

The risk assessment process

If you are completing a risk assessment, follow this simple process:

Step 1 - [Look for hazards](#)

Step 2 - [Decide who might be harmed and how](#)

Step 3 - [Analysing the risk](#)

Step 4 - [Record the findings and put measures in place to control the risks](#)

Step 5 - [Implementing and prioritising action](#)

Step 6 - [Communicate the findings to staff](#)

Step 1 - Identifying hazards and related activities

The definition of a hazard is "something that has the potential to cause harm" including ill health, injury, loss of product and/or damage to plant and property.

Examples of hazards	
Violence	Poor housekeeping
Moving parts of machinery	Noise
Work at height	Ejected materials
Pressure systems	Vehicles
Electricity	Low or high temperatures
Poor lighting	Manual handling

Previous incident report forms may highlight some of the specific hazards faced by your work.

Step 2 - Identifying people at risk of harm

Identify groups or people who may be affected.

Examples of people at risk	
Employees	Members of the public
Temporary workers	Tenants
Students	Volunteers
Children	Customers
Shift workers	Cleaners
Contactors	Visitors
Relief workers	

Pay particular attention to vulnerable people

Examples of vulnerable people:	
New or expectant mothers	Young people
Staff or customers with learning difficulties	Inexperienced staff
Staff, customers or visitors with disabilities	Lone workers
Non-English speakers	Students

If the risk assessment is job-specific, use the individual's job title, not their name. This means the assessment is still relevant if the employee leaves the University.

Possible outcomes

How could people be harmed by these risks?

Examples of possible outcomes	
Cuts and abrasions	Personal health problems
Broken or dislocated bones	Absorbing substances
Sprains and strains	Asphyxia
Unconsciousness	Noise injuries
Electrocution	Spinal injuries
Burns	Drowning
Scalds	Crushing or trapping
Flying or falling objects	Contagious disease

Step 3 - Analysing the risk

To help analyse risk, the University uses a matrix scoring system. Numerical scores are given to the severity and likelihood of risks and these scores are multiplied to get a rating for the risk. This means the risk rating is a measure of the likelihood that harm from a particular hazard will occur, taking into account the possible severity of such an occurrence.

$$\text{Risk} = \text{Severity} \times \text{Likelihood}$$

For the initial risk evaluation, consider the risks identified in the worst case scenario before any controls are applied.

Electricity is a hazard, for example - It can kill but the risk of it doing so in an office environment is low providing the components are insulated, the metal casing is properly earthed and appliances are used correctly and tested.

Severity of the hazard

The severity is expressed in terms of the effect on the person, whether injury or ill health, and ranging from minor injury to death. Factors affecting the severity of the effects include:

- The number of people who may be affected
- Any individuals particularly at risk because of disabilities or medical conditions
- The properties of materials, speeds, heights and weights
- The amount and type of energy involved.

Hazard severity	Definition	Points rating
Very high	Causing multiple deaths and widespread destruction eg. fire, building collapse.	5
High	Causing death, serious injury or permanent disability to an individual.	4
Moderate	Temporary disability causing injury or disease capable of <u>keeping an individual off work for three days or more</u> and reportable under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995).	3
Slight	Minor injury, which would allow the individual to continue work after first aid treatment on site or at a local surgery. The duration of the stoppage or treatment is such that the normal flow of work is not seriously interrupted.	2
Nil	Very minor injury, bruise, graze, no risk of disease.	1

Likelihood of the risk

The likelihood should be based on the worst case scenario, ranging from a remote possibility to the inevitable. Factors affecting the likelihood include:

- Number of times the situation occurs
- Location of the hazard
- Duration of the exposure
- Environmental conditions
- Competence of the people involved and
- The condition of equipment.

Hazard likelihood	Definition	Points rating
Inevitable	If the work continues as it is, there is almost 100% certainty that an accident will happen, for example: <ul style="list-style-type: none">• A broken stair or broken rung on a ladder• Bare, exposed electrical conductors• Unstable stacks of heavy boxes	5
Highly likely	Will happen more often than not. Additional factors could precipitate an incident but it is still likely to happen without this additional factor.	4
Possible	The accident may occur if additional factors precipitate it, but it is unlikely to happen without them.	3
Unlikely	This incident or illness might occur but the probability is low and the risk minimal.	2
Remote possibility	There is really no risk present. Only under freak conditions could there be any possibility of an accident or illness. All reasonable precautions have been taken - This should be the normal state of the workplace.	1

Risk rating

By multiplying the scores for the severity and likelihood, the risk is given a rating ranging from 1 (no severity and unlikely to happen) to 25 (just waiting to happen with disastrous and wide spread results).

This is a qualitative way to determine the urgency of actions and what priority to act on them. This is not intended to be an objective or scientific process but just helps assessors and managers to prioritise and put in place additional control measures.

Risk Rating Score	Action
1-4	Broadly acceptable - No action required
5-9	Moderate - reduce risks if reasonably practicable
10-15	High Risk - priority action to be undertaken
16-25	Unacceptable -action must be taken IMMEDIATELY

Step 4 - Preventative control measures

Measures to control risks should be fully integrated into procedures, equipment and design of work. This will ensure health and safety requirements are satisfied as well as benefiting the quality of service and output.

An essential part of the assessment is to look at what controls are already in place and judge whether or not they are adequate. For example, do they:

- Meet legal requirements?
- Apply best practice or recognised industry standards? - precautions that are in place should be referenced to the manufacturers manual and approved codes of practice/guidance notes from the Health and Safety Executive. (If unsure contact health and safety services).
- Apply up-to-date technology?
- Reduce risk as necessary?

For many areas of health and safety, best practice guidance documents are available which identify the relevant controls necessary. In this case the relevant publications should be cross referenced in the risk assessment.

The hierarchy of control

Control measures identified by the risk assessment, whether protective or preventative, must be implemented in line with the following hierarchy of control. In many cases a combination of control measures will be needed.

- **Elimination** - is it possible to avoid the risk altogether? (eg. requesting a delivery service to an office instead of reception to prevent staff from manual handling.)
- **Substitution** - change the way you do the work, but take care not to introduce new risks (eg. using a safer chemical).
- **Isolation** - combat risks at the source and prevent access to the hazard (eg. guarding machinery).
- **Reduction** - reduce the number of employees at risk or reduce the extent of exposure.
- Use **information (written procedures, safe systems of work), instruction, training and supervision** - ensure employees understand what they must do and when, how they must do it and what activities are prohibited.
- Use **personal protective equipment**, but only as the last resort and only after all other measures have been implemented.

Assessors may need to seek further information or guidance from health and safety services if they are unable to decide whether the risk is adequately controlled or not.

If you think the control measures are insufficient to reduce the risk to an acceptable level, further controls will be required.

Step 5 - Implementing and prioritising action

Once any control measures have been identified, management must decide what action, if any, to take based on the recommendations. For high risk activities this would include a decision about whether the work should actually take place.

- Where extra measures are needed, establish clear timescales, responsibilities and resources for carrying out the controls. For large events or where a range of measures is required an action plan may be needed, giving further details on the programme for putting the controls into action.
- Where no further measures are needed, documented reasons are required.
- Where it is impossible to put all control measures into action at the time of assessment, adequate steps must be taken in the meantime to minimise risks.

In some cases, managers and staff may not agree on the proposed control measures. If the relevant senior manager is confident the control measures in place are acceptable, they should sign off the risk assessment. In this case the activity should be closely monitored and records of any correspondence should be kept.

If an incident happens that is related to the risk assessment, it is necessary to reassess the risks and put further precautions in place if possible. If the manager is concerned about the level of risk but does not have adequate resources to combat it, the matter should be referred to the dean, director or head of school or service who should sign off the assessment.

Step 6 - Communicating the findings

Information on risks and control measures identified by the risk assessment should be communicated to employees and others as appropriate - Make copies of risk assessments available to all the employees concerned.

The completed risk assessment should provide clear information about hazards, risks and control measures to the employees carrying out the work. Further direction from supervisors may also be required to ensure measures are actually implemented and understood in the context of the particular work and that the measures are effective.

This communication must be understandable by the audience and may require the use of photographs, diagrams or a translator. You could use the information in the following ways:

- Induction training
- Safe systems or work
- Safety procedures
- Hand books
- Team briefings
- Tool box talks
- Supervision meetings or other management meetings
- Specific or general instruction or training sessions
- Hands on training

Information provided to employees and others involved in the work should include:

- The nature and extent of risks, including:
 - Factors that may influence risk
 - Factors that may increase risk

- The control measures to be adopted, including
 - Reasons for the measures
 - How to use them properly
 - What to do and who to contact if things go wrong or change significantly

- The reasons personal protective equipment (PPE) is required
 - Circumstances when PPE is required
 - Limitations of PPE
 - Arrangements for issuing, using, storage and replacing PPE