

How to Handle a Heat Wave

The British press have given a lot of attention to the recent Met Office prediction that the average UK temperatures in July and August 2005 may be unusually high. A recent BBC 1 television programme envisaged the scenario where temperatures were in excess of 30°C for six days in a row.

In the television programme, public transport ground to a halt, hospitals were inundated with cases and large tracks of the British countryside caught fire.

In 2003, high temperatures killed approximately 27,000 people across Europe. It was believed that summer that there were over 2,000 deaths within the UK, although a significant number of these were in the elderly.

The Department of Health has published an information leaflet called 'Heat Wave' which is available from their website. The leaflet is designed to provide members of the general public with a series of suggestions that could help people enjoy the hot summer weather and at the same time protect them from the dangerous and potentially fatal effects of high temperatures.

The South East of England is potentially the highest risk area, when compared with the temperatures that were achieved in 2003.

The Government's plan includes support for General Practitioners and the NHS Direct Helpline. The Chief Medical Officer has indicated in his press briefings that there is a heat wave plan in place providing health and social care services with the knowledge and know how that they require to take action if the heat wave arrives.

Government advice includes:

1. If a heat wave is forecast, try to plan the day in a way that allows you to stay out of the heat.
2. Avoid going out between 11 am and 3pm.
3. Take cool showers and baths several times a day
4. Eat cold food, particularly salads and fruits, which also contain water
5. Drink plenty of water
6. Check on older relatives, colleagues and neighbours daily

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This information is extremely useful within the workplace and certainly should form the basis of any company procedure or policy focused on the next few months.

In the world of work, the temperature within a particular working environment due to an industrial process will be significantly exacerbated by a rise in the environmental temperature. For employees who are used to temperate climates, to be exposed to such hot environments, can cause major problems; particularly if they are not acclimatised to the heat.

The medical condition that individuals develop when they are exposed to excessive temperatures for excessive periods of time or are required to undertake strenuous activity in high temperature environments is known as 'heat stress'. Guidance is available with regards to acclimatisation programmes and the importance of water replacement, the length and type of work that can be carried out at particular temperatures, the type of clothing that should be worn in particular environments and the use of heat stress indices.

Although the environmental temperature is extremely important, there are also other important factors that have to be addressed.

1. Hot surfaces, such as machinery or highly reflective surfaces radiate heat
2. A high level of humidity will affect an individual's ability to perspire and evaporate and so therefore cool the body
3. Air movement is also important as a way of cooling down the human body
4. Clothing has to be appropriate for the environment, the humidity and the activity. Some clothing will restrict heat loss
5. An employee's activity will determine how much heat they produce, how it is lost, for example an employee at rest produces approximately 100 watts of heat. An employee carrying out heavy manual work produces 500 watts of heat.

If the above factors are not addressed appropriately, employees can develop problems at relatively low temperatures. These factors should be considered in any risk assessment that is undertaken for individuals working in a hot environment.

When attempting to protect employees working in hot, humid environments, the mnemonic 'SHAFTS' is a useful memory aid, this stands for

1. **S**ensible – allowing individual employees to be trained in the hazards of being exposed to high temperatures for prolonged periods of time and teaching them how best to behave
2. **H**ydrated – stressing the importance of fluid replacement and allowing evaporation



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3. **Acclimatisation** – allowing employees time to become acclimatised to a particular working environment
4. **Fit**- many organisations arrange annual medical assessments to assess an individual's fitness to work in high temperature environments
5. **Sober** – it is advisable to stress the importance of avoiding alcohol, in particular, and other substances of abuse when working in high temperatures.

The measurement of environmental temperatures, humidity and air flow is a specialist area of science, normally undertaken by an Environmental Hygienist. The HSE is an extremely useful source of information, also providing guidance notes on heat stress and the management of heat within the workplace.

There is a significant amount of knowledge with regards to the human response to heat, risk assessment tools, measurement tools and facilities for cooling employees and their environment are available. It is important, therefore, that as an employer, all reasonable steps are taken to manage this problem, which possibly will be particularly acute in the next few months.

Preventative Healthcare is able to assist with regards to risk assessments, environmental monitoring and health assessments in this area. If you would like any further information, please do not hesitate to contact Jane Puncher on 01622 775285 or email j.puncher@phcohealth.co.uk or visit our website at www.phcohealth.com

