

Work Health and Safety Alert and Advice

Working in Heat

Every employer or Person Conducting a Business or Undertaking (PCBU) has a duty of care to “ensure the health and safety of their workers and others at the workplace.” This includes ensuring that workers are not exposed to hazardous temperatures.

Between 2005 and 2014, 13 workers died in Australia from being exposed to ‘environmental heat’ - five were in Queensland including a 40-year-old.

As the temperature rises the body becomes less able to cope with the strain, serious health risks such as:

Heat Cramps: These are painful cramps in the legs and arm muscles, the back and the stomach. They are due in part to excessive loss of salt during sweating.

Heat Rash: Skin rashes over arms, shoulders and chest and behind the knee often associated with a tingling or prickly feeling are a sign of excessive heat exposure.

Heat Exhaustion: This happens when the body loses too much water too quickly.

The blood pumped to the skin for cooling purposes depletes the brain of sufficient blood and this can cause fainting. The signs are heavy sweating (clammy skin), vomiting, paleness, dizziness, low temperature, tiredness and a weak pulse.

Heat Stroke: This occurs when the body is no longer able to control its internal temperature. Because sweating stops, a high fever results that can lead to damage to organs such as the brain, liver and kidneys.

If you or others are experiencing any of these symptoms you should seek medical advice. As the temperature rises, the likelihood of workers’ health suffering increases.

Hot temperatures cause discomfort and hazards such as:

- reduced concentration (and increased likelihood of accidents)
- increased discomfort in use of protective clothing and equipment
- aggravation of effects of other hazards, e.g. noise
- aggravation of pre-existing illnesses
- heat stress, exhaustion and fainting.

Heat discomfort is felt at 30 degrees Celsius and all efforts should be taken by employers to keep temperatures below this level or to provide conditions for outdoor workers that help reduce the effects of seasonal hot conditions where the temperature exceeds 30 degrees.

Both indoor and outdoor work measures to be taken should include:

- avoiding work in areas where workers are exposed to heat
- providing air-conditioned rest rooms
- changing the rate of work e.g. taking longer
- providing lighter alternative work
- use of air-circulating fans
- use of shade cloths
- use of trees to shade buildings and outdoor areas
- provision of constant supplies of cool drinking water.

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When work cannot be re-scheduled or artificial cooling provided then a regime of rest breaks in cool areas with cool drinks is essential.

The temperatures for rest breaks will vary depending upon usual temperatures and whether workers are acclimatised. To minimise the risks, the temperature needs to be constantly monitored.

Your industry/union may have different schedules than those below that consider the type of work and conditions for your workplaces. The below is a recommendation for workers where those arrangements are NOT in place.

For parts of the country that are normally cooler due to variable climate many workers are not acclimatised.

30 to 32 degrees Celsius	10 minutes rest every hour
32 to 35 degrees Celsius	15 minutes rest every hour
35 to 38 degrees Celsius	30 minutes rest every hour
Over 38 degrees Celsius	Rest in a ventilated area until less than 38 degrees Celsius or go home

For hotter parts of the country

Above 36 degrees Celsius	10 minutes rest every hour
Above 38 degrees Celsius	15 minutes rest every hour
Above 40 degrees Celsius	30 minutes rest every hour
Over 42 degrees Celsius	45 minutes break every hour and no more than 2 hours at this temperature

The effects of heat are more pronounced if the air quality is poor, for example due to smoke haze. When it is hot and there is smoke haze the body spends energy keeping itself cool and coping with the effects of smoke haze. See ACTU Alert on Smoke Haze.

Some people may have physical or medical health conditions, making them more susceptible to hot conditions.

Hydration

Thirst is not a reliable guide for dehydration. It's essential to drink especially when working or exercising in the heat. Drink water, not energy or sports drinks. Urine that is light yellow is a good indication that you're getting enough fluid.

First Aid

If someone is suffering from heat stress they must immediately report to and be given first aid. This includes resting in cooler area, keeping the skin wet and fanning to improve evaporation and cooling of the skin.

If you have concerns about exposure in your workplace contact your union.