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## Wildfires and Air Quality



Wildfires are a growing concern across the United States, and their impact on health extends well beyond the immediate burn area. During times of wildfires and poor air quality, understanding how wildfire smoke travels, who is most at risk and how to monitor local air quality has become an important part of protecting your health.

In June 2023, smoke from Canadian wildfires caused 75 million people across the United States to experience unhealthy or hazardous air quality, with effects reported as far away as Florida and Central Europe. As of mid-July 2026, smoke from more than 800 active wildfires in Canada, as well as smaller fires burning in Minnesota, has spread across the Midwest and Northeast, exposing an estimated 100 million people to poor air quality.

This article explains how wildfires impact air quality beyond the immediate burn area and outlines protective measures to take when the air quality declines.

### Wildfire Smoke Is a Problem Even When the Fire Isn't Nearby

Wildfires were once considered a regional concern, primarily affecting people living in or near fire-prone areas. However, that is no longer the case. Alaska, the West and the Northwest have traditionally experienced the most days affected by wildfire smoke, but the increasing frequency and severity of wildfires have made this a nationwide issue.

Wildfire smoke can travel such long distances because of its composition. It is a mixture of pollutants, including carbon monoxide, nitrogen oxides, volatile organic compounds (or VOCs) and fine particulate matter (PM2.5). PM2.5 poses a significant health risk even at low exposure levels. As wildfires consume homes, vehicles and other structures in addition to vegetation, the resulting smoke can contain additional toxins beyond PM2.5. Smoke also changes chemically as it travels and interacts with sunlight, meaning its health effects at a distance are not always identical to its effects near the source.

### Who Is at Increased Risk

While poor air quality can affect anyone, certain groups face a higher risk of illness from wildfire smoke, including:

- Children
- Adults age 65 and older
- People who are pregnant
- Individuals with chronic health conditions, such as asthma, chronic obstructive pulmonary disease (or COPD), diabetes and heart disease

Children and teens are at greatest risk from exposure to air pollution because their lungs are still developing and they're more likely to be active outdoors. Kids also breathe more air relative to their body size (pound for pound), so they breathe in more pollution than adults.

Exposure to wildfire smoke, even in the short term, can result in coughing, wheezing, more frequent or severe asthma attacks, irritation of the eyes and throat, and shortness of breath.

## Staying Informed

The Air Quality Index (AQI) provides a straightforward way to monitor local conditions, regardless of how far away a wildfire may be burning. Daily AQI readings are available through [AirNow.gov](https://www.airnow.gov), most weather apps, and state and local agency websites. The AQI provides a number ranging from 0-300+, which provides a benchmark for how safe it is to be outside or breathe air impacted by wildfires or other contaminants.

Resources such as AirNow's [fire and smoke map](#), the National Oceanic and Atmospheric Administration's [fire weather outlook website](#) and other wildfire trackers allow individuals to check conditions before spending time outdoors, particularly during the summer and fall fire seasons.

## Protective Measures When Air Quality Declines

Conditions can change quickly during a wildfire smoke event, so checking the AQI throughout the day helps inform decisions about outdoor activity. In addition to staying informed, the following steps can help reduce exposure to wildfire smoke:

- **Stay indoors and limit air exposure.** Keep windows closed and run the heating, ventilating and air conditioning system with a clean air filter or use a portable air filter if one is available.
- **Use the recirculate setting while driving.** Setting a car's ventilation to recirculate rather than draw in outside air can reduce smoke exposure while traveling or commuting.
- **Wear appropriate protection outdoors.** If you need to spend time outside, a properly fitted N95 mask can reduce exposure to smoke particles. Cloth and surgical masks do not provide this protection. The EPA recommends using a particulate respirator labeled NIOSH, N95 or P100. Two straps above and below your ears will create a good seal. Since masks only protect against particles, experts advise staying indoors on days with poor air quality.
- **Protect pets.** Smoke can also irritate your pet's eyes and respiratory tract. Animals with heart or lung disease and older pets are especially at risk from smoke and should be watched closely.
- **Move exercise indoors.** Replace outdoor workouts with a treadmill or other indoor activity when air quality is poor. If exercising outdoors is unavoidable, choose an area away from traffic.
- **Rinse off after time outdoors.** Showering after spending time outside can help remove particles from skin and hair.
- **Monitor for symptoms.** New or worsening wheezing or shortness of breath should be reported to a doctor.

In general, it's important to pay attention to local and state emergency alerts for information and instructions.

## Conclusion

Wildfire smoke is no longer a concern limited to the areas where fires burn. As wildfires grow more frequent and intense, smoke and PM2.5 can travel hundreds of miles, affecting air quality and health in regions once considered unaffected. Awareness and preparedness remain the most effective tools for protecting yourself and your family, regardless of where the smoke originates.

Contact your doctor if you have questions or concerns about wildfire smoke.