

# Hot Weather

## Heat Stress

Heat stress occurs when the body's means of controlling its internal temperature starts to fail. Air temperature, work rate, humidity and work clothing are all factors which can cause heat stress.

The body reacts to heat by increasing the blood flow to the skin's surface and by sweating. This cools the body as heat is carried to the surface from within by the increased blood flow and sweat evaporates. Heat can also be lost by radiation and convection from the body's surface.



Wearing protective clothing and performing heavy work in hot and humid conditions can increase the risk of heat stress because:

- Sweat evaporation is restricted by the type of clothing and 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 then the deep body temperature will continue to rise. Eventually it reaches a point where the body's control mechanisms start to fail.

## What are the effects of heat stress?

Heat stress can affect individuals in different ways and some people are more susceptible to it than others.

Typical symptoms are:

- an inability to concentrate;
- muscle cramps;
- heat rash;
- severe thirst – a late symptom of heat stress;
- fainting;
- heat exhaustion – fatigue, giddiness, nausea, headache, moist skin;
- heat stroke – hot dry skin, confusion, convulsions and eventual loss of consciousness.



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## How to prevent heat stress?

### Try and cool down,

- Removing clothing where practical (PPE must be kept on whilst carrying out the task).
- Be conscious of exposing bare skin to direct sunlight which can cause skin damage and increase fatigue

### Prevent dehydration

- Working in a hot environment causes sweating which helps keep people cool but means losing vital water that must be replaced. Provide plenty of cool water in the workplace and encourage your teams to drink it, during (and where possible), after working. This is particular important when wearing RPE for long periods.

### Avoid direct sunlight

- Sit / walk in the shade or a cooler area.

## Plan the work

- Think about the tasks and the risks and what mitigations are required
- Rotate tasks where practical to allow staff to cool off and have some water.
- Ensure good welfare and plenty of water is available on site , If possible agree the use of facilities that have a cooler environment for breaks
- If possible set up shaded areas for planned breaks
- Use summer PPE provided, e.g. lightweight Hi-Vi vest, hats with neck guards, sun cream.

## Discuss

- Have conversations with your teams about how you might improve tasks and the working environment.
- Speak to your manager about the ranges of PPE available.

Above all, **Look out for your colleagues**

