The steps taken prior and during an accident can be the difference between a lesson learned and a trip to the hospital for a potentially serious injury.

The first step in preventing accidents and injuries in a lab is:

1. Know the Hazards!

Before you start to work in a lab your supervisor should ensure you are familiar with what you will be working on. For example if you are going to be conducting experiments that involve phenol, you should read the MSDS for phenol. Know what the risks are, what personal protective equipment (PPE) you need to wear, and especially how to react if an accident occurs. In the case of phenol, it is extremely caustic

and can cause severe burns. If you spill it on your clothing, remove the clothing and activate the safety shower. Rinse for at least 15 minutes and seek medical advice.

2. Prepare to React!

Accidents happen. Many times they can be prevented, but this is not always the case. Training can provide some sense on how to respond if something should go wrong. Tufts Environmental Health and Safety (TEHS) offers on-line training for general emergency response and lab safety. This can be accessed at: <http://publicsafety.tufts.edu/ehs/downloads/EH&SLearnCenterOnlineInstructions.pdf>

In general, if a spill or small lab fire should occur, do not panic. If it small and manageable and you have had training to either clean up the spill or extinguisher training for the small fire then it is ok to attempt. If for any reason the chemical is highly toxic or you do not think you can manage a small fire do not

put yourself at risk. Evacuate, get others out and contact the Campus Police at 6-6911.

3. Focus on Prevention!

Although I have listed this last, it is the most important aspect of laboratory accidents. Using secondary containment when moving a chemical can prevent the spread of a spill. Keeping lab floors and benches clear and uncluttered will help reduce the risk of an accident occurring. Wearing PPE, such as gloves, lab coats and safety glasses will reduce the risk of bodily injury. Keeping flammable materials away from open flames such as Bunsen burners will prevent lab fires. Using common sense to make prudent and sound judgments if an emergency should arise could go a long way to minimizing injury and damages.

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What? More Inspections!

By Stephen R. Larson, TEHS Director

The primary purpose of laboratory safety inspections is to assist the laboratory staff at identifying hazards and implementing reasonable control measures. Tufts EHS makes every effort to schedule and plan inspections to minimize interference with experiments, meetings and other important laboratory activities. Inspections also document the significant efforts of laboratory staff to

comply with codes, regulations and safety policies and allow Tufts EHS to provide useful information to regulatory agencies.

Another goal of inspections is to help prepare the lab staff for inspections by one or more regulatory agencies.

Unfortunately, these agencies can inspect our laboratories at any reasonable time (they define

reasonable!): fire safety, radiation safety, chemical safety, and hazardous waste inspections can occur at any time.

While annoying to all, inspections should be viewed as an opportunity to demonstrate Tufts strong commitment to providing a safe workplace for its faculty, staff and students.



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