

Wildfire smoke with extreme heat

In Canada, wildfire season occurs between April and October each year and can coincide with periods of extreme heat. It is important to know how to protect your health when exposed to wildfire smoke and extreme heat together, as they can both harm your health.

When there is an extreme heat event occurring with wildfire smoke, prioritize keeping cool, because overheating can be more dangerous to your health.

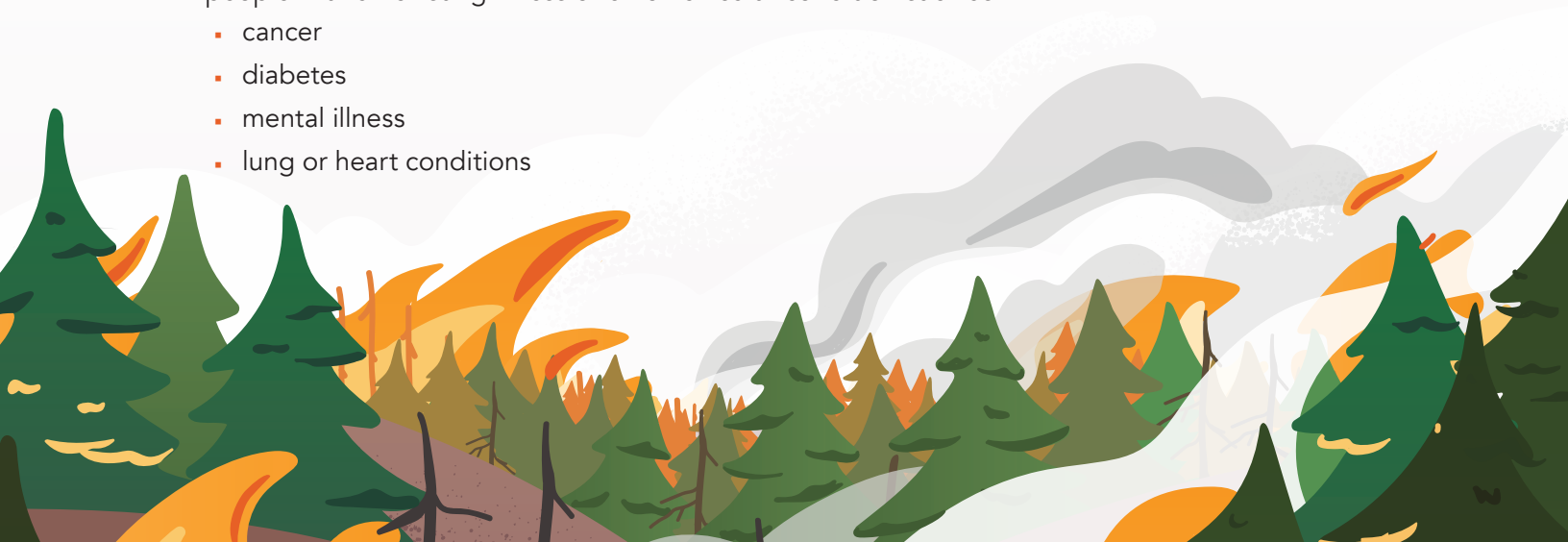
People at risk of wildfire smoke and extreme heat

It's important to frequently check on those who are in your care, neighbours, friends and older family members, especially those who are more likely to be harmed by heat or smoke.

Extreme heat and wildfire smoke can put everyone's health at risk. However, some people are more likely to be harmed by heat and wildfire smoke. Some people are more likely to be at risk because they are exposed more frequently to high levels of heat and/or wildfire smoke. Others are more likely to experience symptoms or health effects when exposed to heat and/or wildfire smoke.

Those who are most at risk of health effects of heat and/or wildfire smoke exposure include:

- seniors
- pregnant people
- infants and young children
- people with an existing illness or chronic health condition such as:
 - cancer
 - diabetes
 - mental illness
 - lung or heart conditions



- people who smoke
- Indigenous Peoples
- people taking certain medications
- people who live alone or are socially isolated
- people with social and economic challenges
- people experiencing homelessness or housing insecurity
- people with mobility restrictions, such as those who:
 - aren't able to walk
 - are bed-ridden and unable to easily seek shelter from heat or smoke
 - people without access to personal or public transportation
- people who live in dense urban areas
- people who work or exercise outdoors
- people who live in rural or remote areas
- people who live in a home without air conditioning
- people who work or exercise indoors without adequate cooling or ventilation

Signs, symptoms and health effects of extreme heat and wildfire smoke exposure

Pay attention to the signs and symptoms of heat-related illnesses and wildfire smoke exposure.

Watch for the signs and symptoms of heat-related illness, as these can rapidly evolve into life-threatening emergencies. Listen to your body and take action if you or someone around you is experiencing signs or symptoms.

Exposure to extreme heat can cause a range of mild to severe heat-related illnesses.

Mild and moderate heat-related illnesses include:

- heat rashes
- heat cramps
- heat exhaustion

Signs and symptoms of mild and moderate heat-related illnesses may include:

- fatigue
- nausea
- fainting
- dizziness
- headache
- weakness
- changes of behaviour
- elevated body temperature

If you or someone around you experiences any of these signs and symptoms during extreme heat, immediately:

- stop all activity
- move to a cool place
- hydrate: drinking water is best

If symptoms don't improve or if they get worse, seek medical assistance.

Severe heat-related illness includes heat stroke. Signs and symptoms of heat stroke may include:

- seizures
- vomiting
- chest pain
- difficulty breathing
- loss of consciousness
- high body temperature
- confusion, delirium and lack of coordination

If you or anyone in your care experience any of these severe symptoms, this is a health emergency. Call 9-1-1 and seek immediate medical care.

While waiting for help, try to cool the person down by:

- moving to a cool place
- removing excess clothing, if possible
- applying cold water or ice packs to the armpits, groin and neck, or misting them with water and fanning them.

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Milder and more common symptoms of wildfire smoke exposure include:

- headaches
- a mild cough
- production of mucus
- nose, throat, eye and sinus irritation

In many cases, you can manage these symptoms without medical intervention.

More serious but less common symptoms of wildfire smoke exposure include:

- dizziness
- wheezing
- chest pains
- severe cough
- asthma attacks
- shortness of breath
- heart palpitations (irregular heart beat)

If you experience any of these symptoms, talk to a health care provider or seek urgent medical attention.

Less commonly, wildfire smoke exposure can lead to:

- stroke
- heart attack
- premature death
- reproductive and developmental effects, such as low birth weight

If you think you are having a medical emergency, dial 9-1-1 and seek immediate medical care.

Protect yourself from extreme heat and wildfire smoke while outdoors

Regularly check local weather forecasts, heat alerts and local air quality conditions using the Air Quality Health Index or special air quality statements. This will help you know when to protect yourself from the heat and determine whether smoke is impacting your area.

Limit time outdoors. Listen to your body. If you experience signs or symptoms of heat-related illness or wildfire smoke exposure, consider reducing or stopping strenuous outdoor activities.

If you need to work outdoors, check with your provincial or territorial occupational health and safety organization or your local health authority. They can provide more information on how to reduce your exposure while working outdoors during extreme heat and wildfire smoke events.

Try to reschedule or plan outdoor activities during cooler parts of the day, if possible. Take extra breaks in the shade or in a cool area, drink plenty of liquids (especially water) and remove extra clothing or gear to let your body cool off during breaks.

If you're among the groups who are more likely to be impacted by heat or wildfire smoke, you should:

- reduce or reschedule activities outdoors
- seek medical attention if experiencing symptoms of heat-related illness or wildfire smoke exposure

If you must spend time outdoors, a well-fitting and properly worn NIOSH-certified N95 or equivalent respirator (KN95 or KF94) mask may help reduce your exposure to fine particles in smoke. These particles pose the main health risk from wildfire smoke. The respirator doesn't protect against the gases in smoke.

When wearing a respirator, it's important to listen to your body. If you need to remove your respirator, try to move to an area with cleaner air before removing it. Respirators shouldn't be used by:

- children under 2 years of age
- someone who has trouble breathing while wearing the mask
- someone who needs help to remove it

Protect your indoor environment from overheating and wildfire smoke

It's important that the air indoors is cool and as clean as possible. **When there's an extreme heat event happening, indoor temperatures can get dangerously high.**

When extreme heat and wildfire smoke occur at the same time, it can be challenging to know if you should open your windows for cooling or close your windows due to the smoke. Remember that protecting yourself from heat is the priority. If you don't have air conditioning and the outdoor temperature is cooler than the indoor temperature, opening your windows can help cool your home.

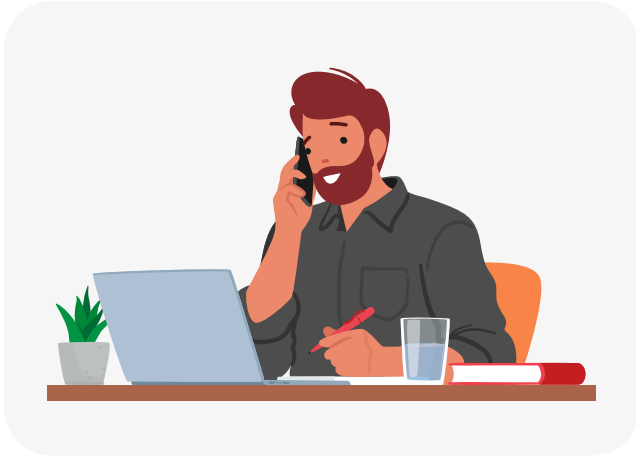
Tips to keep cool and protect your indoor air from wildfire smoke

- Keep windows and doors closed as much as possible. When there's an extreme heat event occurring with a wildfire smoke event, prioritize keeping cool.
- Block the sun by closing awnings, curtains or blinds during the day.
- If you have air conditioning, use it to keep your home cool
- Make meals that don't need to be cooked in an oven. Using appliances will increase the indoor temperature.
- Use a clean, good quality air filter in your ventilation system based on the manufacturer's recommendations.
- Use a certified portable air cleaner that can filter fine particles.
- Limit the use of exhaust fans, such as bathroom fans.

Physical activity indoors during heat and wildfire smoke

Listen to your body and stay aware of any symptoms of heat-related illness or wildfire smoke exposure even when you're exercising indoors.

- When indoor temperatures are high, limit indoor physical activity, such as:
 - cleaning
 - exercise
- When wildfire smoke is present for more than a few days, try finding a place with cleaner air to exercise indoors, such as:
 - at home
 - the gym
 - the community centre



If you need more support during an extreme heat and wildfire smoke event, contact your local authorities. They can provide information on public spaces you can access with air conditioning and filtered air. Seek out local cooling centres or cleaner air spaces to take a break from the heat or smoke if you:

- don't have access to air conditioning and it's too warm to stay inside with the windows closed
- can't maintain cleaner air indoors during a wildfire smoke event

For more information on extreme heat and health, visit canada.ca/extremeheat

For more information on wildfire smoke and health, visit canada.ca/wildfiresmoke or contact us at air@hc-sc.gc.ca