

Frequently Asked Questions: Wildfire and Smoke Health Concerns

1. What is the health threat from fires and smoke?

Smoke from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. Smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases.

2. How can I tell if the smoke is affecting my family or me?

Smoke can cause coughing, scratchy throat, irritated sinuses, shortness of breath, chest pain, headaches, stinging eyes, and runny nose.

- If you have heart or lung disease, smoke might make your symptoms worse. People who have heart disease might experience chest pain, rapid heartbeat, shortness of breath, and fatigue.
- Smoke may worsen symptoms for people who have pre-existing respiratory conditions, such as respiratory allergies, asthma, and chronic obstructive pulmonary disease (COPD), in the following ways:
 - Inability to breathe normally
 - Cough with or without mucus
 - Chest discomfort
 - Wheezing and shortness of breath

When smoke levels are high enough, even healthy people may experience some of these symptoms.

3. I have a head cold; will I be affected more?

Most persons who are exposed to thick smoke will not have health problems. The level, extent, and duration of exposure, age, individual susceptibility and other factors play a significant role in determining whether or not someone will experience smoke-related problems. If you are experiencing serious medical problems for any reason, seek medical treatment immediately.

4. How can I protect myself and my family from the harmful effects of smoke?

The best thing to do is to limit your exposure to the smoke. Specific strategies to decrease exposure to smoke include staying indoors whenever possible, using air conditioners, keeping windows and doors shut, using mechanical or non-ozone emitting electronic air cleaners, keeping windows closed while driving in a vehicle, reducing physical activity levels, and minimizing other sources of air pollution (e.g., smoking, wood burning stove use, burning candles, and vacuuming).

5. Will I suffocate in my house?

No. The most common call for evacuation during a wildfire is due to the direct threat of the fire instead of smoke. Leaving the area of thick smoke may be a good protective measure for members of sensitive groups, but it is often difficult to predict the duration, intensity, and direction of smoke, making this an unattractive option to many people. If there is a **cleaner air and cooling center** in the community, you can go there to reduce your exposure to smoke. These may be located in large commercial buildings, educational facilities, shopping malls, or anyplace with effective air conditioning and particle filtration.

6. Will facemasks or dust masks protect me from the smoke?

In order for a mask to provide protection during a smoke event, it must be able to filter very small particles (around 0.3 to 0.1 microns), and it must fit, providing an airtight seal around the wearer's face.

Dust masks are not enough. Paper "comfort" or "dust" masks commonly found at hardware stores are designed to trap large particles, such as sawdust. These masks will not protect your lungs from smoke. It is best to stay indoors and limit your exposure to the smoke.

7. What about respirator masks, will they help?

Yes. If you must be outside, properly fitted NIOSH-approved N95 or KN95 respirator masks can effectively reduce your exposure to smoke. These masks are designed to filter out the very fine particles (such as 0.3 microns) common in wildfire smoke.

To provide optimal protection, the mask must have an airtight seal around your face (note that it is impossible to get a good seal on individuals with beards). While respirators can increase resistance to airflow and make breathing slightly more difficult, they are highly recommended over paper "comfort" or "dust" masks, which offer little

to no protection against smoke. Ensure you only use respirator masks rated at least N95, R95, or P95.

8. Will a wet towel or bandana provide any help?

Wet towels or bandanas have the same shortcomings as paper dust masks. We do not recommend that they be used.

9. What should I do if I must drive to work?

Individuals can reduce the amount of particulate in their vehicles by keeping the windows closed. The car's ventilation systems typically remove a portion of the particulate coming in from outside. For best results, most cars have the ability to recirculate the inside air, which will help keep the particulate levels lower.

10. Our community has an outdoor game scheduled for this evening, should we cancel it?

All persons in areas affected by wildfire smoke are advised by public health officials and local emergency management to actively monitor local air quality conditions. You should check your local Air Quality Index (AQI) using resources like **AirNow.gov** or the **Fire and Smoke Map**. When smoke levels are high, limit all outdoor activity and stay indoors whenever possible to minimize exposure. View our Activity Guidelines for Wildfire Smoke Events for more information.

11. Do air-purifying machines help with indoor air?

Air cleaners can be effective at reducing indoor particulate levels, provided the specific cleaner is adequately matched to the indoor environment.

- **HEPA Filters:** Portable high-efficiency HEPA air cleaners can supplement the work of your HVAC system by removing fine particulates. Filters with activated charcoal will also help absorb gases in the smoke.
- **HVAC Upgrades & DIY Options:** Upgrading your central HVAC filter to a MERV 13 rating or higher is highly recommended. For a cost-effective alternative to expensive HEPA purifiers, you can create a DIY portable air cleaner by firmly attaching a high-efficiency furnace filter (MERV 13 or greater) to a standard box fan.

Do not use ozone generators, personal air purifiers, or electrostatic precipitators and ionizers that produce ozone. Ozone is a respiratory irritant that can aggravate asthma and other lung diseases.

Proper size, installation, and maintenance are critical. The package should indicate the unit's airflow rate and its Clean Air Delivery Rate (CADR). Choose a unit with the highest CADR number suitable for your room size. Humidifiers are not technically air cleaners and will not significantly reduce the amount of particulate in the air.

12. What should I do about closing up my house when it's so hot in there?

If you do not have an air conditioner and if it is too warm to stay inside with the windows closed, seek shelter elsewhere. For instance, go to a designated cleaner air and cooling center, a local library, or a shopping mall.

13. If I have respiratory problems and can't reach my doctor, where should I go?

If you have a medical emergency, you should call 911 or go the hospital emergency room immediately.

14. What do I bring if I'm told to evacuate my home?

If asked or instructed to evacuate your home make sure to bring your important family documents (birth certificates, wills, insurance policies, etc.) and your family disaster supply kit. Your disaster supply kit should contain enough food, water and supplies to sustain your family for 5-7 days. Don't forget any medications or special items such as a first aid kit.

15. I am pregnant, should I take additional precautions?

Yes. The EPA explicitly classifies pregnant people as an at-risk group during smoke events. Recent studies demonstrate a significant association between wildfire smoke exposure during pregnancy and adverse birth outcomes, including low birth weight. Wildfire smoke contains many of the same harmful compounds as cigarette smoke.

Therefore, it is highly prudent for pregnant individuals to limit prolonged or heavy exertion, limit time spent outdoors, and avoid physical exertion. If you are pregnant, call your doctor immediately if you experience shortness of breath, chest pain, rapid heartbeat, or other concerning symptoms.

Helpful Resources

For more up-to-date information on air quality, health guidance, and active wildfires, please visit the following resources:

National Resources

- AirNow Fire and Smoke Map: fire.airnow.gov
- EPA Smoke-Ready Toolbox for Wildfires: epa.gov/smoke-ready-toolbox-wildfires
- InciWeb (Incident Information System): inciweb.wildfire.gov
- Ready.gov Wildfire Preparedness: ready.gov/wildfires

Idaho-Specific Resources

- Idaho Smoke Information Blog: idsmoke.blogspot.com
- Idaho DEQ Air Quality Forecasts: deq.idaho.gov/air-quality
- Idaho Department of Health and Welfare (DHW): healthandwelfare.idaho.gov
- South Central Public Health District: phd5.idaho.gov