

Working during hot weather

Current Legal framework

The Health and Safety at Work Act 1974 requires employers to provide their employees with a safe and healthy working environment. This is further enhanced by The Management of Health and Safety at Work Regulations 1999 which require employers to assess the risks to the health and safety of their employees arising out of their work activity.

Currently the law does not state a maximum workplace temperature, however The Workplace (Health, Safety and Welfare) Regulations 1992 lay down requirements for most aspects of the working environment. Regulation 7 deals specifically with the temperature in indoor workplaces and states that:

'During working hours, the temperature in all workplaces inside buildings shall be reasonable.'

The application of what is considered reasonable will vary within different workplaces & the work activities conducted in those spaces. At high temperatures (25°C and above) employees may become drowsy and less aware of dangers. There is also an increased risk of accidents due to slips, trips, falls, poor manual handling, injury from hand tools, etc. Thermal discomfort gives rise to reduced efficiency that can lead to poor decision-making with resultant errors. Work in hot and humid conditions can lead to an increased risk to health because:

- sweat evaporation is restricted by clothing worn and by the humidity of the environment
- heat will be produced within the body due to the work rate and, if insufficient heat is lost, deep body temperature will rise
- as deep body temperature rises, the body reacts by increasing the amount of sweat produced, which may lead to dehydration
- heart rate also increases, which puts additional strain on the body
- if the body is gaining more heat than it can lose, the deep body temperature will continue to rise, eventually reaching a point when the body's control mechanism itself starts to fail
- the symptoms will worsen the longer the person remains working in the same conditions.

Risk Assessment

The main factors to consider when carrying out a risk assessment of working in hot weather are: temperature, humidity, air movement, workload, work clothing/costumes/PPE clothing to be worn, duration of the work, age or vulnerability of those involved, and equipment involved that might generate additional heat.

The controls introduced following the risk assessment should adopt the usual hierarchy of control approach. For example:

- elimination of risks, eg rescheduling the work to cooler periods of the day
- reduction of risks, eg doing the work in a way that requires less strenuous effort

- administrative controls and safe work practices, eg additional breaks in cooler areas, cool water and job rotation
- personal protective equipment, eg the provision of lighter clothing.

Heat exhaustion

Heat exhaustion results from high body temperature caused by a reduction of blood flow and could drive up core body temperature to 39°C. The reduction of blood flow may result from dehydration under hot conditions or extremely fast heartbeat caused by high temperature and intense physical labour.

Heat exhaustion is a milder form of heat-related illness that can develop after exposure to high temperatures. Warning signs include: heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting, fainting and the lowering of mental alertness. The skin may become cool and moist, the pulse rate fast and weak, and breathing fast and shallow. If heat exhaustion is left untreated, it may progress to heat stroke. Cooling measures include:

- cool, non-alcoholic beverages
- rest
- cool shower or bath
- an air-conditioned environment
- lightweight clothing.

Heat cramps

Heat cramps can occur when excessive sweating takes place during strenuous activity. Heat cramps can be a symptom of heat exhaustion. Where they occur, the employee should:

- stop all activity and sit quietly in a cool place
- drink clear juice or a sports beverage
- not return to strenuous activity for a few hours after the cramps subside, further exertion may lead to heat exhaustion or even heat stroke
- seek medical attention if the heat cramps do not subside within a few hours.

Heat rash

Heat rash is a skin irritation caused by excessive sweating during hot or humid weather. It looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts and in elbow creases. The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Dusting powder may be used to increase comfort.

Heat syncope (fainting)

Heat syncope occurs when blood pools in the lower parts of the body, causing a temporary reduction in blood supply to the brain and hence a loss of consciousness.

First aid

Although slightly different treatments will be required for different conditions, in general the following is suggested.

- move the patient to a cooler place.
- lower their body temperature by:
 - removing some of their clothing (only if necessary)
 - wiping their body with a towel soaked in cold water
 - fanning them.
- if the patient is unconscious, place them in the recovery position.
- look out for symptoms of heat stroke — hot dry skin, confusion, convulsions and eventual loss of consciousness. heat stroke is the most severe disorder and can result in death if not detected at an early stage.
- always send the patient to hospital/emergency services if the condition worsens.

Risk management controls

- communicate regularly with all company members & co-ordinate all heat related control measures with the venue operator to ensure a safe & healthy working environment
- provide additional air con units and industrial fans for the hottest parts of the building – including backstage spaces and dressing rooms
- keep windows closed and blinds down in dressing rooms
- allow alterations/removal of costumes/make up where possible and relaxation of “blacks” requirements including wearing of shorts
- where necessary introduce pauses between scenes or musical numbers especially after strenuous physical performance or dance routines and provide a cooler space in which performers may take a break
- provide sports drinks, ice creams/lollies and rehydration sachets
- obtain additional fridge-freezers in dressing rooms and/or ice buckets
- provide personal ice packs, frozen towels and additional water fountains
- ensure the auditorium is chilled pre performance and the cooling system/air-con remains on at all times where practicable
- if possible open the lantern to increase air flow
- consider opening dock doors wherever practicable, although additional security may be required. This could also affect the building cooling systems and noise could make this prohibitive in some venues
- consider alternatives/under study/swings to play second performances on matinee days
- taxis to transport vulnerable workers to and from work

Working in outside events spaces

In addition to the general heat control measures, employers should:

- include sun protection advice in venue training
- encourage workers to keep covered up, especially when the sun is at its hottest

- encourage workers to use sunscreen of at least Sun Protection Factor 30 on any part of the body they cannot cover up and to apply it as directed on the product
- encourage workers to take their breaks in the shade, rather than in the sun
- schedule work to minimise exposure
- site water points and rest areas in the shade
- encourage workers to drink plenty of water to avoid dehydration
- encourage workers to check their skin regularly for unusual spots or moles that change size, shape or colour and to seek medical advice promptly if they find anything that causes them concern.

Further information

- INDG 337 *Sun Protection; Advice for Employers of Outdoor Workers*
- INDG 451 *Heat Stress in the Workplace: A Brief Guide*
- <https://www.nhs.uk/live-well/seasonal-health/heatwave-how-to-cope-in-hot-weather/>
- <https://www.tuc.org.uk/sites/default/files/Temperature.pdf>
- <https://app.croneri.co.uk/feature-articles/risk-assessment-and-outside-work-hot-weather-0>

The Theatre Safety Committee (TSC) is a cross-industry body which monitors developments and disseminates information relating to health and safety in the theatre industry. Its members are: Association of British Theatre Technicians (ABTT), Broadcasting Entertainment Cinematograph and Theatre Union (BECTU), Equity, Independent Theatre Council (ITC), Institute of Musicians' Union (MU), Little Theatre Guild (LTG), Society of London Theatre (SOLT), Small Independent Theatres (SIT), Stage Management Association (SMA), Theatres Trust and UK Theatre. To contact the TSC please email phillip@soltukt.co.uk