



*This document is under review, if you have any input, please email safety@unsw.edu.au.

HS419 Outdoor Workers Guideline

Introduction

The purpose of this document is to ensure that for outdoor personnel, their work is organised such that their exposure to solar radiation and heat stress hazards are minimised.

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1. Scope

This applies to all UNSW staff and students (and visiting staff and students) who work outdoors

2. General Heat and Radiation Hazards

The general Heat and Radiation Hazards from working outdoors are

- de-hydration.
- sunburn to skin and eyes.
- skin lesions/disorders e.g., solar keratoses.
- heat stress.
- increased risk of cataracts from UV radiation.
- skin cancer.
- other specific hazards related to the task e.g., hot surfaces (task risk assessment to identify).

Some general measures that can be taken to reduce exposure include:

1. Scheduling work outside the hottest time of day.
2. Performing work under shade where possible.
3. Taking scheduled rest breaks in times of extreme heat.
4. Drinking fluids.
5. Using sunscreen, hats with neck flaps, approved sunglasses, loose fitting cotton long sleeved shirts, long trousers, or knee length shorts.

3. Scheduling of Work

Outdoor heavy manual work (e.g., shoveling) can put extra stress on the body particularly when the temperature reaches 30°C. In these cases, work should be scheduled so that it is either performed under shade, indoors or is physically less demanding. (E.g., mowing, moving hoses). Staff should also be informed of the need to protect themselves on days when it is cloudy or when exposure to the sun may not be as obvious such as working near reflective surfaces such as water and bright buildings. Similar scheduling and sun protection arrangements need to be made under these circumstances.

Staff and supervisors should discuss the tasks to be performed and organise the work schedule around the temperature.

4. Providing shade

Where possible, natural shade from trees, buildings and other structures should be used. If there is no natural shade, canopies, tents or other easily erected shade structures should be erected. Vehicles and machinery such as tractors and mowers may be able to be fitted with shade canopies.

Vehicles should be fitted with air-conditioned cabs where possible.

5. Rest Breaks

Workers performing manual work during hot weather should take regular breaks as needed. How often they should take a break and for how long will depend on the physical nature of the task and their own physical health and fitness level. The break should also provide an opportunity to keep up their fluid intake. New or inexperienced workers may need to take more frequent rest breaks until they become acclimatised to the conditions.

The length of time needed for rest breaks can also depend on whether rest breaks can be taken in a cooled or air-conditioned building, in which case shorter rest breaks may be adequate.

Rest breaks ideally should be taken in a cool place as close as possible to the place where the work is being carried out. If the work is some distance from their base, the staff should be allowed to go inside the nearest cool building (air-conditioned building if possible) or shaded area to take a rest and have cool drinks. They should not have to walk a long distance nor rest in a hot, unshaded location. SHORT work periods followed by SHORT rest breaks are better than long work periods followed by long rest breaks.

6. Drinking Fluids

Workers need to take regular cool drinks when working in the heat to replace sweat lost and avoid dehydration. When working at a distance from their base, they should take an insulated flask (provided by the University) for a handy supply of cool liquid, preferably water. Cool water dispensers should be provided in appropriate locations. An electrolyte replacement drink (e.g., Gatorade) can also be taken if either the work or the temperature conditions or both are likely to cause excessive sweating.

7. Protection

Sunscreen, sunglasses, and hats which have been approved by the local Health and Safety Committee, should be made available to all staff who are required to work outdoors. Students should be made aware that they themselves are responsible for providing their own protection. *The supervisor could carry some spare sets of such protection if possible as contingency.*

(a) Clothing

Outdoor workers should be provided with:

- sun protective work clothing
- shirts should be loose fitting and long sleeved with collars
- long trousers or skirts are best. If shorts must be worn, they should be to the knee

Recommended clothing for protection of the skin from UV light is loose-fitting and allows sweat to evaporate. Closely woven fabrics of light colours are recommended. Clothing that offers excellent protection with an ultraviolet protection factor (UPF) rating of 40, 45, 50 or 50+ (as classified by AS/NZS 4399:1996) is recommended. Choose clothing with UPF 50+ for best protection.

Cotton is the best fabric. Long-sleeve shirts and long trousers give good skin protection. The remaining exposed parts of the body should be protected by other means. Fingerless gloves offer good protection to the hands for working outdoors.

(b) Hats

These should shade head, face neck and ears. Hats should have a broad brim at least 8 to 10 cm wide and made of a close weave material in a light colour, for example a white "sailing" hat. Foreign legion caps are good. A neck flap should be fitted to the hat to protect the neck during bending. This flap should extend



around the sides of the hat to cover the ears also. A broad brim and flap should be attached to hard hats for outdoor work.

(c) Sunscreens

The recommended sunscreen cream is a broad spectrum, waterproof type with a high sun protection factor (30+). Sunscreens with an SPF 30 and SFP 15 screen approximately 96% and 94% of UV radiation respectively when applied correctly. For maximum effectiveness, sunscreens should be applied generously to clean dry skin at least 20 minutes before going out into the sun. They should be wiped on rather than rubbed into the skin, and they should be reapplied at least every 2 hours. When profuse sweating occurs, sunscreen creams may need to be reapplied more often. Lip protection is also important so an SPF 15+ lip balm should be regularly applied to the lips. A check should be kept on sunscreen expiry dates as they are only good for about three years. Store in a cool place out of the sun. Remember sunscreen does not offer 100% protection and should always be used in conjunction with other protective measures such as clothing, hats, and sunglasses.

(d) Sunglasses

The recommended sunglasses protect against UV light penetration at the front and sides of the face and give impact protection. These should fit closely to the face and meet the requirements of Australian Standard 1-67:2003 Sunglasses and fashion spectacles. Wrap around style sunglasses provide the best protection. Effective sunglasses can screen up to 99% UV radiation. *You should double check with the supplier that both the frames and the lenses are manufactured to this standard (sometimes only the frames are).* The risk assessment for the task should also consider whether there are projectile hazards which may require a greater level of impact resistance than normal sunglasses.

8. Health Monitoring

Initial health checks on commencement of employment then regular health checks may be arranged to monitor skin damage. Early detection of skin damage is essential and more readily treated than progressed damage. Refer to the UNSW Pre-employment checking matrix.

<http://www.hr.unsw.edu.au/services/recruitment/Pre-employmentCheckingMatrix.pdf>

9. Acknowledgements

WorkCover NSW: Skin Cancer and Outdoor Workers guideline1998

[Work Health and Safety Act 2011 \(nsw.gov.au\)](http://www.nsw.gov.au/work-health-and-safety-act-2011)

[Work Health and Safety Regulation 2017 \(nsw.gov.au\)](http://www.nsw.gov.au/work-health-and-safety-regulation-2017)

[List of codes of practice | SafeWork NSW](http://www.nsw.gov.au/work-health-and-safety-regulation-2017)

Appendix A: Version Control

| Version | Authorised by | Approval Date | Effective Date | Sections modified |
|---------|--|---------------|----------------|--|
| 1.0 | Director Human Resources | 01/11/2006 | 01/11/2006 | Formatting changes only. Released for consultation. |
| 2.0 | Director Human Resources | 01/01/2007 | 01/01/2007 | No changes from consultation process |
| 2.1 | Director Human Resources | 16/12/2010 | 16/12/2010 | Revised guideline in line with new University template |
| 2.2 | Director Human Resources | 1 April 2013 | 1 April 2013 | Clothing, hats and sunscreen updates |
| 2.3 | Director, UNSW Safety and Sustainability | 30 April 2014 | 30 April 2014 | Reviewed for administrative updates |
| 3.0 | Director, Risk & Safety Management | 8 August 2022 | 8 August 2022 | Reviewed for administrative updates. Updated template. Removed from Governance |

Updates to this document

Any suggestions, recommendations or updates to this document should be emailed to safety@unsw.edu.au with the email header stating *GUIDELINES UPDATE HS419*.

