

Wildfires Disaster Guidance: Tips for Staying Healthy during Wildfires

Over the years fierce winds in Southern and Northern California have helped fuel disastrous wildfires. The Camp fire in 2018 has been the most deadly in California history. Other states including Utah, Montana and Arizona have also been challenged with wildfires near populated areas. Wildfire smoke can irritate the eyes, nose, throat, and lungs. It can cause coughing wheezing or difficulty in breathing.



Inhaling smoke can be especially dangerous to those with lung disease (such as asthma, COPD/emphysema, and pulmonary fibrosis), heart disease, pregnant women, the elderly and children. These high-risk populations need to take special care and consider consulting with their healthcare providers regarding specific precautions. Inhaling smoke is not good for anyone. It can cause inflammation (swelling) of the airways and lungs, and can even make you more vulnerable to lung infections, such as COVID-19.



This fact sheet provides you with actions you can take to avoid adverse health effects from exposure to the smoke and ash from wildfires worldwide.

Here are 10 basic steps you can do to help stay safe, avoid smoke exposure, and protect your lungs from wildfire smoke:

1. **Stay indoors as much as possible** with windows and doors closed.
2. **Reduce strenuous physical activity.**
3. **Reduce other sources of indoor air pollution** such as smoking cigarettes, using a wood-burning stove, or frying meat. Do not vacuum anywhere in the house.
4. **Use central air conditioner or heater to filter the air:** A home's heater or air conditioner set to the fan mode may be able to filter out some of the particles by "re-circulating" the indoor air through the filter.
5. **Use air purifiers with HEPA filters.** Try to get an air purifier that has a HEPA (PM_{2.5}) filter. Note: do not use air cleaner devices that produce ozone such as "super oxygenators".
6. **When traveling in a vehicle,** keep windows closed, run the air conditioner, and set air to re-circulate to reduce smoke.



7. If you do have to go outside, wear a disposable respirator mask that is rated as **N95 or higher** to help reduce inhalation of particulates if properly fitted.

National Institute for Occupational Safety and Health (NIOSH) certified N95 masks filter at least 95% of airborne particles at the particle size of 0.3 microns (a size that can get into your lungs). A surgical or simple dust mask **will not** protect against particulate exposure. **None** of these masks protect against hazardous gas inhalation. Simple



cloth barriers, such as bandanas, do not filter out small airborne particles.

The following video demonstrates how to properly put on an N95 mask: https://m.youtube.com/watch?v=od_RaKdquek (from the Centers for Disease Control and Prevention).

1. **Consider evacuation** to areas with better air quality (a lower air quality index) especially if you have lung disease (such as with asthma, COPD, emphysema, cystic fibrosis and pulmonary fibrosis) or other high risk condition.
2. **Create a clean room in your home.** Use an interior room with fewer doors and windows and run an air conditioner and room air cleaner if available.
3. **If you have lung disease such as asthma or COPD, be sure** you are taking your maintenance (“daily controller”) medications. Talk to your healthcare provider about whether you should take other medications or higher doses if you are having symptoms or cannot avoid some exposure.

How can I get current information regarding the air quality in my area?

There are several on-line resources that you can use to get information about air quality in your area.

Up to date air quality information may be found at <https://airnow.gov>.

The South Coast Air Quality Management District lists the following areas of direct smoke impacts: <http://www.aqmd.gov/docs/default-source/air-quality/advisories/advisory1.pdf>.

This fact sheet was adapted from Fire Dangers, Air Quality and Safety for Pulmonary Clinicians and Their Patients from the California Thoracic Society

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Resources

American Thoracic Society

- <https://thoracic.org/patients>

AirNow

- <https://www.airnow.gov/wildfire-potential/>

Centers for Disease Control and Prevention

- <https://www.cdc.gov/disasters/wildfires/smoke.html>

California Department of Public Health

- <https://www.cdph.ca.gov/Programs/EPO/Pages/Wildfire%20Pages/Wildfires--.aspx>

South Coast Air Quality Management District

- <http://www.aqmd.gov/home/air-quality/air-alerts>

California Wildfires Statewide Recovery Resources

- <http://wildfirerecovery.org/general-info/>

California Environmental Protection Agency

- <https://calepa.ca.gov/disaster/fire/>

Environmental Protection Agency (EPA)

- <https://www.epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home>

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