NSW Health

# Learn the signs, symptoms, and first-aid for heat-related illness

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## Heat-related health problems associated with existing medical conditions

In those with existing medical conditions, heat exposure can cause heat-related health problems due to worsening symptoms of existing disease. Diseases that can increase the risk of heat-related health problems can include:

- heart disease
- lung disease
- diabetes
- kidney disease
- neurological disease
- mental illness

Read more about **heat and health problems associated with existing medical conditions** [https://www.health.nsw.gov.au/environment/beattheheat/Pages/existing-conditions.aspx] .

## Heat-related illness caused by heat exposure

Heat-related illness can affect anyone. Heat-related illness includes heat stroke, heat exhaustion, heat cramps and heat rash. Dehydration can increase the risk of developing a heat-related illness.

Heat-related illness can range from mild to severe and the response required includes:

- for **heat stroke:** immediate medical emergency care.
- for **heat exhaustion:** immediate first-aid and if symptoms do not improve, seek medical advice.

- for **heat cramps and heat rash**: may be treated by the individual but if symptoms do not improve seek medical advice.

## Heat stroke

### What is heat stroke?

Heat stroke is the most severe heat-related illness. In extreme heat, your body's ability to cool itself down can fail, causing your body temperature to increase to a dangerous level. If left untreated, this can result in permanent disability or death. Heat stroke requires immediate medical emergency care.

### Symptoms of heat stroke

Symptoms of heat stroke may include:

- confusion
- slurred speech
- agitation and altered mental state
- loss of consciousness
- profuse sweating or hot, dry skin
- muscle twitching or seizures
- rapid breathing
- a quick and strong pulse
- very high body temperature

### First-aid for heat stroke

> Heat stroke is extremely dangerous and can quickly threaten life. If you are concerned about heat stroke, **immediately call triple zero (000).**
>
> Seek advice from a doctor before taking aspirin, ibuprofen or paracetamol to treat the symptoms of heat stroke as they may be harmful.

- Get out of the heat to a cooler area indoors or shaded area outdoors.
- Lay down and elevate the feet.
- Loosen or remove clothing.
- Start to cool down any way you can: use a cool-water spray, apply a cool, damp sponge or cloth, wet clothes and skin, have a cool shower or bath, apply ice packs or crushed ice in a damp towel on the neck, groin and armpits.
- Drink small sips of water if able.

## Heat exhaustion

### What is heat exhaustion?

Heat exhaustion is your body's response to a loss of water and salt in hot weather, usually through excessive sweating or excessive physical activity.

### Symptoms of heat exhaustion

The symptoms of heat exhaustion include:

- pale skin
- headache
- nausea, vomiting
- dizziness, fainting
- weakness
- irritability
- thirst
- heavy sweating
- muscle cramps
- decreased urine output.

### First-aid for heat exhaustion

Heat exhaustion must be treated as it can quickly develop into severe illness.

- Get out of the heat to a cooler area indoors or shaded area outdoors.
- Loosen or remove clothing.
- Start to cool down any way you can: use a cold-water spray, apply a cool, damp sponge or cloth, wet clothes and skin, have a cool shower or bath, apply ice packs or crushed ice in a damp towel on the neck, groin and armpits.
- Drink water.

**If symptoms do not improve**, seek medical care. Call your doctor or **healthdirect** [https://www.healthdirect.gov.au/] on **1800 022 222**.

**If symptoms are worsening** and you are concerned about **heat stroke**, immediately **call triple zero (000).**

## Heat cramps

### What are heat cramps?

Heat cramps are the mildest form of heat-related illness. They are painful muscle cramps and spasms caused by your body's loss of salt due to excessive sweating.

Heat cramps can occur during or after intense exercise. Heat cramps can be a symptom of more serious heat exhaustion.

### First-aid for heat cramps

To relieve heat cramps:

- drink water
- rest in a cooler area indoors or shaded area outdoors.

**If symptoms do not improve** seek further medical attention. Call your doctor or **healthdirect** [https://www.healthdirect.gov.au/] on 1800 022 222.

## Heat rash

### What is heat rash?

Another effect of heat exposure can be heat rash. When excessive sweat blocks sweat glands a red, itchy rash with small bumps or blisters where skin touches skin may develop.

The neck, groin, armpits, inside of the elbow and under breasts are areas where heat rash can occur.

### First-aid for heat rash

Heat rash normally goes away without treatment and can be helped by keeping skin cool and dry.

Visit **healthdirect** [https://www.healthdirect.gov.au/heat-rash] for more information about how to treat heat rash, and when to seek medical device.

## Are you or someone you know at greater risk?

When a person is exposed to heat, the body responds in ways to keep the body temperature from getting too high.

Older people, people with existing medical conditions, babies and young children, outdoor workers, socially isolated people, people who are homeless and pregnant women are at risk of heat-related health problems.

For example, in hot weather babies and young children are unable to keep cool as easily as adults. And if you are aged over 65, age-related changes to your body can also increase the risk of heat-related health problems. This can result in a serious medical incident if you already have an existing disease.

# Related links

- **How hot weather affects the body**
- **Who is most at risk of heat-related illness** [https://www.health.nsw.gov.au/environment/beattheheat/Pages/people-most-at-risk.aspx]
- **Ways to look out for each other during hot weather**
- **Find a healthcare practitioner or service** [https://about.healthdirect.gov.au/nhsd]
- **Find your local Emergency Department** [https://www.emergencywait.health.nsw.gov.au/]

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