

camh Heat Wave Response

A Guide for Clinicians June 16, 2025



Overview

Across the country, Canadians are increasingly feeling the impacts of climate change. A recent example is the 2021 western heat dome, which saw the highest temperatures ever recorded in Canada and led to significant illness and mortality, particularly among older adults and people with severe mental illness. This was the deadliest weather event in Canadian history.

With climate change, it is predicted that the frequency, severity, and duration of heat waves will continue to increase in Canada. As clinicians, it is crucial that we familiarize ourselves with the necessary measures to ensure the safety of ourselves, our patients, our families and the community at large from heat-related illnesses and emergencies.

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Temperature alerts

For **older adults**, those with **significant medical comorbidities** and **limited supports**, and those in **substandard housing**: heat warnings and responses should come into effect when temperatures are in excess of **25 degrees Celsius**.



For all **exposed populations**: heat warnings and responses should come into effect when temperatures exceed **30 degrees Celsius**.

Assessment: Signs and symptoms of heat illness

People with health vulnerabilities often have a reduced ability to sense and respond to heat. As a result, someone may not recognize when they are at risk of a heat-related illness and may not respond appropriately (e.g., seek a cool space, hydrate).

Classic signs and symptoms of heat stress include:

- feeling unwell
- headache
- weakness
- dizziness
- irritability
- skin feels very hot
- fatigue/tiredness
- excessive thirst
- sweating
- general weakness



Assessment: Identify those at risk

CAMH patients are vulnerable to heat extremes due to a number of considerations. In advance of heat extremes, clinicians should assess and flag the vulnerable patients on their caseloads. Key considerations in this assessment should include:

Age	<input type="checkbox"/> Older adults (60+ years) <input type="checkbox"/> Children <input type="checkbox"/> Youth	<ul style="list-style-type: none">• In older adults, significant heat stress happens at lower temperatures due to changes in thermoregulation (i.e., how the body maintains its internal temperature)• Older adults (60+ years) with age-related mental health issues will often face heightened risk due to isolation• Older adults with a history of falls also face heightened risks• Children and youth are at risk of experiencing greater anxiety and hopelessness (climate distress) than older populations
Pregnancy status	<input type="checkbox"/> Pregnant	<ul style="list-style-type: none">• Pregnant people are also at a higher risk, with implications for parental and fetal health and preterm birth
Past psychiatric history	<input type="checkbox"/> Severe mental illness	<ul style="list-style-type: none">• Patients with severe mental illness are more isolated and will have more challenges with problem solving and reducing the risks of heat exposure
Health status	<input type="checkbox"/> Asthma <input type="checkbox"/> Diabetes <input type="checkbox"/> Heart disease <input type="checkbox"/> Previous heat injury <input type="checkbox"/> Poor fitness	<ul style="list-style-type: none">• Comorbid chronic physical illnesses (e.g., asthma, diabetes, coronary artery disease), previous heat injury, current or acute illness, poor physical fitness and impaired or reduced mobility can greatly increase heat risks
Medication	<input type="checkbox"/> Antipsychotics <input type="checkbox"/> Anticholinergics <input type="checkbox"/> Stimulants <input type="checkbox"/> Lithium <input type="checkbox"/> Other medications	<ul style="list-style-type: none">• Psychotropic medications can affect thermoregulation, can represent risks for dehydrated patients and may be impacted when stored in overheated conditions• Antipsychotic, anticholinergic and stimulant medications may place individuals at higher risk of more severe heat-related symptoms• Dehydration can increase the risk of lithium toxicity
Substance use	<input type="checkbox"/> Intoxicated <input type="checkbox"/> Alcohol <input type="checkbox"/> Stimulants	<ul style="list-style-type: none">• Individuals in intoxicated states may have decreased awareness of and responsiveness to heat-related illnesses• Alcohol use increases the risk of dehydration• Sympathomimetic substances (e.g., cocaine, methamphetamines, MDMA) elevate body temperature and heart rate
People with disabilities	<input type="checkbox"/> Physical <input type="checkbox"/> Psychiatric	<ul style="list-style-type: none">• People with disabilities face unique challenges in adapting to heat extremes• They are more likely to have increased risks due to poverty• They are often overlooked in response plans
Social and physical environment	<input type="checkbox"/> Unhoused <input type="checkbox"/> Reduced access to water <input type="checkbox"/> Reduced access to cool spaces <input type="checkbox"/> Racialized communities	<ul style="list-style-type: none">• CAMH patients are more likely to live in exposed conditions (e.g., lack of housing, housing without air conditioning or adequate ventilation and insulation, or urban environments with little shade, water access and free access to cool spaces)• Racialized communities are more exposed and face poorer access to resources

Response

1 Take action if you suspect a medical emergency!

If someone is showing signs of disorientation, light-headedness, episodes of fainting, extreme fatigue, and/or vomiting, take immediate action and follow these steps:

1. **Call 911** or your region's emergency health care provider.
2. Have the individual lie down in a safe and comfortable position in a cool location if possible.
3. Remove extra clothing.
4. Apply cool, wet towels or ice packs around the body, especially on the neck, armpits and groin.
5. Stay with the individual while you wait for medical attention.



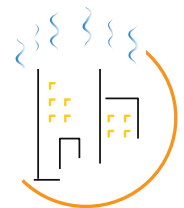
- ## 2
- Provide guidance to patients, their supports and other care team members on the strategies detailed below in the [“Heat wave action plan.”](#) Create tools (e.g., signs, messages, weather monitoring practices) to remind patients and supports of these response strategies and the symptoms of hyperthermia, which require emergency response. See also [Appendix A: Personal heat preparedness plan](#) for resources to help you and your patients stay safe.



- ## 3
- Conduct in-person or remote wellness checks for those at risk (see [Appendix B: Conducting in-person or remote wellness checks](#)).



- ## 4
- Advocate for access to air conditioning (Ontario Disability Support Program [ODSP] and Ontario Works [OW] have paths to assist).

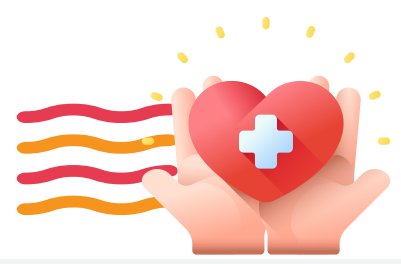


- ## 5
- Be aware of medication classes that affect thermoregulation. Recognize signs of dehydration and medication-related side-effects and toxicity. See [“Medications and climate change”](#) section below for side-effects worsened by heat and counselling points.



When planning for discharge and the intensity of outpatient support, education and advocacy, consider the vulnerability of the patient, as well as weather conditions (e.g., recommend increased supports when heat conditions present greater risk).

Heat wave action plan: Essential steps to stay safe



The following guidelines and actionable steps can help keep ourselves, our patients and the community at large safe during a heat wave.

Protect yourself

- Refrain from going out and engaging in activities during the hottest parts of the day, especially from 10 a.m. to 4 p.m.; plan essential activities for the cooler times of the day.
- Have water with you when you go out.
- Bring an umbrella when you go out and seek out shaded areas to protect yourself from the sun.
- Opt for lightweight, loose-fitting and light-coloured clothing. Do not wear multiple layers.
- Apply sunscreen with a sun protection factor (SPF) of 15 or higher before heading outdoors. Wear sunglasses and a hat.
- If you work in a hot environment, have a discussion with your employer and colleagues about strategies to minimize heat exposure.
- If working outdoors, take regular breaks.
- Refrain from engaging in intense physical activity.



Stay cool



- Close the blinds or draw the curtains during the hottest parts of the day. Keep the windows shut until it is cooler outside than inside. In the evenings, let the cool air in by raising blinds, drawing back curtains and opening windows.
- If you have air conditioning but your family or friends do not, invite them to your place to cool off.
- Go to a cooling centre, library, mall or other place with air conditioning during the hottest parts of the day.
- Take cool and refreshing showers or baths multiple times a day.
- Limit the use of heat-producing appliances, such as the stove, oven, clothes dryer, television, light fixtures, etc.
- Sleep in the coolest room of the house or the basement. Make sure the area is set up for comfort and has easy access to water and a washroom.
- **Note: Fans alone are not an effective strategy for reducing body temperatures during heat extremes. When your home is too hot, prioritize air conditioning or getting to a cooler location.**

Talk with your doctor, nurse and/or pharmacist

- Check with your doctor if you are following a restricted fluid intake diet. Your doctor may need to adjust your fluid intake during hot weather.
- Consult your doctor or pharmacist to find out if any medications you are taking or any health conditions you have may increase your risk in hot weather.



Stay hydrated

- Consume 8-12 glasses of fluids every day. You can get your fluids from water, cold soup/broth and fruits and vegetables that have a high water content.
- Refrain from consuming alcoholic beverages, as they cause dehydration.
- **Hydration is important but needs to be paired with other strategies.**

Stay connected and check in with those at risk

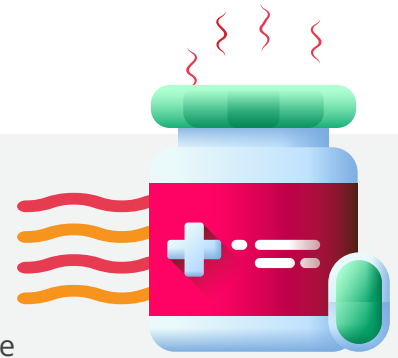


- Stay in touch with your friends and family every day to update them on your well-being.
- Be attentive to your own and others' well-being, especially children, older adults and sick people, and provide help if necessary.
- Keep an eye out for heat alerts and follow the advice provided by Environment Canada or your local public health authority.
- Take hyperthermia seriously. If someone is exhibiting the signs of heat stroke (i.e., confused, hot, dry or sweating profusely, muscle cramps, rash, fainting or unconscious, seizure) call 911 immediately.
- Urge individuals who might be in danger or who might be sensitive to heat to take cool baths, rest in the coolest part of their home, stay with friends and follow all of the guidance above.

Medications and climate change

According to the CDC, medications and heat interact in three primary ways:

- 1 Certain medications may interfere with a patient's thermoregulation and/or fluid balance, intensifying the risk of harm from hot weather.
- 2 Heat can degrade or damage some medications, and patients should be counseled on how to store their medication when temperatures are high.
- 3 Medications can increase skin sensitivity from sun exposure, and counseling on skin protection (e.g., sunscreen use) can aid in protecting patients.



Medicines may increase the risk of dehydration and heat-related illness, especially in older people taking multiple medicines, through the following mechanisms: reduced thirst sensation, sweat production, and cardiac output, altered/impaired thermoregulation and cognitive function, diuresis, electrolyte imbalance, sedation and hypotension..

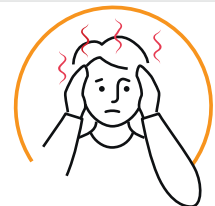
Many CAMH patients take psychotropic medications that may have risks and side-effects that are worsened with hot weather. It is important for clinicians to work with their patients to ensure the safe use of medications during heat emergencies.

Clinicians should first assess which classes of medications the patient is taking. Clinicians should then counsel the patient on the corresponding side-effects and risks that they should be attentive to. It is also critical to understand and communicate to patients about the risks of certain psychotropic medications when used in combination, with respect to heat exposure and in the context of other psychosocial risks:

Medication class Side-effects possibly worsened by heat

Antidepressants

- Nausea
- Dizziness
- Sweating
- Vomiting
- Diarrhea
- Fainting
- Headache
- Dry mouth
- Photosensitivity (i.e., skin becomes very sensitive to heat and sunlight)



Antipsychotics

- Reduced ability to thermoregulate during changes in environmental conditions
- Transient temperature elevation (Clozapine)
- Constipation
- Dry mouth
- Orthostatic hypotension
- Dizziness

Mood stabilizers

- Nausea
- Dizziness
- Vomiting
- Excessive thirst
- Dry skin/skin rash

Counselling points

Patients taking medications with possible side-effects worsened by heat should be advised to engage in the risk reduction activities detailed in the “**Heat wave action plan**” (see page 4).

Resources

- BC Centre for Disease Control. (n.d.). *Preparing for heat events*. <http://www.bccdc.ca/health-info/prevention-public-health/preparing-for-heat-events>
- Canadian Red Cross. (n.d.). *Heat waves: Before, during & after*. <https://www.redcross.ca/how-we-help/emergencies-and-disasters-in-canada/types-of-emergencies/heat-waves>
- Clinical Handbook of Psychotropic Drugs Online. (n.d.). <https://chpd.hogrefe.com/>
- Government of British Columbia. (2024). *Be prepared for extreme heat and drought*. <https://www2.gov.bc.ca/gov/content/safety/emergency-management/preparedbc/know-your-hazards/severe-weather/extreme-heat>
- Government of Canada. (2022). *Keep children cool! Protect your child from extreme heat*. <https://www.canada.ca/en/health-canada/services/publications/healthy-living/keep-children-cool-extreme-heat.html>
- Government of Quebec. (2023). *Extreme heat*. <https://www.quebec.ca/en/public-safety-emergencies/emergency-situations-disasters-and-natural-hazards/what-to-do-before-during-after-emergency-disaster/extreme-heat>
- Office of the Seniors Advocate British Columbia. (2023). *Heat wave preparedness and response*. <https://www.seniorsadvocatebc.ca/current-issues/heat-wave-preparedness-and-response/>
- Ottawa Public Health. (n.d.). *Extreme heat and humidity*. <https://www.ottawapublichealth.ca/en/public-health-topics/extreme-heat-and-humidity.aspx#What-to-do-in-a-heat-wave>
- Squamish Municipality. (2021). *Environment Canada issues heatwave warning*. <https://squamish.ca/your-government/news/environment-canada-issues>
- University of Winnipeg. (n.d.). *Heat wave*. <https://www.uwinnipeg.ca/emergency-guidelines/weather/heat-wave.html>
- US Centres for Disease Control. (2024). *Heat and Medications – Guidance for Clinicians*. <https://www.cdc.gov/heat-health/hcp/heat-and-medications-guidance-for-clinicians.html>
- Westaway K., Frank O., Husband A., McClure A., Shute R., Edwards S., Curtis J., & Rowett D. (2015). Medicines can affect thermoregulation and accentuate the risk of dehydration and heat-related illness during hot weather. *Journal of clinical pharmacy and therapeutics*, 40(4), 363–367. <https://doi.org/10.1111/jcpt.12294>

Appendix A: Personal heat preparedness plan

Check the boxes below as you prepare for a heat event, and review the heatwave **DOs** and **DON'Ts**. If you are unable to take any of the actions below on your own, ask for help from a friend, family member or support person.



Preparing for the heat event

- ☐ Check for heat alerts
- ☐ Fill out your [Heat preparedness plan: Personal and emergency information](#)
- ☐ Set up a cool living and sleeping area
- ☐ Plan your schedule to avoid going outside
- ☐ Check windows and air-conditioning are working
- ☐ Get groceries in advance
- ☐ Fill medication prescriptions
- ☐ Stock up on clean drinking water

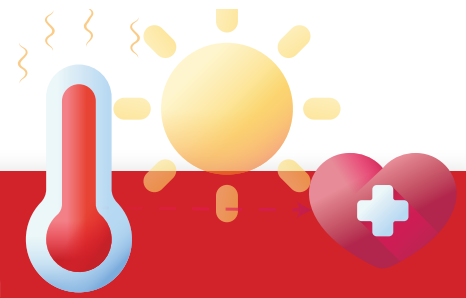
Heatwave DOs

- ☐ Contact friends and family regularly
- ☐ Block out the sun with window blinds
- ☐ Monitor the temperature in your home
- ☐ Stay hydrated
- ☐ Get to a cooler location if needed
- ☐ Keep taking any medication as prescribed

Heatwave DON'Ts

- ☒ Go outside in the daytime
- ☒ Use the oven or stove to cook
- ☒ Use alcohol and non-prescription drugs
- ☒ Wear layers or tight, heavy clothing
- ☒ Use a fan in temperatures above 33°C
- ☒ Engage in unnecessary physical activity or non-urgent chores in hot spaces
- ☒ Ignore signs of heat illness

Self-check guidance for people vulnerable to heat events



Consider using the steps below to help you prepare for and respond to an extreme heat. Also review them with your supports.

Awareness → Prepare → Respond



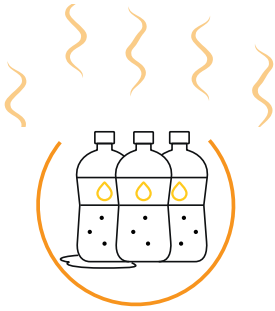
- A heat warning will typically be issued 24 to 48 hours before an extreme heat event. Check current heat alerts via the Public Weather Alerts website or the WeatherCAN app.
- Plan your schedule for the upcoming days to avoid going outdoors when possible. Try to reschedule outdoor activities until after the heat event has passed.
- Monitor heat alerts throughout the extreme heat event. Extreme weather can change quickly or last longer than expected.
- Limit physical activity both indoors (e.g., completing house chores) and especially outdoors. If you need to go outdoors, try to do so during the coolest parts of the day.

Medication and substance use → Prepare → Respond



- If you are taking medications, make sure your prescription is up to date. Some medications may increase risks of heat-related illness, so consult a health care provider for guidance if needed.
- Write down any medication(s) or health condition(s) in your [Heat preparedness plan: Personal and emergency information](#).
- Be aware that hot weather can cause mental and physical stress. Some people may use alcohol or non-prescription drugs as a coping strategy. Prepare alternative strategies you can use over the next few days.
- Continue taking your medication as prescribed, unless a health care provider has informed you otherwise. Suddenly stopping medications could trigger a heat-related illness.
- Keep your [Heat preparedness plan: Personal and emergency information](#) with you so that a medical professional or support person can access your medical information quickly if needed.
- Avoid using alcohol and non-prescription substances before and during an extreme heat event. Try to practise alternative coping strategies for managing the mental or physical stress of extreme heat.

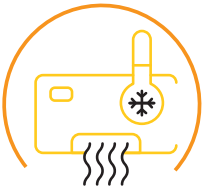
Heat-mitigating behaviours → Prepare → Respond



- Make sure you have access to clean drinking water for the heat event. Stock up if necessary.
- Prepare a meal plan for the next few days with meals that do not require the oven or stove. Purchase groceries in advance.
- Prepare lightweight, light-coloured, loose-fitting summer clothing to wear during the extreme heat event.

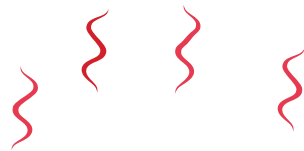
- It is important to drink water regularly to stay hydrated during hot weather, though feeling the need to drink excessively could be a sign of heat-related illness.
- Avoid using large kitchen appliances and electronics that can generate additional heat in the home.
- Wear your summer clothing during the day and to sleep, and wear a wide-brimmed hat if going outdoors. Avoid wearing layers of clothing.

Living space → Prepare → Respond



- Make sure your air-conditioner is working if you have one and that windows and blinds are functional.
- If possible, create a temporary living and sleeping space in a cooler area, such as the lowest level of the house (e.g., basement) or in a room that does not get direct sunlight.

- Turn on your air-conditioner if you have one. Open windows in early morning or late evening to generate air flow through the home, but use window shading like blinds to block the sun.
- Monitor the temperature in your living and sleeping space with a thermostat or thermometer and only activate a fan if the room temperature is below 33°C. Take cool showers before bed to stay cool.



Seeking support → Prepare → Respond



- In your [Heat preparedness plan: Personal and emergency information](#), write down contact information for people you can ask for support or call in an emergency.
- Identify locations you can go to and transport options if your home gets too hot.

- When possible, keep in contact with family, friends or caregivers.
- Go to a cooler location if your home gets too hot and seek medical attention if you are experiencing signs and symptoms of a heat-related illness.

Heat preparedness plan: Personal and emergency information

Keep this information with you in case of an emergency. You, a medical professional or a support person may need to access it quickly.

Name:

Medications:

Health Conditions:

Allergies:

Who can I call for help and support?

Name:

Name:

Phone:

Phone:

Address:

Address:

Where can I go if it is too hot at home?

Place:

Place:

Address:

Address:

Directions/transport:

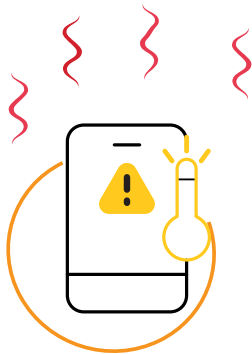
Local crisis hotline:

Appendix B: Conducting in-person or remote wellness checks

Use the steps below to conduct remote and in-person wellness checks before and during an extreme heat event.



Awareness



Ask

- Are you aware of the current heat warning and how long it is expected to last?
- Can you describe how your body feels when you are hot? Do you feel unwell or have any symptoms like disorientation or anxiety?

Prepare

- Encourage them to check current heat alerts via the Public Weather Alerts website or the WeatherCAN app.
- Becoming familiar with how they respond to and describe heat stress will help you both prepare for the extreme heat event.

Respond

- Keep monitoring heat alerts. Extreme weather can change quickly or last longer than expected.
- Watch for early signs of heat illness, as these can quickly evolve into life-threatening emergencies.

Medication and substance use



Ask

- Are you taking your medications as prescribed?
- Are you currently using any non-prescribed substances or drinking alcohol?

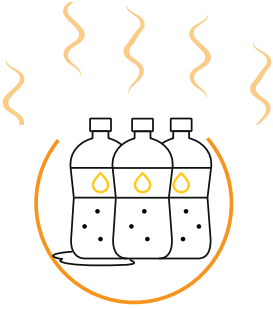
Prepare

- If they are taking medications, make sure their prescription is up to date. Help them write down any medication(s) or health condition(s) in their [Heat preparedness plan: Personal and emergency information](#) so that a medical professional or support person can access it quickly if needed.
- Some people may use alcohol or non prescription drugs as a coping strategy for mental and physical stress during extreme heat. Discuss alternative strategies they can use over the next few days.

Respond

- Encourage them to keep taking medication as prescribed, unless a health care provider has informed them otherwise. Suddenly stopping medications could trigger a heat-related illness. Consult a health care provider for guidance if needed.
- Encourage them to avoid using alcohol and non-prescription substances before and during an extreme heat event and support alternative coping strategies.

Heat-mitigating behaviours



Ask

- Do you have anything planned for the next few days that will require you to go outside?
- Are you dressed for the weather?
- Do you have accessible drinking water?
- Do you have a meal plan for the next few days? Have you gotten groceries?

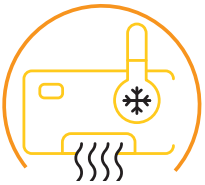
Prepare

- Help plan a schedule for the upcoming days to avoid going outdoors when possible. Reschedule outdoor activities until after the heat event has passed.
- Help select lightweight, light-coloured, loose-fitting summer clothing to wear during the extreme heat event.
- Make sure they have access to clean drinking water for the heat event. Help them stock up if necessary.
- Help to prepare a meal plan for the coming days that does not require an oven or stove and purchase groceries in advance.

Respond

- Limit physical activity both indoors (e.g., completing house chores) and especially outdoors. If they need to go outdoors, plan to do so in the cooler parts of the day.
- Encourage them to limit the amount of clothing worn. If going outdoors, encourage them to wear sunblock and a hat.
- Encourage them to stay hydrated, but be aware that drinking excessively could be a sign of heat-related illness.
- Remind them to avoid using large kitchen appliances and electronics that can generate additional heat in the home.

Living space



Ask

- Do you have access to air-conditioning?
- Is there a cooler location in your home that you can spend time in during the heat event?

Prepare

- Make sure their air-conditioner is working if they have one and that windows and blinds are functional.
- If possible, help create a temporary living and sleeping space in a cooler area, such as the lowest level of the house (e.g., basement) or in a room that does not get direct sunlight.

Respond

- Help to monitor the temperature in their living space to ensure indoor temperatures remain within a safe upper limit of 26°C.
- Encourage cooling strategies like turning on air-conditioning, opening windows to generate airflow, using window shading and cool showers before bed. Only activate a fan if the room temperature is below 33°C.

Seeking support



Ask

- Are you willing and prepared to seek medical care if needed?

Prepare

- Identify emergency contacts, cooler locations and transport options for if their home gets too hot. Help write them in their [Heat preparedness plan: Personal and emergency information](#). This can help medical professionals understand their needs and condition in an emergency.

Respond

- Isolating oneself during a heat wave can be dangerous. Encourage them to remain in contact with you and/or seek support of others. Let them know you will regularly check in on them and ask that they contact you.