

Heat Stress

The effects of heat stress range from simple discomfort to life threatening heat stroke. Heat stress causes increased sweating which leads to loss of body fluid and then reduced heat tolerance. This results in reduced capacity for work, inefficiency, and increased risk of hazardous incidents.

Heat stroke, a rarer condition, is when sweating stops and body heat rises. This is a life threatening condition, and requires immediate medical attention.

Spot the hazard

Heat stress hazards can occur through:

- High temperatures
- High humidity
- Lack of air movement
- Unsuitable clothing
- A person's lack of acclimatization
- Hot protective clothing or equipment
- Physical activity
- Radiant temperature of surroundings

Warnings

Warning signs of heat stress are:

- Tiredness
- Headache
- Nausea
- Loss of concentration
- Muscle cramps
- Dizziness

Assess the risk

Using weather forecasts, availability of shade, knowledge of the job ahead, and an awareness of individual workers' heat tolerance, assess whether the day's tasks could cause heat stress or heat stroke. Consider ways of minimizing or eliminating the risks.

Those most at risk

Working in a hot environment is more likely to adversely affect people who are:

- Overweight,
- Medically unfit,
- Not acclimated to heat,
- Unhealthy, particularly if suffering from heart disease,
- Dehydrated, whether from alcoholic hangover, failure to replace salt and water lost in sweat, or from medically prescribed diuretic drugs.

Make the changes

Indoors

- Open windows and doors to allow natural cross ventilation, or install air conditioning if practicable.
- Provide fans or ventilators to lower temperature and increase air movement.
- Insulate roof, walls or heat making equipment.

- Duct hot steam and gases outside to help reduce humidity and lower temperature.
- Install extraction ventilation around heat producing equipment.

Outdoors

- Wear cool cotton clothing to allow air circulation and evaporation of sweat.
- Use a broad spectrum sunburn cream with an SPF of 15+.
- Wear broad brimmed hats that shade head, neck, face and ears.
- Wear close fitting sunglasses with side shields, labeled to meet Australian Standard AS 1067.
- Use a wetted scarf.
- Provide shaded rest areas.
- Provide an ample supply of cooled, non-alcoholic drinks and ensure they are easily accessible.
- Drink small amounts of water at frequent intervals to avoid dehydration.
- Re-schedule heavier work for cooler times of the day or for cooler days.
- Where possible, rotate work so workers spend less time each on heavy tasks.

Heat stroke: If heat stroke occurs:

- Remove the person from heat and allow to rest in the coolest available place.
- Cool the person down with a fine spray of water and fan them.
- Remove excess clothing.
- If conscious, give them cool, but not cold, water to drink.
- Contact a doctor, nurse or first aid officer immediately.
- Do not give salt or alcohol.

Remember: If working in hot weather:

- Replenish lost fluid - take small drinks frequently.
- Reduce sun exposure during the hottest hours of the day.
- Rest frequently in a cool place.