



Cabinet Office  
Office of Human Resources  
Health, Safety and Welfare

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# Working in Hot Environments

Health, Safety and Welfare

Advisory Service

**Working Group:** Toolbox Talks

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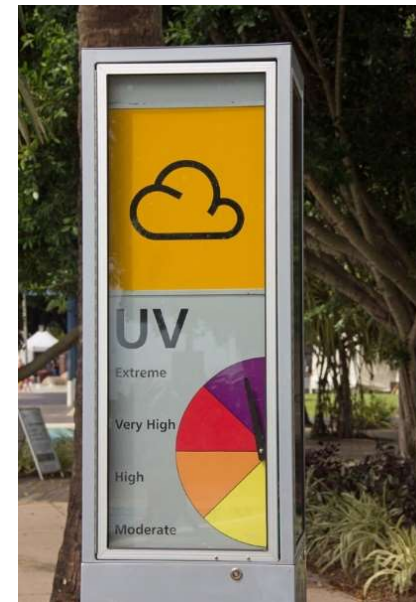
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# Introduction

When working in a high temperature environment, there is a risk of heat stress, which is a term used to describe a range of ill health symptoms, from fatigue, through to potentially fatal heat stroke. When working in the sun, there are added risks of sunburn and in the longer term, skin cancer.

Employers are responsible for protecting their employees from harm, so far as is reasonably practicable.

They must also assess the risks of work activities and implement measures to control the risks.



# Current Situation

- For those working outdoors, there is the added risk of sun exposure. Exposure to ultraviolet radiation (UV) from the sun can cause skin damage including sunburn, blistering and, in the long term, skin cancer.
- There are around 16,200 new melanoma skin cancer cases in the UK every year, that's 44 every day (2015-2017).
- 1 in 36 UK males and 1 in 47 UK females will be diagnosed with melanoma skin cancer in their lifetime.
- 86% of melanoma skin cancer cases in the UK are preventable.
- Melanoma skin cancer is the 5th most common cancer in the UK, accounting for 4% of all new cancer cases (2017)

# Heat Related Illness

- Fatigue – reduced concentration = risk of accidents/errors
- muscle cramps
- severe thirst – a late symptom of heat stress
- heat rash
- heat exhaustion – headaches, dizziness, nausea and fainting
- heat stroke – potentially fatal:
  - body temperature over 40°C
  - rapid pulse
  - confusion
  - loss of consciousness
  - convulsions.

# Risk Assessment

## Risk assessments should identify:

- who is at risk? – identify employees who are more susceptible to heat stress, for example due to illness/condition or medication
- which activities create a risk of heat stress, taking into account:
  - environmental temperature
  - work rate and duration
  - humidity
  - clothing usually worn
  - any PPE or respiratory protective equipment being worn
- the risk control measures needed to reduce the risk to an acceptable level – can you eliminate, reduce, isolate or control the hazards identified?

# Risk Assessment

## Controlling exposure to excess heat

- Control the temperature, e.g. air conditioning, fans, shelter
- reduce the amount of time each worker is exposed to the risk
- frequent rest breaks in a cool environment
- work at a cooler time of day
- prevent dehydration
- provide the right personal protective equipment, e.g. breathable fabric, sun protecting fabric, sun hats, sunscreen, sunglasses etc
- relax uniform requirements/dress codes
- ensure staff understand the risks and the symptoms
- be prepared for first aid emergencies – first aiders understand symptoms and treatments
- provide mechanical aids to reduce the work rate.

# Employee Awareness

## Controlling exposure to excess heat

- Look out for signs and symptoms in yourself and colleagues
- take sensible precautions, e.g. take rest breaks in shade/cooler environment, use sun screen or cover up
- drink water little and often
- stop work if you feel dizzy, exhausted or confused and speak to a first aider
- if regularly working in the sun, check your skin for signs of cancer such as discolouration and moles which grow or bleed.

# Resources

- Advice for Employers of Outdoor Workers – HSE
- Heat Stress in the Workplace – A Brief Guide – HSE INDG451
- Keep Your Top On – Health Risks from Working in the Sun – HSE INDG147





# Questions and answers

## Questions and **Answers**

**Q: Which one of these is the most serious heat illness:  
1. heat stroke 2. heat exhaustion 3. heat fatigue**

**A:** .....

**Q: Name three ways of controlling exposure to excess heat:**

**A:** .....

**A:** .....

**A:** .....