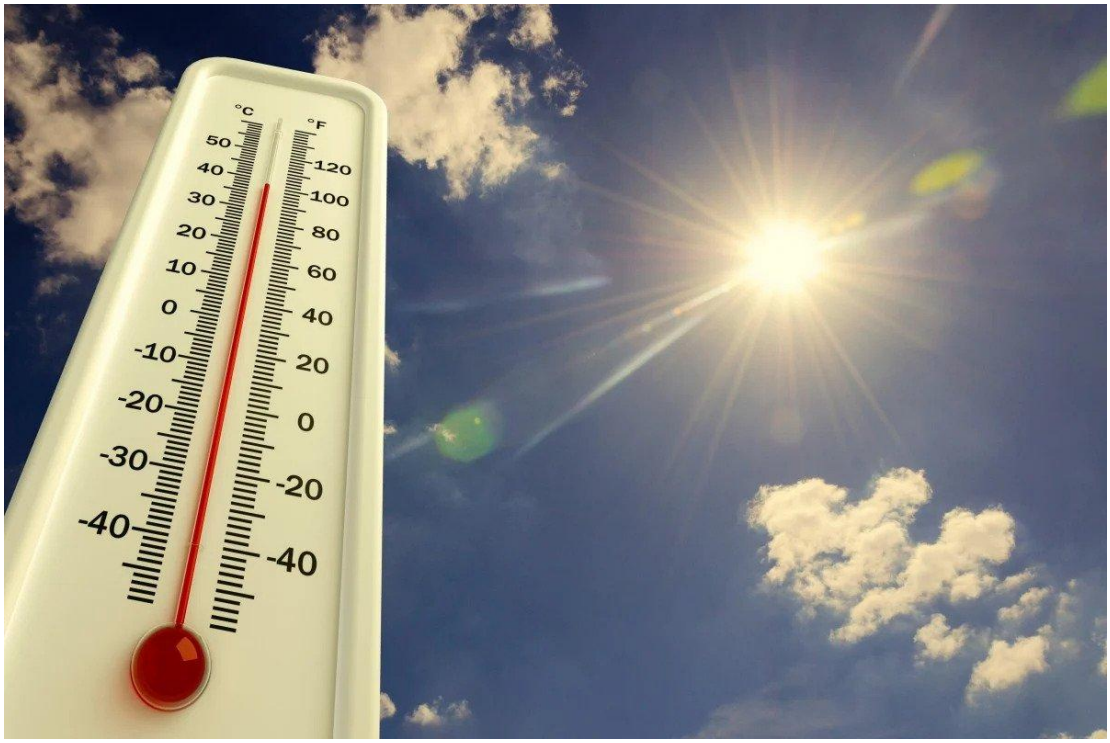
OnSite Support Research Team

Safety in Warm Conditions

STAYING SAFE WHEN THINGS HOT UP



First published
June 2025

This and other White Papers have been developed by the OnSite Support Research Team
in collaboration with leading independent bodies and other partners

Construction workers are increasingly exposed to extreme heat as climate change brings more frequent heatwaves.

Introduction

Prolonged work in the sun and high temperature environments can quickly lead to heat exhaustion, dehydration or even heat stroke.

While UK law does not set a maximum outdoor temperature, workplaces must remain at a 'reasonable temperature. This means site managers and employers must proactively cool and protect workers when conditions heat up.

The Importance of Identifying Key Heat Hazards

- **Dehydration:** High temperatures make workers sweat a lot. Losing water and salt causes dizziness, confusion, or fainting. Thirst, dark urine, or cramps can signal serious dehydration.
- **Sun (UV) exposure:** Strong sun increases the risk of sunburn and long-term skin damage. Even on cloudy days, UV rays can cause burns and eye injury if skin and eyes are unprotected.
- **Heat exhaustion:** Heavy work in heat can overwhelm the body's cooling. Early warning signs include tiredness, headaches, muscle cramps, and excessive sweating. If unchecked, it can progress to heat stroke, a life-threatening emergency.

The law

There's no law for maximum working temperature or for when it's too hot to work.. Workplaces high temperatures are not simply seasonal but may be created by work activity itself. Hotter temperatures can be experienced in a variety of working environment so don't forget underground working or other types of less well-ventilated spaces.

Employers do need to adhere to H&S at work laws, including keeping temperature at a comfortable level, and providing clean and fresh air.

More details found here:
https://www.hse.gov.uk/temperature/employer/index.htm

Stay Safe: Practical Steps

- **Hydrate constantly:** Supply plenty of cold drinking water on site. Encourage workers to sip frequently (don't wait until they're thirsty). A good rule is a quick drink every 15–20 minutes in hot weather.
- **Sun protection:** Provide high-SPF sunscreen and UV-blocking gear (wide-brim hats, long-sleeve lightweight shirts) free of charge. Sun hats and breathable clothing greatly reduce heat build-up.
- **Smart scheduling:** Shift heavy tasks to cooler hours. For example, start earlier in the morning and pause work during peak sun (typically 11am–3pm). Increase the number of short breaks in cool or shaded areas to let bodies recover.
- **Cool rest zones:** Set up shaded or air-conditioned rest areas on site. Fans or misting stations can help reduce heat stress during breaks. Ensure workers can easily reach these areas and rest whenever needed.
- **Training & teamwork:** Hold toolbox talks on heat risks, symptoms, and prevention. Encourage a buddy system: coworkers should watch each other for warning signs (like confusion or clammy skin). Never ignore unusual behaviour.

'All workers are entitled to an environment where risks to their health and safety are properly controlled. Heat is classed as a hazard and comes with legal obligations like any other hazard.'

Heat Illness: Recognize and Respond

- **Early signs:** Look for dry mouth, severe thirst, headache, dizziness, or cramps. If a worker shows these symptoms, immediately move them out of the heat, offer cool water, and let them rest. Heat exhaustion can often be managed on-site if caught early.
- **Emergency signs:** Very high temperature, confusion, rapid pulse, or collapse indicate heat stroke. This is a medical emergency. Cool the person quickly (shade, cool fluids, damp cloths) and call emergency services. Don't delay – heat stroke can be fatal if not treated immediately.

Planning, Responsibilities & Alerts

Employers must treat heat like any other workplace hazard. Under health and safety law, managers should assess heat risks and update plans when conditions change. If a heatwave is forecast, revise the risk assessment and controls (more breaks, lighter duties, etc.). Special consideration is needed for vulnerable staff (young, elderly, pregnant, or with health issues) – they may need extra breaks or reassignment on hot days.

The UK issues official Heat-Health Alerts during summer. When a Yellow alert is up, businesses should review heat precautions. An Amber alert means weather impacts are likely, so sites should reschedule work for cooler times (before 11am or after 3pm) and provide free sunscreen, shade, and water. In a Red alert (extreme risk), only critical outdoor tasks should proceed: all work between 11am–3pm should be minimized and broken up with extended shade breaks. Stay tuned to Met Office forecasts and take warnings seriously – planning ahead prevents last-minute crises.

Building a safe, cool workplace in hot weather is a team effort. By hydrating crews, adjusting schedules, training everyone on the risks, and following official guidance, construction sites can stay productive without putting workers in danger. Heat safety shouldn't be an afterthought – it's a vital part of every site's health and safety plan.

PPE CAN REDUCE THE BODY'S ABILITY TO EVAPORATE SWEAT, MAKING IT HARDER TO COOL DOWN NATURALLY.

IF THE PPE IS HEAVY OR UNCOMFORTABLE TO WEAR, IT MAY FURTHER CONTRIBUTE TO INCREASED BODY HEAT AND THE RISK OF HEAT STRESS.

Further Reading and Acknowledgements:

Click on the links below for more insight into the topic

HSE (Health and Safety Executive): Temperature in the workplace

Unison: Extreme Heat at Work: A Critical Health and Safety Issue