

Health Effects of Wildfire Smoke

Wildfire smoke is a complex mixture of fine particulate matter (PM_{2.5}) and gases, such as carbon monoxide, nitrogen oxides, and volatile organic compounds. The mixture can change depending on the fuels, the weather, and the distance from the fire. Wildfire smoke causes episodes of the worst air quality that most people will ever experience in Yukon,

Although wildfire smoke is different from air pollution caused by traffic or industry, it is also harmful to human health.

- Smoky air makes it harder for your lungs to get oxygen into the blood.
- Wildfire smoke can irritate your respiratory system and cause an immune response, which may lead to inflammation that affects other parts of your body.
- Common symptoms include eye irritation, runny nose, sore throat, mild cough, phlegm production, wheezy breathing, or headaches. Such symptoms can usually be managed without medical attention.
- Some people may have more severe symptoms, such as shortness of breath, severe cough, dizziness, chest pain, or heart palpitations. You should seek prompt medical attention if you experience any of these symptoms.
- Smoky air may increase risk of some infections, such as pneumonia in older people and ear infections in children.

Reducing exposure to wildfire smoke is the best way to protect your health.

- Portable air cleaners that use HEPA filtration can effectively remove smoke particles from the indoor air.
- If you have forced air heating, talk to your service provider about what filters and settings to use in smoky conditions. Different filters and settings can help minimize the amount of wildfire smoke that enters your home.
- Libraries and community centres often have cooler, filtered air that can provide a break from outdoor smoke.
- When driving, keep the windows up, the air conditioner on, and use the recirculate setting to limit intake of the outdoor air.
- The harder you breathe, the more smoke you inhale. Take it easy during smoky periods, consider staying indoors and drink lots of water to help your body cope with the smoke.

Who is at risk?

Different people respond differently to wildfire smoke, and some people are at higher risk of experiencing health effects. Not everyone will experience noticeable effects from wildfire smoke. Even if you are not affected, remember to look out for others around you.

It is especially important for the following groups to reduce their exposure:

- **Pregnant women.**
- **Infants and young children.**
- **The elderly.**
- People with **respiratory conditions** such as asthma or Chronic Obstructive Pulmonary Disease (COPD).
- People with **cardiovascular disease.**
- People involved in **strenuous outdoor work or exercise.**

Long-term health effects.

Most health effects of wildfire smoke will improve as the air quality improves. We don't know much yet about the long-term health effects from seasonal wildfire smoke, but we do recommend that people take care to minimize exposure.

- Remember that reducing exposure is the best way to protect against any health effects from wildfire smoke.
- Infants, unborn children, and those with lung conditions such as asthma and COPD are more likely to experience longer-term health effects.
- Wildfires are becoming more extreme and intense in Yukon and elsewhere. Scientists are working hard to understand how these changes affect health in exposed populations.