

WILDFIRE SMOKE FACT SHEET

At-Risk Groups of People



Wildfire smoke is a mixture of many different air pollutants. Of these, fine particulate matter, also called particle pollution or PM_{2.5}, is the biggest threat to your health, especially if you are in an at-risk group. This fact sheet tells you **when to be concerned about wildfire smoke, who is at risk and why**, and **how to protect your health** from smoke.

When should I be concerned? Even if you only breathe smoky air for one day it can affect your health. Breathing smoky air for several days can increase risk to your health. That's why it's important to take actions to reduce your exposure to wildfire smoke, especially if it is smoky for more than a day.

Who is at risk? Most healthy adults and children recover quickly from smoke exposure and will not suffer from long-lasting health effects. However, if you are in any of the groups below, your risk of both immediate and long-lasting health effects is higher.

People with chronic diseases

Asthma and other lung diseases

Why: Smoke exposure can trigger severe breathing responses in people with lung diseases.

Effects: Trouble breathing (e.g., coughing, wheezing, and chest tightness), and worsening of chronic lung diseases, such as asthma and COPD, that require a trip to the emergency department or a hospital stay.

Cardiovascular disease

Why: Smoke exposure can trigger severe cardiovascular events in people with underlying cardiovascular diseases and related conditions (e.g., diabetes or obesity).

Effects: May include heart attacks and stroke that require a trip to the emergency department or a hospital stay, and can be fatal.

Lifestages and populations

Children

Why: Children up to 18 years of age are at greater risk of smoke-related health effects, because their lungs are still growing. They are more likely to be exposed to smoke because they spend more time outdoors, engage in more vigorous activity, and inhale more air per pound of body weight compared to adults.

Effects: May include coughing, wheezing, trouble breathing, chest tightness, and decreased lung function in all children. Children with asthma may have worsened asthma symptoms or asthma attacks.

Older adults

Why: Adults ages 65 and older are at greater risk because they are more likely to already have chronic lung and heart disease. In addition, the body's ability to respond to health challenges generally declines with age.

Effects: May include cardiovascular (e.g., heart attacks or stroke) and respiratory events (e.g., asthma attacks or COPD events) that require a trip to the emergency department or a hospital stay, and can be fatal.

Pregnant people

Why: Changes in the body that happen with pregnancy (such as increased breathing rates) may increase sensitivity to smoke exposure. During certain periods of pregnancy, the fetus may be more sensitive to smoke exposure.

Effects: Some evidence suggests that smoke exposure can lead to gestational diabetes and high blood pressure during pregnancy, as well as low birth weight and preterm birth.

People with higher exposure may experience worsening of underlying health conditions. This could lead to increased risk of respiratory- or cardiovascular-related trips to the emergency department or hospital stays, and to death. These groups include:

People from some ethnic and racial minority groups

Why: Ethnic and racial minority groups can be exposed to wildfire smoke due to economic, social, environmental, and other factors that may limit their ability to reduce their exposure to wildfire smoke like using air cleaners or leaving an area.

People with lower incomes

Why: People with fewer financial resources often have less access to health care, which can

lead to untreated or inadequately treated underlying health conditions (e.g., asthma, diabetes). They also may have less access to measures to reduce wildfire smoke exposure (e.g., ability to work from home, clean air purifiers).

Outdoor workers

Why: Outdoor workers can be exposed to high concentrations of smoke for extended periods of time.

What actions can you take to protect yourself?

- Stay informed. Check for local [Air Quality Index](#) (AQI) reports and updates from air quality or fire officials.
- Work with your healthcare provider to make a plan for protecting your health during a smoke event.
- Stay indoors or limit your time outdoors when there is smoke in the air. If air conditioning is not available and it is hot indoors, seek a place with air conditioning, like a shopping mall or library.
- Keep indoor air as clean as possible. Check with a heating and air technician to learn the most efficient filters that can be used in your home’s heating, ventilation and air conditioning (HVAC) system. Use a high-efficiency filter (rated MERV 13 or higher) if your system can safely use one. You can also buy or make a portable air cleaner. Creating a clean room at home will also provide a cleaner indoor air environment.
- Open windows when air quality is better.
- Keep a supply of food and medicine so you can stay inside for several days if smoke levels are high.
- Have a supply of N95 respirators on hand for going outdoors and know how to wear one correctly.

Check the Air Quality Index (AQI) at the Fire and Smoke Map <https://fire.airnow.gov/> or in the AirNow app.

For more information on how to reduce exposures to wildfire smoke visit the Wildfire Guide factsheets page: <https://www.airnow.gov/wildfire-guide-factsheets/>

Indoor Air Filtration factsheet: <https://www.airnow.gov/publications/wildfire-guide-factsheets/wildfire-smoke-indoor-air-filtration-factsheet/>

How to Create a Clean Room at Home factsheet: <https://www.airnow.gov/publications/wildfire-guide-factsheets/how-to-create-a-clean-room-at-home/>

Protect Your Lungs from Wildfire Smoke and Ash factsheet: <https://www.airnow.gov/publications/wildfire-guide-factsheets/protect-your-lungs-from-wildfire-smoke/>



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