

## Why use a Risk Assessment?

- You can mitigate the danger of using certain hazardous chemicals and processes by thinking through the whole process and pre-empting any issues that may arise.
- Using a risk assessment lets you put **controls** into place to bring the risk of these processes and chemicals down to a level that is **reasonably practicable**
- On top of this, having a risk assessment in place is also a legal requirement under the Health and Safety at Work Act (1974)

## Basic steps for a Risk Assessment

1. Identify hazards
  - A risk assessment should be done **before** any potentially hazardous work commences
  - A hazard is anything that could cause harm to you when interacted with, this could be anything from a chemical irritant to a trip hazard on the floor
  - Think about how you work, how equipment is used, what chemicals are being used and anything else that could cause an accident or injury
  - For equipment and tools, the manual can provide a good place to start
  - For a process, you can ask colleagues for help during training and method development
2. Assess the risks
  - Risk is a combination of the likelihood that something will happen and the consequence of that thing happening
  - As an example, a trip hazard in an area that is out of the way and has low foot traffic is much lower **risk** than a trip hazard on a main walkway
  - To assess risk, take the hazards you identified and think whether they could pose any danger to you or the people around you, then think how likely that danger is to occur
3. Control the risks
  - If you identify any hazards that could be dangerous, think about how you can reduce the risk of injury
  - You can do this by either changing your method to exclude the hazard or put a control into place to manage the hazard

# Risk Assessment Basics

- For example, if a chemical has toxic fumes, you could use an alternative chemical that is less hazardous or perform your experiment in a fume hood
  - Although research is often new and ground-breaking, the risks are normally common and there may be controls that are already established
4. Record your Risk Assessment
    - Once you have thought through every part of your experiment or process, including how to **handle** and **dispose** of any chemicals that you order, you should record this in our risk assessment portal here: [CUED Risk Assessment App - Power Apps](#)
    - You may also wish to keep a physical copy of your risk assessment available to refer to during your process
  5. Review controls periodically
    - If your experiment will last for more than a year you will need to review and reinstate your risk assessment every 12 months, equally if you find a control is not as effective as you would like you should update your risk assessment and implement a more appropriate control.

The main purpose of a risk assessment is not to tick a health and safety box, it is to provide a framework to **practically** reduce the risk of injury for lab users during experiments and processes.

The university has online training available should you want to learn more about this topic, the link below would be an excellent starting point as it covers chemical safety and has a risk assessment section at the end:

<https://www.training.cam.ac.uk/ohss/event/5902490>

The University Safety Office also has a departmental safety hub where you can find more general information: [Department of Engineering](#)

If you require any assistance please do not hesitate to reach out to the technical team or safety manager:

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