



### Working outdoors in hot conditions

As predicted by scientists, record breaking weather events are becoming an increasingly common phenomenon. In the UK, new records for the wettest, coldest, windiest and hottest days seem to be broken on a yearly basis, and this year is no different. As I type this article, news articles report this week will see the hottest July day ever, with some areas seeing 37 degrees.

Working outside, in high temperatures under the sun for prolonged periods, represents a significant risk to workers. Whilst heat-related issues such as minor sun burn and heat rash already affect many workers every year in the UK, as global warming continues and summer temperatures in the UK continue to break records, should the industry become more aware of the potential for more severe problems brought about by higher temperatures? Nearly every heat-related illness is preventable, but awareness of the hazards and common-sense solutions is essential.

Academic research suggests environmental heat stress has reduced labour productivity to 90% during peak months over the past few decades, with further reductions in productivity likely in the UK as global warming increases.

#### The human factor

The body is excellent at maintaining a stable temperature of 37 degrees but will resort to increasingly extreme measures if it needs to.

1. Sweating: The first measure the body will take. An average person sweats around 1 litre per hour during exercise. Bear that in mind when you're next working outside.
2. Heat rash is usually caused by excessive sweating and is the first sign of a more significant issue. Sweat glands become blocked, which leads to a rash developing a few days later. It is easily treated by moving to a cooler area.
3. Heat cramps are another sign that the body is hot and becoming dehydrated. The cramps often occur suddenly in the stomach or legs. This symptom may be treated by moving the person to a cooler and providing fluids such as water or sports drinks.
4. Heat exhaustion represents one of the more serious health-related illnesses. Symptoms include headaches, dizziness and confusion, loss of appetite and feeling sick, excessive sweating and pale, clammy skin, fast breathing/pulse, high temperature and being very thirsty.

It is essential that employees showing these symptoms are moved to a cool place, encouraged to lie down with their feet raised slightly, and given plenty of water or sports drink. Their skin should be cooled either with a spray or sponge with cool water.

Operatives showing these symptoms must be supervised until they start to feel better, which may take around 30 minutes.



5. If the person shows no signs of improvement after 30 mins, feels hot and dry, has rapid shortness of breath, is confused, loses consciousness or is unresponsive, they may be suffering from heat stroke. This is a very serious condition which warrants assistance from the emergency services. While you wait for help, continue giving first aid and put the patient in the recovery position if they lose consciousness.

### Suggested actions

Suggested actions follow the working principles adopted by construction workers overseas, who are used to working in temperatures that regularly exceed 40 degrees.

1. Ensure workers have access to water, or can travel to get water, easily. Supervisors should encourage workers to drink throughout the day. Water and sports drinks should be the first choice, and bear in mind, caffeine – an ingredient in many so-called sports or energy drinks – is a known diuretic and can cause irritability and insomnia.
2. Rest breaks should be scheduled throughout the day, and workers provided with an area which is shaded and well ventilated
3. Schedule work properly. Realistically, operatives will need to work during hours of high temperature, but could works which require heavy lifting or high levels of exertion be scheduled for earlier in the morning or, subject to client approval, night working?
4. Whilst the benefits of personal protective equipment outweigh the risks associated with exposure to high temperatures, consideration should be given to the type of PPE being worn, and how it is worn. If alternative types of PPE cannot be worn, additional breaks may be required for operatives who wear certain PPE. Supervisors should ensure operatives do not adjust PPE to make it more comfortable in high temperatures (for example, loosening straps of harnesses) and instead increase the number of breaks.

The macho culture associated with some work scenarios, where admitting discomfort is seen as a sign of weaknesses or laziness, should be carefully monitored by supervisory staff. Whilst workers may refuse to admit to their supervisors there is an issue with working in extremes of heat, it is up to the supervisor to enforce breaks and ensure the health of operatives is monitored.