

FREQUENTLY ASKED QUESTIONS ABOUT THE EFFECTS OF FOREST FIRE SMOKE ON HEALTH

What does forest fire smoke contain that's harmful?

Smoke is made up of small particles, gases and water vapor. Water vapor makes up the majority of smoke. The remainder includes carbon monoxide, carbon dioxide, nitrogen oxide, irritant volatile organic compounds, air toxics and very small particles.

Is smoke harmful to human health?

Smoke can have harmful consequences. It's a good idea to avoid breathing smoke if you can help it. If you are healthy, you usually are not at a major risk from smoke. But there are people who are at risk, including people with heart or lung diseases, such as congestive heart disease, chronic obstructive pulmonary disease, emphysema or asthma. Children and the elderly also are more susceptible to smoke.

How does smoke harm my health?

One of the biggest dangers of smoke comes from *particulate matter* -- solid particles and liquid droplets found in air. In smoke, these particles often are very tiny, smaller than 2.5 micrometers in diameter. How small is that? Think of this: the diameter of the average human hair is about 30 times bigger.

These particles can build up in your respiratory system, causing a number of health problems, including burning eyes, runny noses and illnesses such as bronchitis. The particles also can aggravate heart and lung diseases, such as congestive heart failure, chronic obstructive pulmonary disease, emphysema and asthma.

What can I do to protect myself?

- If it looks smoky outside, limit physical exertion.
- If you're advised to stay indoors, keep your windows and doors closed. Run your air conditioner, if you have one. Keep the fresh air intake closed and the filter clean.
- Help keep particle levels inside lower by avoiding using anything that burns, such as wood stoves and gas stoves – even candles. And don't smoke. That puts even more pollution in your lungs – and those of the people around you.
- For asthma and chronic lung disease be sure you have your medications available and be vigilant about taking them as prescribed. Call the Yukon HealthLine at 811 or your health care provider (doctor or nurse at your community health centre) if your symptoms worsen.

How do I know if I'm being affected?

You may have a scratchy throat, cough, irritated sinuses, headaches, runny nose and stinging eyes. Children and people with lung diseases such as asthma may find it difficult to breathe as deeply or vigorously as normally, and they may cough or feel short of breath. People with diseases such as asthma or chronic bronchitis may find their symptoms worsening.

Should I leave my home because of smoke?

The tiny particles in smoke do get inside your home. If smoke levels are high for a prolonged period of time, these particles can build up indoors. If you have symptoms indoors (coughing, burning eyes, runny nose, etc.), talk with your health care provider or call the Yukon HealthLine at 811. This is particularly important for people with heart or respiratory diseases, the elderly and children.

Are the effects of smoke permanent?

Healthy adults generally find that their symptoms (runny noses, coughing, etc.) disappear after the smoke is gone.

Do air filters help?

Yes. Indoor air filtration devices with HEPA filters can reduce the levels of particles indoors. Make sure to change your HEPA filter regularly. Don't use an air cleaner that works by generating ozone. That puts more pollution in your home.

Do dust or 'surgical' masks help?

Paper "comfort" or "nuisance" masks are designed to trap large dust particles -- not the tiny particles found in smoke. These masks generally will not protect your lungs from forest fire smoke.

How long is the smoke going to last?

That depends on a number of factors, including the size of the burn, number of fires in the area, fire behavior, weather and topography. Smoke can travel long distances, so fires in other areas can affect smoke levels in your area.

I'm concerned about what the smoke is doing to my animals. What can I do?

The same particles that cause problems for people may cause some problems for animals. Don't force your animals to run or work in smoky conditions. Contact your veterinarian for more information.

Can Territorial firefighters do something about the smoke during a wildfire?

Firefighters first priorities in fighting a wildfire are, by necessity, protecting lives, protecting homes and containing the wildfire. Sometimes the conditions that are good for keeping the air clear of smoke can be bad for containing fires. A windy day, for example, helps smoke disperse. But it can help a fire spread.

Firefighters do try to manage smoke when possible. As they develop their strategies for

fighting a fire, firefighters consider fire behavior and weather forecasts, topography and proximity to communities – all factors than can affect smoke.

Where do I stay if my community gets evacuated?

If your community is evacuated due to forest fire danger, Yukon Health and Social Services, Emergency Social Services can help evacuees obtain food and shelter in the host community.

I have additional questions regarding the health effects of forest fire smoke, who can I call?

- Yukon HealthLine at 811
- Your Health Care Provider (doctor or Community Health Centre)

This Questions and Answers document was reviewed by the Yukon Medical Officer of Health.

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