



National  
Operational  
Guidance

Hazard

**Physiological stress**



**NFCC**  
National Fire  
Chiefs Council

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## Hazard - Physiological stress

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### Hazard Knowledge

Physiological stress is the body's response to a stressor, such as an environmental condition or a stimulus. Examples of physiological stress are fatigue, dehydration, heat illness and hypothermia.

Fatigue is a subjective feeling of tiredness which has a gradual onset; it can have physical or mental causes and may significantly affect a person's ability to perform tasks.

Dehydration occurs when the body loses more fluid than it takes in; minerals in the body become unbalanced, which affects the way that it functions.

The ability of personnel to operate effectively may be affected by physiological stress. This could be caused by:

- The environment and weather conditions
- The task they are undertaking
- Their personal protective equipment
- Their condition prior to being mobilised, including illness and physical condition



## Control measure - Reduce exposure to hazards

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### Control measure knowledge

If it is not possible to fully eliminate the hazard, then exposure should be reduced to limit the risk as far as reasonably practicable. Examples of ways in which this can be achieved include:

- Reducing the amount of time spent in the hazard area and avoid repeated exposure
- Increasing the distance from the hazard
- Specialist resources and vehicles to transport people and equipment

## Strategic actions

Fire and rescue services should:

- Identify from pre-planning any risks that can be reduced by reduced exposure and communicate to personnel

## Tactical actions

Incident commanders should:

- Consider implementing control measures that reduce the exposure of responders to a hazard
- Consider requesting specialist resources to transport personnel and equipment



## Control measure - Task rotation

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### Control measure knowledge

Personnel attending an incident may need to be deployed as teams. These teams should be of an appropriate size to carry out the task and sufficient to allow task rotation. The use of task rotation may help to minimise the exposure of personnel to the hazards present.

If possible, personnel should share tasks, roles and functions and should manage team and task rotation if appropriate.

### Strategic actions

Fire and rescue services should:

- Develop tactical guidance and support arrangements for the hazards and actions to be taken when managing the appropriate deployment of resources



## Tactical actions

Incident commanders should:

- Keep the number of people exposed to the hazard at a minimum and reduce time of exposure through task rotation