

Heat and Your Health

Public Health – Factsheet

How does heat affect my health?

Your body is always trying to keep a consistent temperature (about 37°C or 98.6°F) but becomes overworked if you are exposed to heat for too long. This can lead to dehydration, heat exhaustion, heat stroke (sun stroke), other serious illnesses or even death. Fortunately, most heat-related illnesses can be prevented or treated if you are aware of the risks and symptoms and take action to protect yourself and others.

Who is at risk from heat?

When it's hot out, everyone is at risk for heat related illnesses. However, the health risks are greatest for:

- older adults
- infants and young children
- people with chronic conditions, such as breathing difficulties or heart problems
- people who work or exercise in the heat (even if they are healthy), or
- other vulnerable people, like people experiencing homelessness, mobility issues, or confusion/altered mental status

Anyone can put themselves at risk by over-exercising in hot weather because the body has to work even harder to stay cool.

Certain drugs such as amphetamines, MDMA (ecstasy), cocaine, alcohol, and cannabis can alter mental status as well as increase the risk of hyperthermia. Some medications can also increase your risk, so it's important to ask your doctor or pharmacist whether the medication you're taking affects your ability to cope with heat.

What can I do to protect myself and others?

All heat illnesses can be prevented by following these simple steps:

- **Stay aware and be prepared**
 - Know daytime and nighttime temperatures—both outdoors and indoors—by checking your local weather forecasts and the thermostat in your home.
 - Stay up to date on weather alerts so you know when to take extra care.

- If you have an air-conditioner, make sure it's working properly before the hot weather starts.

- **Stay hydrated**

- Drink plenty of water (that's the best liquid) before you feel thirsty.
- Avoid alcoholic beverages, as they can increase the amount of water lost by the body.

- **Stay cool and keep out of the sun**

- Plan outdoor activities for cooler parts of the day, but remember to wear insect repellent since mosquitoes are out, too.
- If you are outdoors during the hottest part of the day, shade yourself from the sun with an umbrella or a wide-brimmed hat with lots of ventilation (to allow the sweat on your head to evaporate), wear loose-fitting, breathable, light coloured clothing, and remember to wear sunscreen to limit ultra-violet (UV) ray exposure.
- If there is no air-conditioning at home- go to a cool place such as an air-conditioned mall, public library, or community centre.
- Take a cool bath or shower or go for a swim to cool off.
- Avoid using your oven or other appliances that could heat your home more.
- Limit physical activities during the hotter parts of the day or exercise in an air-conditioned place.

- **Take care of yourself and others**

- Check on family members, neighbours and friends—especially older adults and those with chronic conditions. Visiting is best because it is easier to identify signs of heat illness that could be missed over the phone.
- Never leave people or pets in your care alone in closed vehicles or direct sunlight.

- **When do heat-related illnesses usually happen?**

- Some people are more sensitive to the effects of heat than others. However for most people, heat-related illnesses happen when temperatures are higher for a number of days, particularly if the nighttime temperatures do not drop or if humidity is high.

How does heat affect my body?

Exposure to heat can lead to a variety of symptoms ranging from mild to more severe and may include:

- headache
- nausea
- dizziness
- weakness or tiredness
- fainting
- confusion
- swelling of the ankles, feet or hands
- muscle cramps
- rapid breathing or rapid pulse
- dehydration, and
- elevated body temperature

What are the symptoms of heat exhaustion?

Heat exhaustion occurs when the body loses too much water and salt. Symptoms can include:

- headache
- nausea
- muscle cramps
- pale and clammy skin
- dizziness or fainting
- rapid breathing and/or heartbeat

If you or someone you know experiences any of these symptoms, move to a cool or shaded place immediately, drink sips of water, lie down and sponge yourself with cool water, if possible.

What is heat stroke?

Heat stroke (sun stroke) is the most serious type of heat illness and requires urgent medical attention. If someone you know experiences signs of heat stroke, dial 911 immediately.

During heat stroke a person will have a core body temperature that is above 40°C (105°F). Symptoms of heat stroke may include:

- headache
- red, hot, and dry skin
- dizziness

- confusion
- nausea
- rapid, strong pulse
- a complete or partial loss of consciousness

While waiting for help to arrive, immediately move the person to a cool place, sponge large areas of the skin with cold water and fan the person as much as possible. The longer a person's body temperature is above 40°C (105°F), the greater the likelihood of permanent effects or death.

How hot is too hot?

Extreme heat events or “heat waves” occur when weather conditions combine to create higher than normal temperature and humidity levels over a period of several days. This increases the potential for heat-related illnesses.

There is no universal definition of what is considered a “heat wave” or “too hot”, because these terms depend on what is considered normal for a specific location and person.

Temperatures that people from a hotter climate consider normal may be considered a heat wave in a cooler area if they are above what is normal for that area.

What is considered “too hot” can also vary from person to person depending on a variety of factors, such as age, chronic conditions, level of activity, and the level of acclimatization (what temperature the individual is used to for the given activity level), on a hot day.

Where can I get more information about heat and health?

Manitoba government:

www.manitoba.ca/health/publichealth/environmentalhealth/heat.html

Health Canada:

<https://www.canada.ca/en/health-canada/services/sun-safety/extreme-heat-heat-waves.html>

Call Health Links—Info Santé at 204-788-8200 or toll free 1-888-315-9257