



Inclement Weather

Performing activities in inclement weather conditions can cause significant risks to the health and safety of individuals. These risks include:

- Illness such as hyperthermia (heat stress, heat stroke, sunstroke) or hypothermia (low body temperature).
- Aggravation of pre-existing medical and physical illnesses.
- Increased risk of accidents as a result of the inability to concentrate.
- Fatality.

Extreme Heat

The risk of heat related illness is greater when performing activities in hot, dry weather. The body produces more heat and may not be able to produce enough sweat to evaporate for the body to cool. It is easy to become dehydrated and for the body to become overheated. Individuals will start to feel ill and experience heat cramps, heat exhaustion or heat stroke which is an immediate medical emergency.

Exposure to Ultraviolet Radiation B (UVB)

The sun is the major source of ultraviolet radiation (UV radiation). Other sources include welding, gas/vapour discharge lamps, UV lasers, bactericidal lamps or black light lamps. Ultraviolet radiation is a component of the electromagnetic radiation (EMR) spectrum emitted by the sun. UV radiation can be broken into a number of components. The two that have the most impact on the skin are the UVA and UVB portions. Sunlight contains more UVA than UVB, but UVB is more active in causing skin and eye damage.

The danger period of exposure to UVB is between 10.00am and 2.00pm (11.00am and 3.00pm during daylight saving) from November to March. UVB levels are higher during summer than winter months however damage can occur outside these hours but may take longer.

Due to the cumulative effect of UVB exposure, adequate skin protection should be considered as a year round issue. Exposure of skin to the sun between the above times will cause:

- Mild sunburn within 12 minutes significant sunburn within 30 minutes.
- Peeling and blistering in 60 minutes.
- Permanent damage after 120 minutes.

Note - Sunburn – is a radiation burn to the skin caused by the sun. Long term exposure may cause:

- Skin damage (eg. sun spots, skin cancers such as Basal Cell Carcinoma, Squamous Cell Carcinoma and Melanoma).
- Eye damage such as short term inflammation of the membrane covering the eyelid (Photoconjunctivitis) and inflammation of the cornea (Photokeratitis) and long term diseases such as cataracts and growths on the conjunctiva (Pterygium).



- Babies and young children have thinner skin, less natural protection and risk of damage at a faster rate than adults.

Exposure to Extreme Cold and Wet Weather Conditions

Exposure to extreme cold and wet weather conditions while performing activities outdoors can result in body limbs becoming cold, stiff, numb and painful resulting in the loss of muscle/tissue mobility and manual dexterity. Extreme cold weather can cause muscle strain injuries and also aggravate a number of conditions such as arthritis, rheumatism and bronchitis.

Hazard Management Process

Risk Identification

Managers and Supervisors must ensure they are familiar with all locations and situations under their management and control where injuries or illnesses to individuals are anticipated as a result of performing activities in inclement weather conditions. This may include checking expected weather bulletin for maximum day time temperatures, UV forecasts and catastrophic bushfire warnings as well as undertaking general observations at the time. The following are some of the factors to be considered:

- The nature of the activity.
- The environment in which the activity is to be performed.
- Situations or systems of work where exposure to inclement weather conditions will occur.
- Whether the Bureau of Meteorology (BOM) has issued an Extreme Heat Warning where average daily temperatures (ADT) of 32C or above are predicted for three or more consecutive days. Warning messages are posted to the following websites: www.bom.gov.au, www.cfs.sa.gov.au and www.ses.sa.gov.au.
- The extent to which exposure to inclement weather affects the health and safety of the individual performing the activity.
- Individuals that may be at a higher risk of injury or illness as a result of performing activities in inclement weather conditions.
- Immediate availability of medical assistance in case of an emergency.

Risk Assessment

Where a risk has been identified, a risk assessment will determine the likelihood of a risk occurring and the potential consequences. These combined likelihood and consequence ratings will determine a level of risk e.g. low, medium, high, extreme. This will assist in the identification of the appropriate control measures to be implemented.

Risk Control

(a) Managers & Supervisors must consult with affected employees on appropriate risk control measures for mitigating risks associated with working in inclement weather.



(b) Tasks or parts of the task that have a potential to contribute to injury or illness relating to performing activities in inclement weather conditions must be eliminated. If this is not reasonably practicable, control measures must be implemented to minimise the risk using the hierarchy of controls.

(c) Risk control measures should be documented in Section 3. Risk Control Checklist and Action Plan in Appendix 2 Inclement Weather Risk Assessment Form.

The following are examples of the control measures that may be implemented to assist in controlling or reducing the risk to individuals:

Substitution Strategies

- Reorganisation of outdoor work or activity programs: Consideration should be given to the simple reorganisation of outdoor work or activity programs so that alternative activities (such as administrative work) can be undertaken when the sun is most intense, i.e. between 10.00am and 2.00pm (or 11.00am and 3.00pm during daylight saving).
- Schedule training: Schedule indoor training for days where inclement weather conditions are expected.

Engineering Strategies

- Use of Natural and/or Artificial Shade: Shade only reduces (but does not eliminate) the potential exposure to UVB. Sunburn can still occur in shaded areas, due to the scattering and reflection of UVB. Shade created by permanent objects such as shrubs, buildings and other structures should be used wherever practicable. In the absence of permanent objects, shade can be created by the use of canopies, tents, screens, umbrellas or other similar portable shade structures. As a minimum, a shady area should be provided for lunch and tea breaks so that individuals can get out of the sun during these periods.
- Equipment: Existing plant, such as ride-on mowers and tractors, should be reviewed for the possible installation of shade devices by the supplier/manufacturer. Purchasers of new plant should consider shade options prior to purchase, where practicable.
- Air Movement Systems: workplaces should have appropriate air movement systems. This may include oscillating fans and heating/cooling devices where practicable.
- Vehicles: Work vehicles that are frequently used by individuals as part of their normal duties or used in rural / remote areas for field trips must be air conditioned.

Administrative Strategies

- Allocation of work duties: Work should be organised, where practicable, to perform tasks in areas that have shade at that particular time of the day. Other options may include moving to indoors or to rotate workers (swap with someone who is not always in the sun) during peak UVB periods to limit exposure.



- Working hours: During the summer period, the nominal working hours for individuals may be varied where practicable to minimise the time spent working during peak UVB periods. Options may include variation in starting and finishing times or alteration to lunch breaks.
- Modification of the rate of work: Allowing for self-regulation of work by individuals.
- Work rotations: Rotation of individuals who are engaged in heavier tasks.
- Provision of information, training and instruction sessions for workers and others who perform activities in inclement weather conditions.
- Promotion of adequate fluid intake according to environmental factors. Adequate supplies of potable water should be maintained at all convenient work locations.

Personal Protective Equipment (PPE)

PPE is designed to provide protection to individuals from the risks associated with performing activities in inclement weather conditions. It may include clothing (wet weather and UVB protective), eye/face protection and hats. It is important to consider that in providing protection from one hazard, another is not created e.g. a hat that may provide protection from the sun could create poor vision. PPE must be fit for purpose and comply with the relevant Australian Standards.

Slip – on sun-protective clothing (make sure it covers as much skin as possible).

Slop – on SPF (sun protection factor) 30+ broad-spectrum sunscreen. Apply 20 minutes before going outdoors and reapply every two hours.

Slap – on a hat that protects the face, head, neck and ears.

Seek – shade.

Slide – on sunglasses (must comply with Australian Standard AS1067).

Monitoring and Review of Control Measures

(a) Managers & Supervisors must:

i. Regularly monitor the climatic conditions during work or planned activities in consultation with affected employees. This can be achieved by rechecking weather bulletin forecasts and bushfire warnings and undertaking general observations.

ii. Monitor the effectiveness of the implemented control measures in consultation with employees and WHS Committee and make changes where required.

(b) The WHS Committee may make recommendations on alternative control measures to the manager where necessary. All action is to be recorded in WHS Committee minutes of meeting.

Reporting of Injuries or Illnesses

The following process must be followed in the event that a worker or other person suffers an injury or illness as a result of exposure to inclement weather conditions.

(a) Render appropriate first aid in accordance. If the individual is unconscious arrange for immediate passage by ambulance for appropriate medical treatment.

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(b) Report the exposure on a College Accident & Injury form within 12 hours of the exposure to the College's Rehabilitation & Return to Work Coordinator.