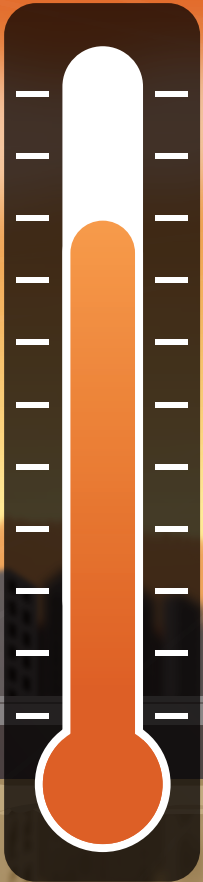




PreparedBC

Extreme Heat Preparedness Guide



A FOREWORD FROM THE PROVINCIAL HEALTH OFFICER

Early in the summer of 2021, we experienced an unprecedented extreme heat event that tragically led to the deaths of hundreds of people in British Columbia. Temperatures were at least 15°C higher than usual across the entire province, but some areas and some people were affected more than others. Most of the people who died were



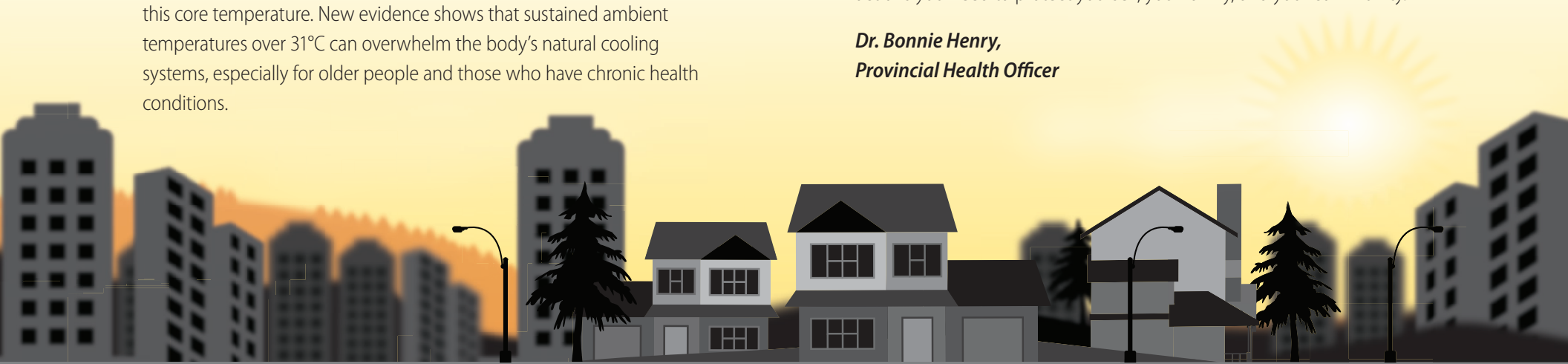
older or were people who had health conditions that put them at higher risk. Most of the deaths occurred inside private residences that got dangerously hot. Some people remember seeing indoor temperatures as high as 55°C on their thermostats.

The human body is calibrated for an optimal core temperature close to 36.6°C. When the surrounding environment gets very hot, the heart and other organs must work harder than usual to maintain this core temperature. New evidence shows that sustained ambient temperatures over 31°C can overwhelm the body's natural cooling systems, especially for older people and those who have chronic health conditions.

This Extreme Heat Preparedness Guide is a roadmap to help you, your family, and your community prepare for the next Extreme Heat Emergency in British Columbia. The extreme heat event of 2021 is a stark example that our climate is changing, and we must prepare for the expectation that these events will become more frequent, longer, and hotter in the decades ahead. The good news is there are many actions we can take both as individuals and in our community to prevent heat-related injuries and deaths – staying cool means staying safe.

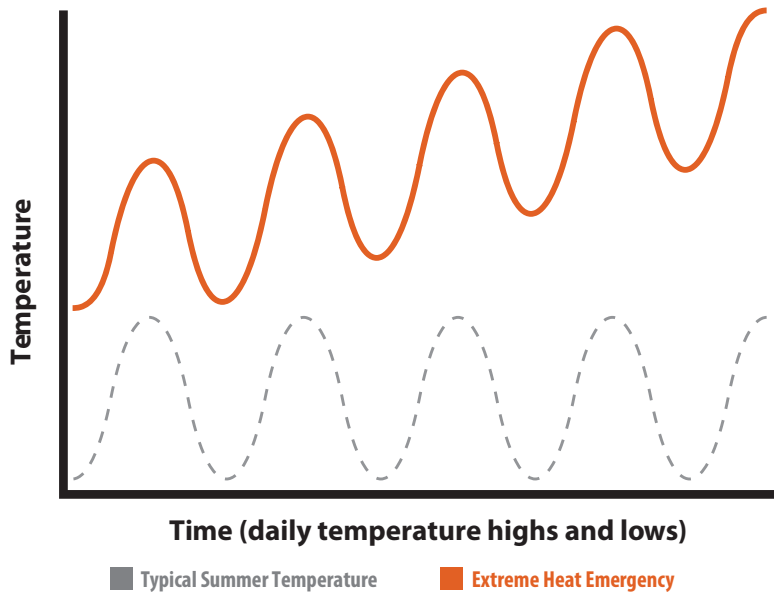
Some people in our families or in our community are at higher risk than others during Extreme Heat Emergencies, but we all go through them together. With careful planning and preparation before the next big event we can collectively identify those at higher risk and use some simple strategies to help them stay safe. Strong social connections are critically important during all types of emergencies, including extreme heat events. This guide provides the best advice we have now about how to stay safe and I encourage everyone to read it and take the actions you need to protect yourself, your family, and your community.

Dr. Bonnie Henry,
Provincial Health Officer



What is Extreme Heat?

An Extreme Heat Emergency is when daytime and nighttime temperatures get hotter every day and are well above seasonal norms.



Extreme heat is dangerous for the health and wellbeing of our communities and is responsible for the highest number of weather-related deaths annually.

In 2021 alone, the BC Coroners Service attributed 595 deaths to the extreme heat event that occurred between June 25 and July 1. Most of those deaths resulted from excessive indoor temperatures in private residences.

CLIMATE CHANGE CONNECTION

British Columbia is experiencing higher summer temperatures and more extremely hot days due to climate change. Average temperatures in Western Canada are already 1°C to 2°C warmer than they were in the 1940s.*

Higher average temperatures lead to a higher likelihood of Extreme Heat Emergencies like the heat dome experienced in 2021. It is critical that people understand the risks, prepare for these conditions, and know where to access support.

*Source: Canada in a Changing Climate; Government of Canada

TABLE: 2021 Record Temperatures

Source: Environment and Climate Change Canada

Location	Average (June, July)	Record	Date (of all-time max temperature)
Lytton	24.1°C, 28.1°C	49.6°C**	June 29, 2021
Kamloops	25.1°C, 28.9°C	47.3°C**	June 29, 2021
Abbotsford	20.8°C, 24.0°C	42.9°C**	June 28, 2021
Quesnel	21.7°C, 24.1°C	41.7°C**	June 29, 2021
Victoria (Gonzales)	17.9°C, 19.8°C	39.8°C**	June 28, 2021

**Record-high temperature at the time of this guide's publication

Before Summer

There are many things you can do to prepare for an Extreme Heat Emergency.

The following section walks you through basic readiness steps and heat specific considerations for your emergency plan. Discuss them with your family, friends, and members of your household and use the spaces provided to write notes.



TIP: You can also find and download our fill-in-the-blanks emergency plan at: preparedbc.ca/emergencyplan. It will have you covered for any emergency.

1. IDENTIFY THOSE WHO ARE AT RISK

While everyone can benefit from planning and preparing for Extreme Heat Emergencies, the following people are especially at-risk if they do not have access to air conditioning. They need to be prepared and supported:

- seniors aged 65 years or older
- people who live alone
- people with pre-existing health conditions such as diabetes, heart disease or respiratory disease
- people with mental illness such as schizophrenia, depression, or anxiety
- people with substance use disorders
- people who are marginally housed
- people who work in hot environments
- people who are pregnant
- infants and young children
- people with limited mobility

2. EVALUATE IF YOU CAN STAY AT HOME

If you are at risk and you live in a building or residence that gets very hot, with inside temperatures of 31°C or higher, plan to go elsewhere during an Extreme Heat Emergency.

3. EVALUATE YOUR HOME'S COOL ZONES

Some areas of your residence may stay cooler than others. During an Extreme Heat Emergency, you should prepare to stay in the coolest part of the residence and focus on keeping that one location cool.

Start by identifying a room that's typically coolest and consider how you can modify the layout to support sleeping and day-to-day living for the duration of the heat event.

4. IDENTIFY OTHER LOCATIONS TO GET COOL

If it is not safe for you to stay at home, consider staying with friends or family that have air conditioning or cooler spaces. Alternatively, identify places in your community you can visit to get cool such as:

- libraries
- community centres
- shopping malls
- movie theatres
- religious centres
- parks and other shaded green spaces

You can also contact your First Nation or local government to find out if cooling centres will be available in your area.

4. IDENTIFY OTHER LOCATIONS TO GET COOL (CONTINUED)

Ideally, choose a location where you will enjoy spending time, as it can take a long time to cool off after getting overheated. Consider whether you will have access to water or if you should bring some with you to stay hydrated.

Identify and write down any locations you can visit to get cool:

Location	Address
.....
.....
.....

5. IDENTIFY AN EXTREME HEAT BUDDY

If you live alone, find an extreme heat buddy to check in on you when it gets hot, and who you can also reach out to for help.

Your buddy should be someone who can take you to cooling centres or help with cooling measures in your residence:

Name	Contact info
.....
.....
.....

6. PREPARE YOUR HOME

A few modifications can make a big difference during periods of extreme heat. Options include:

INDOORS:

- Install a window air conditioner in at least one room
- Install thermal curtains or window coverings
- Keep digital thermometers available to accurately measure indoor temperatures (31°C or higher is dangerous for vulnerable people)
- Have fans available to help move cooler air indoors during the late evening and early morning hours

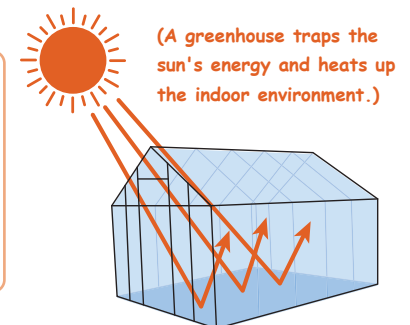
TIP: Fans cannot effectively reduce body temperatures or prevent heat-related illness in people at-risk. Do not rely on fans as your primary cooling method during an Extreme Heat Emergency.

- Install a heat pump (for info: betterhomesbc.ca/heatpumps)

OUTDOORS:

- Install exterior covers or reflective films that block the sun from hitting the windows. This can be as simple as applying cardboard to the outside of the window

Did you know? When the sun shines through windows it causes the indoor environment to heat up, like a greenhouse. Keeping the sun off exterior windows can decrease indoor temperatures by 2°C to 3°C.



As Temperatures Rise

7. KNOW WHERE TO FIND INFORMATION

Pay attention to the media, Environment Canada, Emergency Info BC and your health authority for more information about Heat Warnings and Extreme Heat Emergencies.

Alert	Threat	Action
Heat Warning	Daytime and overnight temperatures are higher than seasonal norms and holding steady.	Take usual steps to stay cool.
Extreme Heat Emergency	Daytime and overnight temperatures are higher than seasonal norms and getting hotter every day.	Activate your emergency plan.

You can do this by following the trusted sources below:

Environment Canada

https://weather.gc.ca/warnings/index_e.html?prov=bc
 @ECCCWeatherBC

HealthLinkBC

www.healthlinkbc.ca

BC Centre for Disease Control (BCCDC)

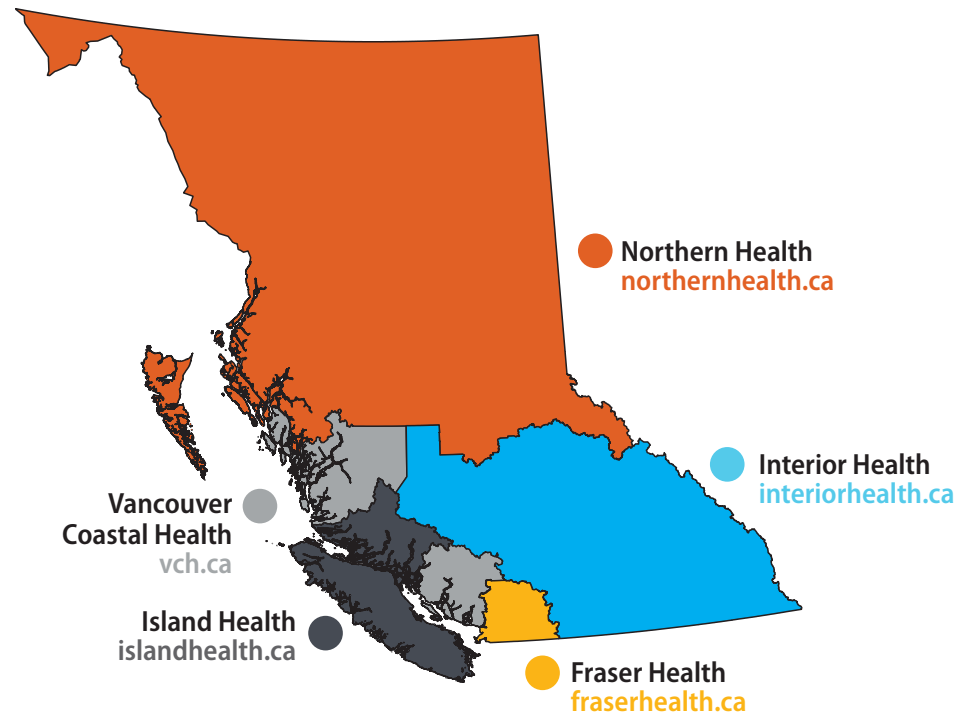
bccdc.ca @CDCofBC

First Nations Health Authority (FNHA)

fnha.ca @FNHA facebook.com/firstnationshealthauthority

Regional Health Authorities

There are 5 regional health authorities in BC. They govern, plan and deliver health-care services for their geographic areas. Your local regional health authority is another great source for information:



Emergency Info BC

EmergencyInfoBC.ca @EmergencyInfoBC

Health Canada

canada.ca/en/public-health @GovCanHealth
facebook.com/HealthyCdns @CPHO_Canada



8. ACTIVATE YOUR PLAN TO STAY COOL

An Extreme Heat Emergency will typically be identified three to four days before the hottest temperatures occur. Check the weather daily when it is hot outside. If an Extreme Heat Emergency alert has been issued, it's time to put your plan into action:

- Relocate to a cooler location if you have planned to do so
- Reconfigure the coolest location in your home so you can sleep there at night
- Check in with your pre-identified heat buddy. If you don't have one, try to reach out to someone you trust as soon as possible
- Put up external window covers to block the sun if you can safely do so
- Close your curtains and blinds
- Ensure digital thermometers have batteries
- Make ice and prepare jugs of cool water
- Keep doors and windows closed between 10 a.m. and 8 p.m. to trap cooler air inside. Open them at 8 p.m. to allow cooler air in, and use fans (including kitchen and bathroom exhaust fans) to move cooler air through the house



TIP: Outdoor temperatures usually peak around 5 p.m. in BC, but indoor temperatures usually peak around 9 or 10 p.m. Sleeping in an air-conditioned space or outside is a good option for staying cool if you can safely do so.

During Extreme Heat

9. STAYING COOL INSIDE

In homes without air conditioning, heat builds indoors over the course of a few days. It may stay hotter inside than outside overnight. Without air conditioning, the longer the heat lasts, the more dangerous it becomes.

Take the following steps to keep yourself and members of your household safe:

- If you have air conditioning, turn it on. It does not need to be going full strength to help you stay safe
- If you have air conditioning, and vulnerable friends and family do not, bring them to your home
- If you do not have air conditioning, move to your pre-identified alternate location with air conditioning or cooler spaces
- Sleep in the coolest part of the residence. Outdoor temperatures are usually lower than indoor temperatures overnight, so consider sleeping outside if you can safely do so
- Sleep with a wet sheet or in a wet shirt
- Take cool baths or showers to draw heat from your body
- Drink plenty of water, regardless of whether you feel thirsty. Be aware that sugary or alcoholic drinks cause dehydration
- If you are taking medication or have a health condition, ask your doctor or pharmacist if it increases your health risk in the heat and follow their recommendation
- If your doctor limits the amount you drink, or has you on water pills, ask how much you should drink while the weather is hot

10. STAYING COOL OUTSIDE

- Lower your activity level and avoid strenuous activity. If you must do errands or plan to exercise, do so early or late in the day when it is generally cooler
- Never leave children or pets in a parked car
- Avoid direct sun by staying in the shade and wearing a hat and protective clothing. Use sunscreen and UV-protective eyewear
- Seek cooler, breezier areas when outdoors, such as large parks near to trees and water
- If you work in a hot environment, discuss and act on ways to decrease heat exposure with your employer and coworkers



TIP: Pets are part of the family too. Make sure they have plenty of water and are with you in cool locations. When outside, stay in shady areas and avoid asphalt and pavement. Those surfaces can burn paws.

11. WHAT TO DO IF YOU ARE GETTING TOO HOT

Overheating can be harmful to your health and potentially deadly. If you're experiencing symptoms such as rapid breathing, rapid heart rate, extreme thirst, and decreased urination with an unusually dark yellow colour, take immediate steps to cool down and seek emergency care:

- Get medical attention, or call 911 or your local emergency number
- Submerge yourself or the person you're helping in cool water
- Remove clothes and apply wet cloths to the skin



Heat stroke is an emergency. Call 911 or your local emergency number if you are caring for someone who displays symptoms, then take immediate action to cool them down while waiting for help to arrive.

12. CHECK IN ON YOUR HEAT BUDDY AND NEIGHBOURS

Consider checking in on your pre-identified heat buddy from **page 8**, as well as your neighbours - especially those that are homebound or alone. Check in multiple times a day, especially later in the day when it is hottest.

13. PREPARE FOR WILDFIRES AND SMOKE

Extreme heat can lead to periods of drought and a higher risk of wildfires. For most people, exposure to extreme heat is a bigger risk to health than exposure to wildfire smoke. If you cannot get cool inside, go outside even if there is smoke.

Visit www.bcwildfire.ca for information on current wildfire activity, wildfire prevention and active fire bans and restrictions.

Go to www.preparedbc.ca/wildfires for information on how to get prepared for a wildfire.

Go to <http://www.bccdc.ca/wildfiresmoke> for details on the health impacts of wildfire smoke.

14. ADDITIONAL RESOURCES

For additional resources, please visit www.preparedbc.ca, where you can learn about how to prepare for, respond to and recover from the top hazards in BC, such as wildfires, floods, and earthquakes.



PreparedBC

This material has been prepared by the Province of British Columbia in cooperation with:



Ministry of Health



BC Centre for Disease Control
Provincial Health Services Authority

