

Sun Safety for Outdoor Workers: **UV Risk Assessment**

Outdoor workers are at high risk of developing skin cancer because they are exposed to up to 10 times more UV radiation from the sun than indoor workers.^{1,2}

Outdoor workers are defined as people required to work outdoors during daylight hours.³ Exposure is cumulative and irreversible, so each time workers are exposed they are increasing their risk of skin cancer.

This UV Risk Assessment Tool is aimed at a nominated supervisor or champion noting that executive leadership and management support is essential for sustainable change to occur.

It is designed to be used in combination with Cancer Council's Implementation Guide.

Following completion of this Tool it is recommended you commit to a new sun safe Action Plan.

¹ Gies P, Wright J. Measured solar ultraviolet radiation exposures of outdoor workers in Queensland in the building and construction industry. *Photochemistry and Photobiology*. 2003;78(4):342-8.

² Kimlin, M.G., Parisi, A.V. & Wong, J.C.F. (1998). Quantification of personal solar UV exposure of outdoor workers, indoor workers and adolescents at two locations in Southeast Queensland. *Photodermatology, Photoimmunology & Photomedicine*, 14, 7-1.

³ Cancer Institute NSW. *Working together – NSW skin cancer prevention strategy 2023-2030*. Sydney: Cancer Institute NSW, 2023.

Use this Risk Assessment Tool to help you determine where the greatest risk of UV radiation is in your workplace, your current sun safety control measures, and to prioritise strategies.





Tips for completing the UV Risk Assessment

- **Consider if you will be assessing one or multiple worksites or job types.**
 - If assessing multiple worksites with similar environments and practices, you can complete one overall assessment. Alternatively, you can complete one assessment per site.
 - If assessing multiple job types, consider grouping those outdoor workers with similar patterns of outdoor work.
- **To help gain organisational buy in:**
 - Involve your WH&S representative in the assessment.
 - Consult with a cross section of workers to learn about their needs, opinions and attitudes towards sun safety and the risks they may face.
 - Use these insights to guide your understanding of the risks.
- **To learn more about UV radiation and workplaces, refer to Cancer Council's [Skin cancer and outdoor work - A work health and safety guide](#).**
- **Consider how addressing some UV radiation risks can also reduce the risk of heat stress.**



SITE ASSESSMENT DETAILS

Single site

Multiple sites

Name of site(s): _____

Job title(s) assessed: _____

Assessed by: _____ Date: _____ / _____ / _____

WH&S representative involvement? Yes No

If yes, WH&S representative name _____

1. Identify where the greatest UV radiation risks are in your workplace

Tick the most relevant box to assess your workplace against UV radiation risk. These factors are known to contribute to the amount of UV workers are exposed to. Some factors contribute more than others, which is emphasised by the points* allocated.

• **Some factors may need more than one box ticked. In this case, use the box with the highest points in your subtotals.**

Add up each subtotal for environmental, work system and hazardous factors. Once completed, you will have an understanding of the level of risk for each factor, as well an overall level of risk in your workplace.

*Points sourced and adapted with approval from Sun Safety at Work Canada: UV risk assessment: operational review.

1. ENVIRONMENTAL FACTORS

How much time is spent in the sun (including in vehicles without window tinting): UV radiation is highest in middle of the day and during summer months.

<input type="checkbox"/> All day	25	Severe
<input type="checkbox"/> 10am-3pm	20	Very high
<input type="checkbox"/> 8am-10am	15	High
<input type="checkbox"/> 3pm-5pm	15	High
<input type="checkbox"/> Before 8am	5	Moderate
<input type="checkbox"/> After 5pm	5	Moderate
<input type="checkbox"/> At night	0	Nil

Season when work takes place: In WA UV radiation is high enough to damage unprotected skin most months of the year.

<input type="checkbox"/> All year	50	Severe
<input type="checkbox"/> Summer	40	Very high
<input type="checkbox"/> Autumn/spring	20	High
<input type="checkbox"/> Winter	10	Moderate

Altitude of worksite: Higher altitudes have a higher UV rating than lower altitudes.

<input type="checkbox"/> More than 1500m	10	Very high
<input type="checkbox"/> 1000-1500m	8	High
<input type="checkbox"/> 500-1000m	6	High
<input type="checkbox"/> Less than 1500m	2	Moderate

Latitude: Locations closer to the equator have higher UV radiation levels.

<input type="checkbox"/> QLD, NT, mid-north WA	12	Severe
<input type="checkbox"/> Mid-North NSW & SA	10	Very high
<input type="checkbox"/> VIC, Mid South WA	8	High
<input type="checkbox"/> TAS	4	Moderate

Total Environmental Factors:

*Locations are indicative only. UV radiation is affected by several factors including geographic location, time of day and cloud cover.

2. WORK SYSTEM FACTORS

Shade during work: Good quality shade can reduce UV radiation exposure by up to 75% and reduce heat stress.

<input type="checkbox"/> No shade	20	Severe
<input type="checkbox"/> Partial shade	10	High
<input type="checkbox"/> Total shade	5	Moderate

Shade at rest breaks: Providing shaded areas for rest breaks is important to protect staff from UV radiation, heat and rain.

<input type="checkbox"/> No shade	10	Very high
<input type="checkbox"/> Partial shade	5	High
<input type="checkbox"/> Total shade	2	Moderate
<input type="checkbox"/> Indoor break area	0	Nil

Sunburn from work activities: Sunburn can take 24 hours to show. The more frequent and severe the sunburn, the higher the risk of skin cancer. It also reduces the body's ability to cool, increasing heat stress risk.

<input type="checkbox"/> Regular occurrence	25	Severe
<input type="checkbox"/> Irregular occurrence	10	High
<input type="checkbox"/> No occurrence	0	Nil

Total Work System Factors:

3. HAZARDOUS FACTORS

The presence of reflective surfaces or photosensitising substances such as industrial chemicals, drugs, plants, fragrances and some medications will increase the risks posed by UV radiation.

Reflective surfaces: Most surfaces that reflect glare will also reflect UV radiation. New or harder smooth surfaces will reflect more UV than older and softer ones.

<input type="checkbox"/> Snow, roofing or cladding iron	25	Severe
<input type="checkbox"/> Sea surf, white house paint, open water	20	Very high
<input type="checkbox"/> Dry beach sand, concrete	10	High
<input type="checkbox"/> Asphalt, matte metal, terracotta tiles	5	Moderate
<input type="checkbox"/> Grass, soil	2	Low

Photosensitising substances: industrial chemicals and plants: Certain substances can increase sensitivity to UV radiation. The Product Safety Data Sheet (SDS) can be used to identify photosensitising substances.

<input type="checkbox"/> Regular occurrence	25	Severe
<input type="checkbox"/> Irregular occurrence	10	High
<input type="checkbox"/> No exposure	0	Nil

Total Hazardous Factors:

Add up your environmental, work system and hazardous factors sub-totals to get your final score.

Workplace risk scores	
Environmental score	
Work system score	
Hazardous score	
Overall total score	



Overall workplace risk rating		
Workplace subtotal	Score	Risk rating
	>69	Severe
	52-58	Very high
	35-51	High
	<35	Moderate

If your overall workplace risk rating is:

Severe: Your workplace presents extreme levels of UV exposure, dramatically increasing outdoor worker skin cancer risk. Employers must provide a safe environment that protects workers from harmful UV. With the participation of your teams, it is extremely important to review your current sun safety control measures, identify gaps to prioritise strategies, and commit to a new sun safe plan as soon as possible.

Very high: Your workplace presents very high levels of UV exposure, significantly increasing outdoor worker skin cancer risk. Employers must provide a safe environment that protects workers from harmful UV. With the participation of your teams, it is important to review your current sun safety control measures, identify gaps to prioritise strategies, and commit to a new sun safe plan.

High: Your workplace presents high levels of UV exposure, substantially increasing outdoor worker skin cancer risk. Employers must provide a safe environment that protects workers from harmful UV. With the participation of your teams, it is important to review your current sun safety control measures, identify gaps to prioritise, and commit to a new sun safe plan.

Moderate: Your workplace presents moderate levels of UV exposure, increasing outdoor worker skin cancer risk. Employers must provide a safe environment that protects workers from harmful UV. With the participation of your teams, review your current sun safety control measures, identify gaps to prioritise strategies, and commit to a new sun safe plan.

IMPORTANT: Due to the high levels of UV radiation across most of the year in Australia, the final score from this risk assessment does not include a 'low' risk rating. This is due to all daylight outdoor workers in Australia being exposed to a dose of UV radiation that exceeds the exposure limit according to the ARPANSA Radiation Protection Series No. 12

2. Identify what sun safety control measures are currently in place

For each control in the table below, indicate if your workplace has the control in place, and if so, whether - in your view - it is being implemented effectively, partially effectively or ineffectively in your workplace.

UV Radiation Control Measures	Control in place & effective	Control in place and partially effective	Control in place but ineffective	Control not in place or Not applicable
Policy				
A sun safety policy or procedure				
Elimination				
Schedule outdoor work tasks from sunset / at night or move inside				
Substitution				
Schedule outdoor work tasks outside of peak UV radiation times				
Engineering controls				
Provide built (portable or fixed) or natural (trees) shade for workers				
Provide window tinting in vehicles				
Administrative controls				
Rotate workers between indoor/shaded and outdoor tasks				
Reduce exposure to reflective surfaces				
Encourage role modelling of sun safety practices by leadership and management teams				
Provide sun safety education and training to staff				
Provide sun safety information and resources				
Minimise exposure to photosensitive substances				
Advise workers to consult their GP if taking medication that may cause photosensitivity				
Include UV protection requirement in procurement procedures (e.g. UPF 50+ uniform fabric and minimum UVE of 95% for shade)				
Personal Protective Equipment (PPE)				
Ensure that the wearing of sun safe PPE is mandatory				
Provide a broad-brimmed, bucket or legionnaire style hat				
Provide attachable brims and neck flaps for hard hats or helmets				
Provide shirt with long sleeves and collar made from UPF 50+ fabric				
Provide long trousers made from UPF 50+ fabric				
Provide uniform that is designed to keep workers cool yet provide maximum sun protection				
Provide at least SPF 50+ broad-spectrum, water-resistant sunscreen and lip balm				
Provide wrap-around sunglasses or safety glasses marked 'O' for outdoor use that meet the Australian Standard				

3. Set your sun safety priorities

Reflect on your ratings of the controls above and consider what can be changed in your workplace. To help prioritise areas for improvement, we recommend that you review those controls which are either colour coded red or amber. Try to prioritise the most protective controls with greatest impact, while finding the 'easy wins' to build momentum.

TIP: A sun safety policy review is strongly recommended as the first step for all workplaces, to reflect organisational commitment and support sustainability.

OUR WORKSITE PRIORITIES ARE *(PLEASE SELECT ALL THAT APPLY):*

- Policy
- Engineering controls
- Administrative controls
- PPE

You are now ready to develop your **Workplace Action Plan**
(Step 4 of the Implementation Guide).



Protect yourself in **five ways** from skin cancer



SLIP



SLOP



SLAP



SEEK



SLIDE