# Risk assessment procedure

## Purpose and scope

* This procedure outlines a process to identify hazards from undertaking tasks, determine the risk rating for each hazard, implement risk controls and review the controls.
* This procedure applies to everyone at (your business name).

## Definitions

**Hazard:** is a situation or a thing that has the potential to hurt or harm a person

**Risk:** the likelihood and consequences of the hazard causing harm

## A risk assessment is carried out when

* There is uncertainty about how a hazard may result in injury or illness
* The work activity involves a number of different hazards and there is a lack of understanding about how the hazards may interact with each other to produce new or greater risks, or
* There are changes at the workplace that may impact on the effectiveness of control measures or may require new control measures such as the introduction of a new process or piece of equipment.

In some circumstances, a risk assessment will assist to:

* identify which workers are at risk of exposure
* determine what sources and processes are causing the risk
* identify if and what kind of control measures should be implemented, and
* check the effectiveness of existing control measures.

A risk assessment is mandatory under the WHS Regulations for certain activities that are high risk such as, but not limited to; high risk construction work, entry into confined spaces and live electrical work.

Some hazards that have exposure standards, such as noise and airborne contaminants, may require scientific testing or measurement by a competent person to accurately assess the risk and to check that the relevant exposure standard is not being exceeded (for example, by using noise meters to measure noise levels and using gas detectors to analyse oxygen levels in confined spaces).

A risk assessment may be appropriate to reuse in situations where all the hazards, tasks, things, workers or circumstances are the same and no worker or other person will be exposed to greater, additional or different risks. However, as stated above, if there are any changes at the workplace, a new risk assessment should be performed.

## Procedure

1) Identify all of the risks associated with the hazard. Use the following Examples of Common Hazards as a prompt.

2) Assess the risk/s using the following Risk Assessment Matrix

3) Determine the appropriate control/s to mitigate the risk of the hazard causing harm as far as is reasonably practicable. Use the following Hierarchy of Control to implement the most effective controls. Document the results on the Risk Assessment Form.

4) Determine the priority or urgency with which the hazard should be controlled. Use the Risk Assessment Action Plan to list the hazards and track the implementation of the controls.

## Risk action priority

Here are some suggested action timelines. The risk level that remains after any applicable controls are applied is called residual risk. The residual risk could still be at a high level (extreme, very high, high) even after controls are applied. In this case the business would need to accept the risk if there are no other practicable controls available.

* Extreme Risk – immediate action required
* Very High Risk – prioritised action within a month
* High Risk – prioritised action within three months
* Medium Risk – planned action required
* Low Risk – manage with current procedures

## Examples of common hazards

|  |  |
| --- | --- |
| **Biological** – infectious diseases, COVID-19, hepatitis, legionnaires’ disease, Q-fever, HIV/AIDS, allergies, chicken pox | **Chemical** – burns, breathing, explosion, eyes, ingestion, suffocation, passive smoking |
| **Ergonomic** – musculoskeletal (MSD) injuries due to: prolonged posture, repetitive movements, excessive force, awkward movements, awkward controls, sedentary or static work, vibration. In addition poor lighting and noise.  | **Physical** – burns from heat / friction / radiation, cuts / punctures, crushing, shearing, entanglement, fire, explosion, high pressure fluid, slips / trips / falls, vibration, falls from height, thermal comfort, environmental, noise, radiation |
| **Psychosocial** – *Culture* - bullying / harassment, poorly managed change, organisational injustice; inadequate reward and recognition*Job* - excessive or prolonged time pressure, poorly defined work roles, lack of job control, shift work / hours of work, fatigue, remote / isolated work, too much or too little work / responsibility, poorly designed or managed work environment, violence and aggression, traumatic event, poor or unequal recognition and reward*Support* - lack of supervisor and/or co-worker support, lack of or inadequate training / competency | **Health and Wellbeing** – low fitness, ageing workers, overweight workers, poor eating and drinking habits, alcohol / drugs at work and home, sleep disturbances, work / life balance, poor mental health, heart disease, increased sick days |
| **Electrical** – contact with exposed terminals, overloaded circuits, damaged wires, water near circuits, poor insulation |
| **Striking** – vehicles, mobile and fixed plant, powered and unpowered equipment, uncontrolled part or object, machine action, disengaged item |

Note re psychosocial factors and hazards:

* It is important that risk factors are not viewed in isolation as they can interact with each other. For example, high demands, low control, low support = a highly stressful work environment. However, when high demands are combined with high support, the high support can moderate the level of work-related stress etc.
* Once you have identified the hazards (it should be emphasised that this is only the first step in the risk management process), you need to look at how you can eliminate or minimise risks – refer to the next step (e.g. assess risk) in the process.
* Many workplaces are good at identifying the psychosocial hazards, but don’t go to the next step of doing something about it; or don’t examine them in a proper and thorough risk management fashion.
* Please note psychological risk and injury is cumulative. The likelihood of injury increases over time if the risks are not controlled adequately.

## Risk assessment matrix

The following table provides a Risk Rating once the Likelihood and Consequence are determined:

|  |  |
| --- | --- |
| **Risk Matrix** | **Consequence** |
| **Insignificant**Near MissNot life altering | **Minor**First AidNot life altering | **Moderate**Medical Treatment < 2 days lostTemporary effect on life | **Major**Medical Treatment > 2 days lostPermanent effect on life | **Catastrophic**Death or permanent injury |
| **Likelihood** | **Very Likely**Almost Certain | Low | High | Very High | Extreme | Extreme |
| **Likely**Strong Possibility | Low | Medium | High | Very High | Extreme |
| **Possible**Once a Year | Low | Medium | Medium | High | Very High |
| **Unlikely**Once in 3 years | Low | Low | Medium | High | Very High |
| **Highly Unlikely** | Low | Low | Low | Medium | High |

## Risk control

Where a risk to health & safety has been identified, controls must be introduced to reduce risk levels to an acceptable level. When introducing a control measure, consideration should be given to what is “practicable” in each instance. “Practicable” means having regard to:

* the severity of the hazard or risk in question
* the knowledge about the hazard or risk and ways of removing or mitigating that hazard or risk
* the availability & suitability of ways to remove or mitigate that hazard or risk
* the cost of removing or mitigating that hazard or risk

The following Hierarchy of Control to control risk should be adopted.

* **Elimination** of the hazard or risk (most effective)
* **Substitution** of the plant or activity to one with a lower level of risk
* **Engineering** redesign or alter the plant or equipment to ensure the work is performed safely
* **Administrative** procedures/ instructions to ensure the work is performed safely
* **Personal Protective Equipment** (PPE) should always be the last control option (least effective)

A combination of controls may be appropriate, however the solution should follow the Hierarchy of Control.

## Hierarchy of risk control

**Level 1**

Eliminate the hazards

**Level 2**

Substitute the hazard with something safer

Isolate the hazard from people

Reduce the risks through engineering controls

**Level 3**

Reduce exposure to the hazard using administrative controls

Use personal protective equipment

MOST

LEAST

Reliability of control measures

HIGHEST

LOWEST

Level of health and safety protection

## Reference

[Code of Practice – How to Manage Work Health and Safety Risks](https://www.safework.sa.gov.au/__data/assets/pdf_file/0007/136267/How-to-manage-work-health-and-safety-risks.pdf)