

Heat Related Illness

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What is heat related illness

Heat-related illness can range from mild conditions such as rash or cramps to very serious conditions such as heat stroke.

Keeping well hydrated and cool is the best way to avoid heat-related illness.

How does heat affect the body?

The body operates within a core temperature range of about 37-39°C. Normally, the body maintains a healthy core temperature by increasing heat loss through sweating. When the ambient temperature is high, there is high humidity or a person is dehydrated, the ability of the body to regulate its own temperature is impaired and the body can become 'overheated'.

Who is at risk?

All people are at risk of heat-related illness; those at greatest risk are:

- people over 65 years
- babies and young children
- people with chronic diseases (high blood pressure, heart disease, respiratory disease, diabetes or circulatory diseases)
- people who are obese
- people on some medications
- people who are socially isolated
- people who work outdoors or in hot and poorly ventilated areas
- people engaging in vigorous physical activity in hot weather
- people who are not acclimatized to the heat, e.g., overseas visitors.

The health impacts of high temperatures are worse when:

- it is humid
- night time temperatures (i.e., daily minimum temperatures) remain high
- it is difficult to cool dwellings
- there are high pollution levels
- it remains hot for more than two days in a row.

What are the health effects and how are they treated?

Symptoms vary depending on the severity and type of illness. Babies and young children may show signs of restlessness or irritability and have fewer wet nappies. Adults may become lightheaded, confused, weak or faint.

Some common heat-related illness, their symptoms and the first aid treatment are:

Illness and Symptoms	• First Aid
<p>Heat rash is a skin irritation caused by excessive sweating characterised by small red itchy papules or small blisters on the face, neck, upper chest, under the breasts, groin or scrotum areas. It can occur at any age, but is most common in young children.</p> <p>Heat rash is also called 'prickly heat'.</p>	<ul style="list-style-type: none"> • Minimise sweating by moving to a cool or air conditioned environment • Keep the affected area dry • Try using unperfumed talcum powder to increase comfort. Topical antihistamine or antiseptic may reduce discomfort
<p>Heat cramps are painful muscle spasms, usually in the abdomen, arms or legs. They may occur after sustained strenuous activity in a hot environment. Heat cramps occur as a result of dehydration or loss of electrolytes through sweating and muscle fatigue. Heat cramps may also be a symptom of heat exhaustion.</p>	<ul style="list-style-type: none"> • Stop activity and move in a cool place • Stretch muscles and massage gently • Increase fluid intake, sports drinks will help • Rest a few hours before returning to activity • Seek medical help if there is no improvement
<p>Heat-related dizziness and fainting results from reduced blood flow to the brain. Heat causes an increase in blood flow to the skin and pooling of blood in the legs, which can lead to a sudden drop in blood pressure. There can be a feeling of light-headedness before fainting occurs.</p>	<ul style="list-style-type: none"> • Get the person to a cool area, lie them down on their back and raise their legs and hips to increase blood return to the heart • If fully conscious, increase fluid intake • If they do not regain consciousness seek medical assistance
<p>Heat exhaustion is a serious condition that can develop into heat stroke. It occurs due to water and/or electrolyte depletion from exposure to heat or strenuous activity. Warning signs may include intense thirst, weakness, discomfort, paleness and sweating; rapid heart rate; rapid shallow breathing, muscle cramps (usually in the abdomen, arms or legs); headache; nausea and vomiting; or dizziness or fainting.</p>	<ul style="list-style-type: none"> • Get the person to a cool area and lay them down • Drink cool, nonalcoholic beverages • Rest • Take a cool shower, bath or sponge bath • Seek an air-conditioned or fan cooled environment • Wear lightweight clothing • If the person does not feel better, is confused or disoriented treat as heat stroke and transfer to hospital.
<p>Heat stroke is a medical emergency and requires urgent attention. Heat stroke occurs when the core body temperature rises above 40.5C and the body's internal systems start to shut down. Many organs in the body suffer tissue damage and the body temperature must be reduced quickly. Heat stroke is a medical emergency. Seek medical assistance immediately, cool the person and apply first aid.</p>	<ul style="list-style-type: none"> • Call triple zero (000) for an ambulance • Get the person to a cool, shady area and lay them down while you're waiting for emergency medical help • Cool the person rapidly, using whatever methods you can. For example, immerse the person in a tub of cool water; place the person in a cool shower; spray the person with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan them vigorously, put ice pack on the person's wrists, armpits, groin area and side of neck • If they are able to drink, give the person cool non-alcoholic drinks • Do NOT give the person alcoholic drinks. • If unconscious, position the person on their side and clear their airway • If medical attention is delayed, seek further instructions from ambulance or hospital emergency staff

Preparing for hot weather

Because hot weather can happen suddenly and without warning it is important to be prepared.

In Australia, it is always a good idea to carry drinking water at all times when away from a tap.

In hot conditions:

- drink plenty of water or other cool, non-alcoholic fluids (Check with your doctor if you are on limited fluids or fluid pills).
- stay indoors or in the shade whenever possible
- stay cool and keep air circulating around you. Use air-conditioning if you have it (if you don't have air-conditioning, consider visiting an air-conditioned shopping centre or public library)
- reduce physical activity and avoid vigorous exercise in hot weather
- if activity is unavoidable, rest often
- eat regular, light meals
- wear lightweight clothing
- take a cool shower, bath or sponge bath
- check on older, sick and frail people who may need help coping with the heat (at least twice a day)
- never leave a person or pets in a closed parked car.