

FACT SHEET

Five steps to keeping workers safe in heat

Australian workers are more vulnerable to heat-related illnesses due to exposure to high levels of UV radiation and the world's worst skin cancer rate.

Working in intense heat over long periods can raise normal body temperature and in a worst-case scenario lead to heat stroke and possible death.

Heat stress and fatigue may also impair clear thinking, escalating risk of workplace injury – making errors, slipping or dropping tools.

While postponing work or rescheduling tasks to cooler times or other areas is often not possible, employers can take practical steps to reduce risk.

An essential provision is to monitor weather forecasts and plan ahead to ensure adequate safety measures are in place.

1. Look out for risks

Several environmental factors influence risk levels, such as exposure to high temperatures and humidity, poor airflow and direct sun with no shade or breeze.

Indoor radiant heat sources include ovens and furnaces, often in workplaces where high temperatures are vital to the manufacturing process.

Risk levels are intensified if, for example, the worker is pregnant or over 65 and in poor physical shape or health, on certain medications or not used to hot working conditions.

Research indicates younger workers can be more susceptible to heat-related injury. Possible reasons may be physically strenuous tasks combined with a lack of skills or experience and a reluctance to flag up problems with supervisors.

Other contributing factors include physical exertion levels and duration of work combined with inadequate water consumption and inappropriately heavy protective clothing and equipment.

2. Take steps to minimize the risks

Provide first aid information and train staff about working safely in heat and to identify symptoms in themselves and workmates – and report it immediately.

If unable to reschedule hot tasks to cooler times or at a different location, alternative measures include lighter but effective protective clothing and increasing worker rotation.

Deploy overhead shade cloths and share unavoidable heavier jobs between more workers.

Adequate supervision is crucial, along with ample water for hydration – about 200ml every 20 minutes – and regular breaks away from hot processes or the sun, under shade or in cool rooms.

Energy drinks have a diuretic effect and can make working in the heat more dangerous. Encourage workers to stick with water.

Regular meals and snacks are also important to replace salt and electrolytes lost through sweating.

Indoor staff exposed to radiant heat should be supplied with Personal Protective Equipment (PPE) such as reflective aprons and face shields.

Outdoor workers require UPF 50+ rated clothing – long-sleeved collared shirts, long pants, wide brim hat – and SPF 30+ sunscreen and sunglasses.

Ease new workers – or those returning after more a week’s leave – into a hot workplace gradually, allocating extra breaks and slowly increasing workload.

Make provision for first aid treatment and emergency medical assistance.

3. Know the symptoms and how to treat them

Heat-related conditions range from cramps, rashes and fatigue to more serious heat exhaustion and potentially fatal heat stroke.

Signs of **heat stroke** – where body temperature spirals to critical levels –include confusion, seizure, high body temperature and hot dry skin. Call 000 for paramedics and move the worker to a cool location. Strip their clothing and douse the body with cold water, applying ice packs or wet cloths while using fans to circulate air.

Heat exhaustion is the next most serious condition. Symptoms include vomiting, nausea, irritability, thirst and dizziness. In extreme cases, a worker can collapse and experience convulsions. Take a worker to a cool room to sip cold water and splash water on their head, neck and face. If symptoms persist or skin is very hot and dry, seek urgent medical assistance.

Less serious but extremely painful are **heat cramps** – involuntary muscle spasms caused by fluid and salt deficiency from excessive sweating due to physical exertion in heat. Treat by consuming water and a snack or sports drink every 20 minutes.

Heat rash, the most common reaction, develops when pores become blocked, trapping perspiration under skin. Symptoms range from mild blistering to red lumps, often intensely itchy. Best treated by cooling the skin and applying prickly heat powder.

4. Keep workplaces as cool as possible

Where possible, install air conditioning or extra ventilation if external cool air can be sourced. Place reflective shields on radiant heat hotspots, insulate hot surfaces and ensure floors are kept dry.

Fans can boost airflow speed over workers to improve surface and air heat exchange if the air temperature is less than skin warmth.

Extract hot air or steam using exhaust ventilation.

Draft in experts to assess heat exposure levels and possible solutions in workplaces with high ambient temperatures such as glass factories, foundries or bakeries.

5. Understand your responsibilities

Managing the risk of heat-related illness is mandatory under workplace health and safety laws. Any assessment of potential health hazards and protective measures must involve affected workers and health and safety reps.

The Wet Bulb Globe Temperature index is the standard method for assessing heat stress levels in industry and measures air temperature, radiant heat, humidity and airflow.

Workers deemed high-risk due to pre-existing conditions must undergo a medical examination before commencing work.

Find out more at workcover.nsw.gov.au and cancercouncil.com.au

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