



Risk Assessment

Module 2



Health & Safety
Essentials

Registered charity number 207890

Identifying the hazards

The first step in practical assessment is to identify the hazards that are present. There are many different types of hazards. These can be physical, chemical, biological, ergonomic etc.

For example:

Physical Hazards – electricity, noise, radiation, fire/heat, light, strong magnetic fields, weight, vibration, tools, equipment, moving parts of machinery, potential and kinetic energy.

Chemical Hazards – toxic, corrosive, harmful, irritant, oxidising, explosive etc.

Biological Hazards – bacteria, virus, micro organisms

Ergonomic Hazards – related to lifting, musculoskeletal, manual handling, design of workstation

Psychosocial – bullying, discrimination, violence and stress, etc

Natural phenomena – weather, wind, frost, ice, snow (i.e. snow, ice, fog)

Hazards can occur across the whole organisation or be specific to a work activity. If organisation wide hazards are identified first and associated risk assessments completed, then risk assessments of individual work activities will be simplified, as some of the more important risks will have already been addressed.

It is also important to look closely at how people could be harmed, and often as you work in an area every day, it is easy to overlook some hazards.

It is suggested in the HSE Guidance 'Five Steps to Risk Assessment' INDG163,¹⁵ that the following steps should be taken to identify the hazards associated with your work activity:

- Walk around your workplace and look at what could reasonably be expected to cause harm.
- Ask your colleagues or their representatives what they think. They may have noticed things that are not immediately obvious to you.
- Visit the HSE website (www.hse.gov.uk). HSE publishes practical guidance on where hazards occur and how to control them. There is much information here on the hazards that might affect your area.
- If you are a member of an organisation (e.g. RSC¹⁶) contact them and review the guidance that is published by them.
- Check manufacturers' instructions or data sheets for chemicals and equipment, as they can be very helpful in spelling out the hazards and putting them in true perspective.
- Have a look back at accident and ill health records, as these often help to identify less obvious risks.
- Remember to consider the risk of chronic ill health from long-term hazards (such as high levels of noise or exposure to harmful substances).

There are different ways to identify hazards: some are proactive, some reactive. In the laboratory being proactive means:

- Making a careful inspection of the area;
- Reviewing the process (in a systematic stepwise manner);
- Conducting tours;
- Reviewing data sheets
- Conducting reviews of paperwork and literature; and
- Looking at the area during the times of use (including out of hours work).



It is also important to consider that some hazards that don't remain in place for long such as those due to unforeseen circumstances, other people using the area, cleaning activities, maintenance work, or new persons involved.

Area inspections are not always very good at identifying hazards as they will not identify unsafe acts, lack of training, inadequate procedures. Familiarity with the area and regular tours will give you a feel for whether procedures are being followed e.g. wearing glasses and lab coats in the laboratory at all times. Furthermore, it is good practice to report 'near misses' which potentially can identify hazards, sometimes overlooked, or the root causes of an incident that may not be evident on initial assessment or inspection.

Area inspections can also reveal hazards relating to the layout and use of the premises. Hazards could include damaged areas of flooring or stairs (e.g. potential for slips, trips and falls), inadequate or limited work space for the work being done, inadequate means of access to work areas, inappropriate storage of materials, inadequate lighting, etc.

You may not cover every eventuality in the main assessment, which is why each time you carry out the process or enter the area; you should be familiar with what is contained in the assessment. You need to be able to ask yourself, "has anything changed today that has created new hazards or risks not yet considered"?

