Protect your health from wildfire smoke

Utah Department of Health & Human Services

Learn how wildfire smoke can affect your health and take action to protect yourself

How can wildfire smoke affect my health?

Wildfire smoke is mixture of hazardous gases and fine particles that can harm your health. Exposure to smoke can cause the following:

- Coughing
- Trouble breathing
- Wheezing
- Asthma attacks
- Itchy, watery eyes
- Scratchy throat
- Runny nose
- Irritated sinuses
- Headaches
- Tiredness
- Chest pain
- Fast heartbeat

Who is most likely to have health effects from wildfire smoke exposure?

Smoke may worsen symptoms for people who have pre-existing health conditions and those who are particularly sensitive to air pollution. Sensitive groups include:

- Persons with asthma or other chronic respiratory diseases
- Persons with heart disease
- Persons ≥ 65 years of age
- Infants and children
- Pregnant woman
- Smokers, especially those who have smoked for several years

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

Limit your exposure to smoke:

- Stay indoors whenever possible with the doors and windows closed.
- Reduce other sources of indoor air pollution such as smoke from tobacco, wood-burning stoves, and burning candles.
- Use a portable air cleaner to reduce indoor air pollution.
- Avoid vacuuming, which can stir up dust.
- When driving in a vehicle, keep windows closed with air conditioning set to recirculate.
- Drink plenty of water to help reduce symptoms of scratchy throat and coughing.

Leaving the area of thick smoke may be best for those with health conditions that put them at higher risk for illness from wildfire smoke.

Utah state capitol building surrounded by wildfire smoke. Photo from KSL.com

Do portable air purifiers help remove smoke particles inside buildings?

Portable air cleaners with high efficiency particle air (HEPA) filters can reduce indoor particle levels from wildfire smoke.
For more information on how to choose a portable air cleaner visit cehn.org/download/how-to-choose-a-portable-air-cleaner/.

Do-it-yourself (DIY) air cleaners, made with a box fan and MERV 13 filter, are a cost-effective method to reduce smoke inside your home. Use a thicker filter (4" rather than 1") and keep extra filters on hand and replace when dirty.

DIY air cleaner

- 20" x 20" box fan
- 20" x 20" MERV 13 filter
- Clamps or duct tape

DIY box fan air filters are a cost-effective way to reduce wildfire smoke particle pollution in your home.

How often should I change my HVAC filters when there are wildfires?

Heating, ventilation, and air conditioning (HVAC) filters play an important role in trapping and removing airborne particles, including smoke and ash from forest fires, from indoor air. During wildfire events it may be necessary to change the filter **every 2 to 4 weeks** instead of the manufacturer's recommended change time. If the filter becomes visibly dirty it should also be replaced.

Will a face mask protect me from wildfire smoke?

Respirator masks worn correctly may provide some protection by filtering out fine particles in the smoke. Masks do not help with hazardous gases in the smoke.

Use a respirator only after first trying other effective methods to avoid smoke. That includes staying indoors and reducing activity.

Use an N95 mask certified by the National Institute of Occupational Safety and Health (NIOSH).

What face mask should I get?

N95 respirators are the cheapest and most available mask to help protect your lungs from wildfire smoke. They are available at hardware stores and pharmacies. Make sure the mask is:

- Certified by the National Institute of Occupational Safety and Health (NIOSH).
- Not a one-strap paper dust mask or surgical mask. It should have 2 straps that go around your head.
- A size that fits over your nose and under your chin. It should seal tightly to your face. If the mask does not fit properly, it may not provide any protection. Masks with a relief valve will make breathing easier.

If you must be outside, use a certified N95 masks with 2 straps that go above and bellow your ears.

Additional resources

Scan the QR codes below or click the links for additional ways to protect yourself from wildfire smoke from inside your home.

How to choose a portable air purifier

How to build a DIY box fan filter

Contact us

(801) 538-6191

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Will a wet towel or bandana provide any help?

A wet towel or bandana may stop large particles, but not the fine, small ones that can get down into the lungs. They will likely provide little protection.

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