

Are you familiar with the hazards and controls in your lab?

There are many hazards associated with working in a lab environment. These are usually mitigated via the use of engineering controls (e.g., fume hoods) and administrative procedures such as work plans (e.g., JHA's, AHD's, etc.). Unfortunately, sometimes serious accidents occur as discussed in a recent video entitled, "[Experimenting with Danger](#)" produced by the Chemical Safety Board. While these accidents happened at different institutions and were associated with unrelated research activities, they are connected in that rigorous hazard evaluation and control systems were lacking. This underscores the importance of integrating safety into your work. More>

Have you have heard about the UCLA tragedy in which a young woman died from injuries sustained in an accident involving the pyrophoric (air reactive) chemical *tert*-butyl lithium? More recently an explosion at Texas Tech University severely injured a researcher who lost three fingers and sustained an eye injury when handling an explosive nickel hydrazine perchlorate compound. A third accident, which occurred in the mid-nineties, involved a Dartmouth College researcher who died after a few drops of dimethyl mercury, a highly toxic organo-metallic compound, penetrated her latex glove and got on her skin.

These occurrences are the subject of a 24 minute video on laboratory safety entitled, "[Experimenting with Danger](#)" produced by the Chemical Safety Board. While these accidents happened at different institutions and were associated with unrelated research activities, they are connected in that rigorous hazard evaluation and control systems were lacking. This underscores the importance of integrating safety into your work.

Anyone who works in a chemical laboratory should make it a priority to review this video - in a group setting, followed by a discussion - if possible. There are important lessons on accountability and follow through that everyone in the LBNL community can benefit from, regardless of work location and occupation.

You should be aware that we have resources and control systems in place to prevent accidents like these from occurring at LBNL. For example, work with pyrophoric materials must be conducted under an Activity Hazard Document and only after rigorous on the job training. The Lab has restrictions on the amount and types of chemicals with explosive properties that can be used. Regarding gloves - we require that objective chemical challenge data be consulted prior to use. We have a training program that is tailored to hazards and work activities. Please consult the Lab's [Chemical Hygiene and Safety Plan](#) for more information on these matters. Moreover, Lab policy is to report all accidents and near hits. These are evaluated and analyzed in order to prevent recurrence. Finally, if you have any questions or concerns about your safety, please discuss them with your supervisor.