

Safety Awareness Topic of the Month

Heat-Related Illness

It's that time of year again when we need to be particularly vigilant both at work and at home. Heat-related illness includes dehydration, heat cramps, heat exhaustion, heat stroke, and worsen existing medical conditions. It can range from mild conditions such as dehydration or cramps to very serious conditions such as heat stroke and sometimes death. Heat worsens many existing medical conditions such as heart disease, diabetes, and kidney disease, or may even trigger a heart attack. If left untreated heat stroke may cause serious permanent injuries to the brain or other vital organs.

It is important that everybody is aware of the signs and symptoms of heat-related illness in order to recognise and treat affected people promptly. The best way to prevent heat-related illness is to drink plenty of water and to stay as cool as possible. Remember the key points to keep you and others healthy in the heat:

- Drink plenty of water
- Keep as cool as possible
- Take care of each other
- Share tasks when possible
- Have a plan
- Awareness training



It is very important that a person's body temperature stays in the range of 36.1 – 37.8°C. If body temperature rises above this, a person may develop heat-related illness.

When the weather is very hot, the body has to work harder to produce sweat to keep itself cool and harder still if it is humid, or if the person is already dehydrated.

Everyone needs to take care in hot conditions, but some people are at more serious risk of health effects from the heat than others, including:

- Older people usually those over the age of 75
- Babies, young children, and pregnant women
- People who are overweight or obese
- People who work or live by themselves
- People who work in a hot environment
- People who exercise strenuously in the heat
- People with chronic diseases
- People who have an acute illness, e.g. an infection with a fever or gastroenteritis
- People who take certain medications

Dehydration: can be mild to moderate and makes the heart pump faster leading to reduced fluid available for sweating.

Symptoms:

- Dizziness and tiredness
- Irritability
- Thirst
- Bright or dark yellow urine
- Loss of appetite
- Fainting

Actions:

- Drink plenty of water or diluted fruit juice (1 part juice in 4 parts water) and avoid tea, coffee or alcohol
- Move somewhere cool, ideally air-conditioned
- If possible use a spray bottle with water to cool down
- If you start to feel unwell, seek medical advice

Heat cramps: usually affect people who sweat a lot during strenuous activity (e.g. work). The sweating causes the body to lose both salt and water. The low salt levels in the muscles may be the cause of heat cramps and they can be a symptom of heat exhaustion.

Symptoms:

- Muscle pains
- Muscle spasms

Actions:

- Stop all activity, lie in a cool area, legs slightly raised
- Drink water or diluted fruit juice
- Have a cool shower or bath
- Massage limbs to ease spasms, apply cool packs
- Do not return to strenuous activity for a few hours after the cramps subside as continued exertion may lead to heat exhaustion/heat stroke
- Seek medical advice if there is no improvement

Heat exhaustion: is the body's response to an excessive loss of water and salt contained in sweat. If untreated heat exhaustion can turn into heat stroke.

Symptoms:

- Heavy sweating (cool and moist skin)
- Pale skin
- Rapid and weak pulse rate
- Shallow and rapid breathing
- Muscle weakness or cramps
- Tiredness and dizziness
- Headache
- Nausea or vomiting
- Fainting

Actions:

- Move to a cool place, ideally air-conditioned and lie down
- Remove excess clothing
- Take small sips of cool fluids
- Take a cool shower, bath or sponge bath
- Put cool packs under armpits, on the groin, or on the back of the neck to reduce body heat
- If symptoms worsen or if there is no improvement, seek urgent medical advice and call an ambulance if necessary

Heat stroke: is a life-threatening emergency and occurs when the body temperature rises above 40.5°C. Immediate first aid is extremely important, endeavour to lower body temperature as quickly as possible.

Symptoms:

- Sudden rise in body temperature
- Red, hot and dry skin (sweating has ceased)
- Dry swollen tongue
- Rapid pulse
- Rapid shallow breathing
- Intense thirst
- Headache
- Nausea or vomiting
- Dizziness or confusion
- Poor coordination or slurred speech
- Aggressive or bizarre behaviour
- Loss of consciousness, seizures or coma

Actions:

- **Immediately call 000 and ask for an ambulance**
- Get the person into the shade, lay them down, and keep them as still as possible
- Give small sips of cool fluids if conscious and able to drink
- Bring their temperature down using any method available (sponging with cool water, cool shower, spraying with cool water from a hose or soaking clothes with cool water)
- Put cool packs under armpits, on the groin, or on the back of the neck to reduce body heat
- Do not give medication as it may be harmful
- If unconscious, lay the person on their side in the recovery position and check they can breathe properly
- Perform CPR if needed

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