# Fact sheet

## Stay heat safe on mine sites

January 2026

## Introduction

Extreme heat can cause severe illness, hospital admission and even death. Before, during and after a period of hot weather, it's important that you keep cool and stay hydrated.

In extreme heat, or if you are physically active in hot weather, your body's natural cooling system can begin to fail. Your body temperature can increase to dangerous levels, leading to severe heat-related illness including heat stroke and heat exhaustion.

After several heat-related incidents at mine sites last summer, mine operators are reminded of their legislative obligation as outlined within the health control plan of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2022. Furthermore, mine operators should be aware of their legislative reporting requirements to report any work-related heat illness that:

- requires the person to have immediate treatment as an inpatient in a hospital (Work Health and Safety (Mines and Petroleum Sites) Regulation 2022, s189(a))
- the illness of a person (supported be medical certificate) that is related to a work process that results in or is likely to result in the person being unfit for a continuous period of at least 7days, to perform the person's usual activities at the person's place of work (Work Health and Safety (Mines and Petroleum Sites) Regulation 2022, s124 (5)(o)).

## Heat stress

As the weather warms up, workers face an increased risk of developing heat stress. There are several acute illnesses related to heat exposure which can be fatal.

Early warning signs of a heat related illness include:

- dizziness
- increased sweating and heat rash
- fatigue
- headache
- confusion
- fast and shallow breathing
- loss of appetite
- fainting
- nausea and vomiting
- cramps
- muscle pains, spasms or weakness

# Assessing potential exposure to heat stress

Mine operators are required to manage the risk to health and safety associated with extremes of temperature and /or moisture content of air (humidity). Underground mines are required to implement control measures including monitoring to manage heat stress at the mine in areas where a person may work or travel, and where the wet-bulb temperature is more than 27°C.

Assessment methods for heat exposure at surface and underground mines differ due to the unique conditions of each environment. A heat stress index such as the wet-bulb globe temperature (WBGT), Predicted Heat Strain (PHS) or the Thermal Work Limit (TWL) should be considered for open-cut surface mines, while the use of effective temperature (ET) heat stress index is advised for underground mines. These assessments primarily consider:

- air temperature
- air velocity
- humidity

Exposure assessments should also consider:

- exposure duration and worker health condition (medication, age, fitness)
- heat generated by the body due to work (metabolic load)
- heat generated by equipment (radiant heat)
- clothing which prevents evaporation of sweat (important for regulating body heat).

## Recommendations for being heat safe on mine sites

Mine operators:

- must ensure that health and safety management plans with regards to heat exposure meet legislative requirements and are implemented on site
- must consider the hierarchy of controls when completing risk assessments, including, but not limited to:
    - modifying workload and rescheduling work to cooler times of the day where practicable
    - engaging the use of mechanical aids to minimise physical exertion
    - provide workers with easy access to cool drinking water, or when necessary, electrolyte solutions.
    - provide regular breaks with air-conditioned, shaded or cool break areas as close as possible to the work site
    - reduce radiant heat using insulation or shielding where practical, or allowing plant to cool down before commencing maintenance works
    - increase air movement through use of mechanical fans or cooling fans where possible
    - ensure ventilation levels are monitored, and air flows are maintained at planned volumes to assist in cooling workings and keeping conditions below hazardous levels

  - have a system in place to monitor workers who are working in extreme temperatures. Additional controls should be considered for workers working alone.
  - take into consideration what PPE and clothing options are provided to workers who are working in extreme heat
  - use portable shade structures in outdoor or remote areas
  - use task rotation to reduce worker exposure

It is recommended that workers:

- present fit for work and remain well hydrated
- eat regular meals and snacks to help replace salt and electrolytes lost through sweating

**For more information view the Stay heat safe on mine sites campaign video.**