Wildfire Smoke 101 – Wildfire Smoke and Your Health

Wildfire smoke and pollution levels

Wildfires can significantly increase air pollution levels. Wildfire smoke is a complex mixture of gases, particles, and water vapour that contains:

- ozone
- sulphur dioxide
- nitrogen dioxide
- carbon monoxide
- volatile organic compounds
- fine particulate matter (PM2.5)

These pollutants can harm your health, with PM2.5 posing the greatest risk.

There is no evidence of a safe level of exposure for most of these pollutants. This means that smoke can impact your health even at very low levels. As smoke levels increase, your health risks increase. Air quality may be decreased even if you can’t see or smell smoke.

Symptoms of smoke exposure

Milder and more common symptoms of smoke exposure include:

- headaches
- a mild cough
- a runny nose
- production of phlegm
- eye, nose and throat irritation

These symptoms can typically be managed without medical intervention.

More serious symptoms include:

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

If you have any of these symptoms, talk to a health care provider or seek urgent medical attention. Less commonly, exposure to wildfire smoke can lead to heart attack, stroke and even premature death. If you think you are having a medical emergency, dial 911 and seek immediate medical assistance.

Some people are at a higher risk of health problems when exposed to wildfire smoke including:

- seniors
- pregnant people
- infants and young children
- people who work outdoors
- people involved in strenuous outdoor exercise
- people with an existing illness or chronic health conditions, such as:
    - cancer
    - diabetes
    - mental illness
    - lung or heart conditions

Reduce your exposure to wildfire smoke

The best way to protect your health is to reduce your exposure to wildfire smoke.

General

- Pay attention to the Air Quality Health Index (AQHI), special air quality statements or other indicators of smoke

levels in your community. If necessary, limit outdoor activity and strenuous physical activities. If you have difficulty breathing, stop altogether.
- 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 guidance on how to work safely outdoors during wildfire smoke events.

Indoors and at home

- Keep windows and doors closed as long as the temperature is comfortable.
- Use recirculation settings on your HVAC system to prevent smoke from entering your home.
- Use a clean, good quality air filter (for example, HEPA) in your ventilation system.
- Use an air purifier that uses HEPA filtration to remove smoke from your home. For more information on selecting an air purifier that is appropriate for your needs, refer to the “Using an air purifier to filter wildfire smoke” factsheet.
- Visit community centres, libraries, and shopping malls. These places often have cleaner filtered air and can provide a break from the smoke.
- Please be sure to respect the guidance on physical distancing from your local authorities.
- Keep vehicle windows closed and set the ventilation system to recirculate.

Other recommendations to protect your health

Drink plenty of water to help your body cope with the smoke. Check on others who are in your care or live nearby who may be more vulnerable to smoke.

Avoid vacuuming and burning candles, incense or other materials.

If smoke is present for more than a few days:

- stay active when you can. Try finding a place with clean air to exercise indoors, for instance at the gym, the community centre or at home. Consult the AQHI to look for breaks in the smoke to find opportunities to go outdoors.
- don’t forget to take care of your mental health. It’s not unusual to feel anxious, stressed out, sad or isolated during a smoke event. Eating well, getting enough sleep, exercising and staying in contact with friends can help. Anyone who is having trouble coping with symptoms of stress, anxiety or depression should seek help from a health care provider.

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