

Extreme heat

Stay cool. Stay hydrated. Stay informed.

Overview

An extreme heat event occurs when the temperature during the day is very high, and the temperature at night stays warm, making it hard for our bodies to cool down. High humidity can make it even harder for our bodies to stay cool during and after hot days.

Since Canada's climate varies by region, people experience heat differently, and the associated risks change from place to place. For example, in Alberta, southern regions experience high temperatures more frequently than northern regions. As a result, the risk of heat varies depending on how often different areas experience high temperatures.

Heat events are occurring more often, lasting longer and increasing in severity; this trend is anticipated to continue.

Before a heat event

The Be Prepared program recommends you take steps before a heat event occurs to protect yourself and others.

Be Prepared tips:

- Know the risk. Everyone is at risk of extreme heat, but those most at risk include people with pre-existing medical and mental health conditions; older adults; young children/infants; people experiencing homelessness; those who [work outdoors](#), live alone, or are socially isolated; as well as those who don't have indoor cooling like air conditioning (especially residents who live above ground level). Always monitor and respond to your body's current condition. If you are prescribed medications, consult your health care provider to learn if they increase your risk when exposed to heat. Additionally, be aware that your heat tolerance may change over the course of your life. In some cases, changes to heat tolerance may make you more vulnerable to heat-related illnesses during extreme heat events.

Temperatures in urban centres can be approximately 3°C to 12°C higher than those in nearby rural communities. This is an "urban heat island effect."

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- Get informed. Download apps like [WeatherCan](#), [Alberta Emergency Alert](#) and [Alberta Wildfire](#) for alert notifications.
- Stay informed. Sign up for communications from the [Alberta Electric System Operator \(AESO\)](#) and from your utility providers, if offered, to receive service impact notifications.
- Start a conversation. Next time extreme heat is in the forecast, connect with people in your community. Ask questions like "How do you keep your home cool when temperatures rise? Is there a space in your home that stays cooler than other locations? If so, how do you keep it cool? If you can't stay cool at home, where would you go to get relief from the heat?"
- Make community connections. Find a heat buddy (an individual who checks on and supports you during a heat event), who can assist you with cooling your home, help you reach a cooler location if needed, recognize the signs of [heat-related illness](#), know when to call for help and check in on you a couple times a day when it gets hot. A buddy system is especially important for those who are most at risk from heat.
- Financially prepare. Set aside money each month to go towards an emergency savings account. Reach out to your insurance provider to learn about heat-related property damage. Find out what your insurance covers and what it doesn't cover. Ask what kinds of help your insurance company offers during and after an emergency.

To learn how to store water for emergencies, visit [Alberta.ca/Water-Shortages](https://alberta.ca/Water-Shortages).

- Gather supplies. Heat can impact your health and affect the services you rely on, such as power, water and communications. Extreme heat can damage transportation routes (e.g., roads, rail) and power lines and increases the likelihood of droughts, wildfires, urban fires and poor air quality.

Supplies to consider:

- Stored or bottled water for drinking, cooking and hygiene (four litres per person per day – gather more for pregnant women, those with illnesses and pets) and other non-caffeinated/non-alcoholic fluids
- High protein, non-perishable food and snacks
- Fire extinguisher
- Personal protective equipment like respirators (e.g., N95, KN95 or P100) or high-quality medical masks (e.g., an ASTM-certified mask). Visit [wildfire smoke and heat risks](#) to learn how to protect yourself from wildfire air quality issues

- Back-up power for medical, mobility, cooling and communication equipment and devices
 - Digital thermometer to monitor indoor temperatures to assess your risk of heat illness (31°C and warmer is dangerous for those most at risk)
 - Cooling sheet set, mattress topper and/or pillows
 - Ice maker, portable cooler, sun shelter/umbrella, sunblock (minimum SPF30), fans (handheld, electric, misting), spray bottles, ice packs, inflatable wading pool, etc.
- Make a plan. Extreme heat can make your home uncomfortable and dangerous. During hot weather, homes without indoor cooling will continue to get hotter with each passing day. Consider the following actions when building your emergency plan:
 - Identify areas in your home that stay the coolest; consider how you can keep them cool and set them up for sleeping.
 - Try [recipes](#) that don't require heat because appliances increase indoor temperatures.
 - Build a list of places you can visit with air conditioning (e.g., friends and family, libraries, shopping malls, community centers). Check with your community to learn if they establish cooling centres during heat events and consider parks, especially ones with water access or features and shaded green spaces. If you have pets, make sure to include places they can visit too.
 - Build emotional preparedness by developing coping and wellness actions to help you think clearer, make informed decisions and recognize when it is time to ask for help. Visit [211 Alberta](#) to find local information, resources and supports.

Visit [Alberta.ca/ExtremeHeat](https://alberta.ca/ExtremeHeat) for more information.

Extreme heat is dangerous. It impacts everyone and can lead to illness or death while also increasing the risk of other hazards (e.g., wildfire).

Mitigating heat risks

Consider investing in additions to your home that can help you address current and future heat risks. These additions can be big or small, done over time and when home repairs or replacements are needed.

When looking for a new home, whether buying or renting, consider asking about the home's current heat mitigation features to make more informed decisions on your future living conditions and budget. Make sure

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to understand how your home is affected by extreme heat before investing time and money. Keep reading to see what kinds of measures you can consider.

Indoors

- Install curtains, window coverings, reflective film or heat control coverings for windows.
- Inspect, and replace if needed, weather-stripping on doors, windows and window air conditioners to stop hot air from coming into your home.
- Upgrade to insulated double or triple pane windows.
- Insulate your home between walls, floors, ceilings and attics/crawl spaces. Older and thinner insulation is nearly ineffective for keeping heat outside and cooler air in.
- Install indoor cooling (e.g., ceiling fan, air conditioner, heat pump).

Check local, provincial and federal governments for grants, rebates and information that can assist you with making your home more heat resistant.

Outdoors

- Create shade by adding canopies, shutters, awnings and landscaping. Check [FireSmart](#) for tips on fire-resistant landscaping to reduce your home's risk to fire.
- Coat and seal your roof against UV rays and install vapour barriers. If in the market for a new roof, reduce heat absorption by using a light colour or if available, reflective materials (e.g., cool roofs).
- Install back-up power (e.g., generator).

When an [extreme heat event occurs with wildfire smoke](#), prioritize keeping cool, because overheating can be more dangerous to your health.

During a heat event

When a heat warning is issued, individuals and households in the affected area have a role to play in protecting themselves. By following the guidance in the heat warning, monitoring your local [Weatheradio](#), [health advisories](#), active [Alberta Emergency Alerts](#), staying informed on restrictions/bans (e.g., water restrictions or fire bans) and [conserving power](#) (i.e., reducing electricity use during peak times), we can collectively reduce the risks of extreme heat and help to prevent power outages.

Heat events can last days, with each day increasing the indoor temperature of homes without indoor cooling. When your home becomes too dangerous to stay, it might be time to relocate.

Keeping yourself cool

Indoors

It is important to keep your home as cool as possible during the day, as indoor temperatures peak in the evening hours. Staying cool at night will help you sleep so you can cope with the effects of extreme heat better.

- Drink water and other non-caffeinated/non-alcoholic fluids often to keep hydrated, even when you don't feel thirsty. If you struggle to hydrate, keep a glass of water next to the sink and have a drink every time you see it.
- Eat fruits and vegetables as they have high-water content. If your appetite is low, you may need to drink more water.
- [Check in](#) with loved ones, your heat buddy and community members throughout the day; especially if they are more vulnerable to the heat.
- Use a spray bottle for misting, apply ice packs, or cool down with wet towels or damp clothing. Immersing your forearms in cool water can help cool your core temperature.
- Close all windows and doors and use window coverings to stop the sun from coming in (aluminum foil, shiny side facing towards outside, works well).
- Close outside window coverings (cardboard works too).
- Use exhaust fans to cool spaces by moving cool air in and warm air/humidity out (e.g., bathroom fans and cooking vents).
- If possible, reduce oven and stovetop use.
- If you have indoor cooling, set the temperature between 22°C and 26°C to stay comfortable while reducing energy costs. Consider inviting people you know who don't have indoor cooling over for a visit for a brief escape from the heat. If you don't have indoor cooling, try visiting those who do.
- Before bed, create a cross breeze by opening windows and placing fans to pull cool air in and push hot air out, take a cool shower and apply a cold towel to your neck.
- If it is too hot to sleep indoors, find a safe place to sleep outdoors on your own property.
- Check with your community to find out if supports and services like water stations and cooling centers are available.

Where extreme heat events increase the risk of wildfires, municipal, provincial or federal governments may introduce levels of their fire ban systems to limit activities that cause wildfires.

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Outdoors

When temperatures are high, it is important to plan activities during the coolest part of the day. Check your [local forecast](#) daily to help plan your day and albertafirebans.ca before visiting Alberta's forested areas.

- Keep a water bottle in your bag.
- Watch for signs of [heat-related illness](#).
- Minimize physical activity.
- Take breaks in cool areas often. Our bodies store heat and take time to cool down.
- Wear sunblock and seek shaded areas, like a treed location. Umbrellas help to create shade and are cooler by several degrees.
- Wear materials that are loosely woven, lightweight, with a relaxed fit for air flow. Sportswear labels offer quick dry materials that wick away sweat and may offer UV protection. Hats that are wide brimmed or beaked help reduce heat absorption and protect your eyes.

Always follow the instructions given when alerts and advisories are issued for your area.

Pet heat safety

Many actions we take to stay safe during heat events also apply to our pets.

- Do not transport pets unless you must. During extreme heat events, pets prefer to stay home.
- Keep an eye on pets to monitor for [signs of distress](#) (e.g., excessive panting, drooling, vomiting). If you suspect heat stroke, get your pet to a veterinarian immediately.
- Keep their coats brushed and short to promote air circulation and avoid shaving them as their fur protects them from sun burns.
- Keep cages/crates clean and throw away untouched food so bacteria does not grow and cause illness.
- Get pets cooling gear like vests and mats.
- Use a spray bottle to give pets a cool misting.
- Depending what kind of pet you have, frozen treats and ice cubes in their water can help keep them cool.
- When pets are left home alone, leave them in a cool place with space to move around and access to water, and ask your heat buddy to check on them.
- When pets are outdoors, limit activities during the hottest parts of the day (10:00a.m. – 4:30p.m.) by taking them out in the morning and/or evenings and avoid high endurance activities like running and biking.



- Play in shaded areas and keep them off hot surfaces like pavement. Make sure they have access to cool areas for rest (e.g., under decks, large trees or bushes), or use umbrellas or tarps tied to trees to create shade.
- Beware that outdoor shelters, like dog houses and coops, heat up inside becoming dangerous for pets during hot temperatures.

Never leave people or pets in a vehicle where temperatures can spike quickly. If you see an unattended person or pet in distress during extreme temperatures, call 9-1-1.

Utility outages

Extended periods of hot, dry weather relate to drier conditions that can result in water disruptions and power outages. As temperatures rise, power consumption (e.g., indoor cooling, fans) and water use (e.g., watering gardens, lawns) rises too.

The AESO may issue a Grid Alert asking Albertans to conserve energy to prevent outages.

Outages happen for a variety of reasons and vary in duration. Always follow the directions from your utility provider.

When outages occur, they affect each of us differently. Not only are they a major inconvenience, but they can threaten our health and wellbeing.

- Stay away from downed power lines.
- Have a back-up emergency exit plan if you rely on elevators.
- Sign up for a medical alert program if you have critical needs.
- Install smoke and carbon monoxide detectors that have back-up battery power.
- Keep a checklist of to-do's before and after a power outage, such as unplugging appliances and electronics to avoid damage when the power is restored.

Visit [Alberta.ca/Outages](https://alberta.ca/Outages) and [Alberta.ca/Water-Shortages](https://alberta.ca/Water-Shortages) for more information.

After a heat event

Even though a heat warning may have ended, heat illness may not peak until a few days after the extreme heat event. Continue to monitor yourself and others for signs of heat illness.

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Reflect on your experience with the members of your household. Consider preparedness actions and home improvements you can do now, in the next few months and in the coming years that will help you navigate future heat events more safely.

Be Prepared tips:

- Inspect for heat-related property damage and replace/repair as needed.
- Check that mechanical equipment is working properly (e.g., exhaust fan(s), heat pump, air-conditioner, generator). Do they need inspection and/or servicing? If so, book a service appointment with a professional as soon as possible.
- Remove home heat mitigation measures as appropriate to promote temperature regulation.
- Restock supplies, including water, food and medications.
- If possible, set aside money monthly to invest in home improvements that will help make your home cooler.
- Ask your doctor to check if you need to adjust your health care regime while exposed to extreme heat.
- Connect with your heat buddy. Consider talking about your experience during the heat event. Was there anything you needed but didn't have on hand that would have made the situation more comfortable? What worked or didn't work for you? Are there any preparedness actions you plan to take to be more prepared for the next heat event?

With a better understanding of how you, your loved ones and your home are affected by extreme heat, consider creating/updating your emergency plan.

For more information



Visit [Alberta.ca/BePrepared](https://alberta.ca/BePrepared) or scan the QR code for the Be Prepared program.