



Personal Protective Equipment

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1. Introduction

Examples of Personal Protective Equipment (PPE) include earmuffs, respirators, face masks, hard hats, gloves, aprons and protective eyewear. This guideline supports the University procedure **Managing Workplace Health and Safety Risks** by outlining the recommended practices for the utilisation of PPE, including correct selection, supply, use, replacement, maintenance, training and storage.

The use of PPE as a lower level control measure for safety risks under the hierarchy of controls is described in the approved WHS Code of Practice *How to manage work health and safety risks*. PPE relies on human behaviour and supervision. If used on its own, or only in conjunction with administrative control measures, it tends to be least effective in minimising risks. PPE limits exposure to the harmful effects of a hazard but only if fitted and worn correctly.

PPE should only be used:

- when there are no other practical control measures available (as a last resort)
- as an interim measure until a more effective way of controlling the risk can be used
- to supplement higher level control measures (as a back-up).

The use of PPE should be integrated into the systematic management of the hazard/risk being addressed.

2. Guideline

The need to provide PPE is determined from the risk management process of hazard identification, risk assessment and development of risk control measures using university forms available in support of the procedure for Managing Workplace Health and Safety Risks.

PPE are to conform to any legislative, Australian Standard and/or industry standard requirements or guidelines. A list of standards relevant to PPE is provided at the end of this guideline. As new standards are often introduced and existing standards are regularly reviewed and updated, you should visit Australian Standards Online to check what standards are current before referring to a standard.

PPE items should be purchased from suppliers who ensure that only approved (Australian Standard or equivalent marking) PPE will be provided and include the following services:

- advice on PPE
- information relating to any test results
- advice on personal fitting, use, cleaning, maintenance and storage of PPE
- a range of sizes (where appropriate)
- information on the availability and need for replacement parts
- demonstration of the PPE
- immediate replacement of any defective PPE.

Consideration shall be given to the need for protecting persons who are working nearby or passing close to hazardous areas.

When is PPE needed

PPE shall be provided and worn in the following scenarios (for example):

- Head protection in the form of a safety helmet where there is a possibility that a person may be struck on the head by a falling object, a person may strike his/her head against a fixed object, or there may be inadvertent head contact with electrical hazards.
- Eye protection where a risk of eye injury exists. Typical hazards might include flying particles, dust, splashing substances, harmful gases, vapours, aerosols, and high intensity radiation from welding operations or high-powered lasers.



- Hearing protection where a risk of noise induced hearing loss exists. The need for hearing protection shall be assessed from the conduct of noise surveys in potential noise hazard areas.
- Respiratory protection, after all other practicable measures have been taken to provide control measures, to minimise potential exposure to an atmosphere that is, or may be, harmful to health.
- Protective clothing and sunscreen for personnel who are required to work outdoors and are exposed to the sun's rays for continuous periods in a day. Direct exposure of the skin to UV radiation from outdoor work shall be minimised by providing hats, long sleeves/trousers and an adequate supply of sunscreen.
- Hand protection where there is an identified hazard associated with a potential for hand injury. A list of hazards shall be compiled for each workplace and suitable hand protection obtained to minimise risk.
- Protective footwear (safety footwear) where the nature of the work exposes the employee to a medium to high risk of injury to feet, e.g. occupations such as workshop/maintenance and gardening personnel.
- High visibility safety vests where there is a risk of injury associated with working on or near roadways, or near moving traffic or moving plant.

Compliance with local requirements to use PPE by individual(s), including staff, students, visitors and volunteers should be monitored. Where there is non-compliance with requirements, this shall be investigated by the local manager/supervisor to ascertain the reason(s) and corrective action taken to prevent a recurrence.

PPE within workplace risk management programs

All University workplaces shall address the proper use of PPE where identified as a control measure in their risk management programs, outlining:

- approved PPE items and where they shall be worn
- who is required to wear it and whether it is provided for general or exclusive use
- the type of PPE that students are required to provide themselves for practical studies or fieldwork
- how PPE will be issued
- the initial and ongoing training and instruction needed
- specific precautions that apply, e.g. cleaning/replacement
- replacement arrangements
- who is to clean and/or service the PPE
- signage required at the point of required use
- what supervision will be provided
- what regular inspections of PPE are necessary
- storage arrangements.

Standard prescription glasses (e.g. reading glasses) are not considered suitable for eye protection as they do not provide suitable side protection or impact resistance. Standard prescription glasses may be worn when also wearing safety glasses which have been designed to fit over the top of prescription glasses. Staff and HDR students who normally wear prescription lenses and who are engaged in work where eye protection is required and where it is not practical or suitable to wear safety glasses over the top of their normal prescription eyewear, should be reimbursed by their workplace for the actual expenditure incurred (e.g. out-of-pocket expenses) for the provision of prescription safety glasses that comply with AS/NZS 1336 and/or AS/NZS 1337.

Respiratory protection is designed to help reduce wearer's respiratory exposure to airborne contaminants, however if the respirator does not fit correctly or is not adequately maintained, it may not provide the required level of protection. Fit checking involves a quick check – each time the mask is put on – to ensure that the respirator is properly applied, that a good seal is achieved and there are no gaps between the respirator and face (refer to Appendix 1 - Respirator (mask) Fit Check Guide for further information). Re-usable respirators must be maintained in accordance with the manufacturer's instructions, including regular replacement of filters, and cleaning and inspection to ensure the respirator is clean and functional. Filters must be permanently marked with the date of issue. Where a risk assessment determines that an individual facial fit test is required to determine the appropriate respiratory protection device, the fit test should be performed at least annually or, whenever there is a change in the wearer's facial characteristics or other features which may affect the facial seal of the respirator.



All persons required to use PPE shall be provided with training or instruction prior to use and ongoing training/instruction where necessary.

3. University Documents/Forms

For further advice on managing risks in university workplaces, including procedures, guidance, forms and training courses, please visit the Safety & Wellbeing website.

[Safety & Wellbeing website](#)

- Managing Workplace Health and Safety Risks
- Safe Management of Chemicals
- WHS2 - General Risk Assessment
- WHS12 - Chemical Process Risk Assessment & Control
- WHS41 - Plant & Equipment Risk Assessment

4. References

The use of PPE is described in a wide range of codes and standards applying to the management of particular work health and safety risks. To ensure you are referring to the correct and most up to date publications you should visit the following websites.

[SafeWork SA Resources](#)—WHS legislation and Approved Codes of Practice:

- Work Health and Safety Act 2012 (SA)
- Work Health and Safety Regulations 2012 (SA)
- How to Manage Work Health and Safety Risks
- Managing Risks of Hazardous Chemicals in the Workplace
- Managing Risks of Plant in the Workplace
- Managing Noise and Preventing Hearing Loss at Work
- Confined Spaces
- Welding Processes.

[Australian Standards Online](#) (UniSA subscription)

- AS1319: 1994 (R2018) Safety signs for the occupational environment
- Standards Australia SAA HB9: 1994 – Occupational personal protection
- AS/NZS 1269.3: 2005 (R2016) Occupational noise management – hearing protection program
- AS/NZS 1270: 2002 (R2014) Acoustics - Hearing protectors
- AS/NZS 1336: 2014 Eye and face protection - Guidelines
- AS/NZS 1337 (series): 2010 Personal eye protectors - Eye and face protectors for occupational applications
- AS/NZS 1338 (series): 2012 Filters for eye protectors
- AS/NZS 1715: 2009 Selection, use and maintenance of respiratory protective equipment
- AS/NZS 1716: 2012 Respiratory protective devices
- AS/NZS 1800: 1998 Occupational protective helmets – Selection, care and use
- AS/NZS 1801: 1997 Occupational protective helmets
- AS/NZS 1891 (series): 2007 Industrial fall-arrest systems and devices
- AS/NZS 2161 (series): 2016 Occupational protective gloves
- AS/NZS 2210.1: 2010 Safety, protective and occupational footwear – Guide to selection, care and use
- AS 2225:1994 Insulating gloves for electrical purposes
- AS/NZS 4399: 2017 Sun protective clothing - Evaluation and classification
- AS/NZS 4453.3: 1997 (R2017) Protective Clothing for users of hand-held chainsaws – Protective legwear
- AS/NZS 4543 (series): 1999 Protective devices against diagnostic medical X-radiation
- AS/NZS 4602.1: 2011 High visibility safety garments – Garments for high risk applications



Respirator (mask) Fit Check Guide

The manufacturer's instructions for proper wearing of a respirator and fit checking of individual brands and types of P2/N95 respirators should be referred to at all times.

Donning the respirator

- Prior to donning the respirator, check that it is not damaged.
- Follow the manufacturer's instructions for donning the respirator.
- Conform the respirator to your face by pressing with your fingers across the bridge of the nose until it fits snugly.

Performing the fit check (commonly called the user-seal check)

- The fit check includes both positive and negative pressure seal checks and should be performed as per the specific manufacturer's instructions for each type of respirator.
- Check the positive pressure seal of the respirator by exhaling. If the seal is good, the respirator should bulge slightly when you exhale. If air escapes between your face and the respirator, you do NOT have a good facial seal. Re-adjust the respirator and repeat the fit check process.
- Check the negative pressure seal of the respirator by inhaling. The respirator should collapse slightly when you inhale. If the respirator is not drawn in towards the face or air leaks, you do NOT have a good facial seal. Re-adjust the respirator and repeat the fit check process.
- If you are unable to achieve a good facial seal do NOT proceed with your activity. Possible reasons include:
 - the respirator has not been put on properly e.g. headbands are incorrectly positioned, hair or earrings are caught in the seal
 - glasses or face-shield are interfering with the seal (you do not have a seal if they fog)
 - the respirator is the incorrect size or type for your face
 - workers who have facial hair (including a 1–2 day beard growth) must be aware that an adequate seal cannot be guaranteed between the respirator and the wearer's face.¹
- Speak to your supervisor if you cannot achieve a good facial seal after addressing the possible reasons listed. An alternative style or size of respirator may need to be sourced.

Resources

A PowerPoint presentation that demonstrates fit checking is available from [Queensland Health](#).

1. National Health and Medical research Council (NHMRC) for the Australian Commission on Safety and Quality in Healthcare. *Australian Guidelines for the Prevention and Control of Infection in Healthcare: 2010*. Available from: <https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2010>