WILDFIRES AND AIR QUALITY

A changing climate is expected to have many impacts, one of which is an increased risk of wildfires. Smoke generated from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. It can significantly affect air quality, both locally as well as at a distance.

Health Effects of Smoke

Exposure to wildfire smoke can cause a variety of health effects, from mild irritation to more serious impacts for people with existing health conditions. Symptoms may include:

- Eye irritation – itchy, red, watery eyes
- Nose and sinus irritation - itchy, runny or congested nose
- Throat irritation - scratchy or sore throat
- General symptoms such as headaches, fatigue, or dizziness
- New or worsening respiratory symptoms such as coughing, wheezing, or shortness of breath

If you have heart or lung disease, smoke might make your symptoms worse. People with heart disease might experience chest pain, rapid heartbeat, or shortness of breath.

When smoke levels are high enough, even healthy people may notice some of these effects.

People at Higher Risk

While everyone can experience symptoms, people who are most at risk from poor outdoor air quality include:

- Older adults
- Infants and children
- Pregnant people
- People who work or exercise strenuously outdoors
- People who smoke
- Those with pre-existing health conditions, including cancer, diabetes, mental illness, and lung or heart conditions.

Protective Measures

When poor air quality is expected, or you can see or smell/taste smoke in the air, you should consider the following:

- Monitor the Air Quality Health Index (AQHI) and other advisories before planning outdoor activity.
- Limit the amount of time you spend outdoors. Reduce or reschedule strenuous work/exercise.
    - Stay indoors and take measures to maintain indoor air quality. For more details on steps you can take, see Guidance on Clean Air Spaces - Homes.
- Monitor your symptoms closely (especially if you must spend significant time outdoors). Act if you notice symptoms of poor air quality.
- If severe heat occurs along with poor air quality, prioritize keeping cool. Use the air conditioning on the recirculation setting, when possible, to avoid having outside air enter the home.
- Consider wearing a mask: A proper mask can be one of the tools in your toolbox to protect yourself from poor AQ. However, there are a few important things to know about mask use during wildfires.
    - Masks should be certified N95 or equivalent respirator (KN95 or KF94) as those are the most effective to filter out small particles. Homemade masks (such as scarves, bananas) or dust masks that are available for purchase at hardware stores would not be adequate.
    - Fit is important - make sure the mask is well-fitting and properly worn.
    - While a proper mask can help reduce your exposure to very small particles, it doesn't protect against other contaminants included in wildfire smoke such as gases.

When to Seek Medical Attention

- Contact 811 for medical advice if symptoms get worse.
- Seek urgent medical care or call 911 if you experience severe or worsening shortness of breath, chest pain, dizziness, or other concerning symptoms.

Resources

New Brunswick Fire Watch
Government of Canada, New Brunswick Air Quality Health Index
Guidance on Clean Air Spaces – Homes

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