

Fact Sheet: Protecting Oneself from Wildfire Smoke

Wildfire Smoke

Wildfire smoke contains water vapor, fine particles, microbes and many different chemicals, all of which can lead to negative health impacts. Smoke inhalation leads to pollutants being able to enter the lungs.



Image: Santiago Canyon fire

At Risk Groups

Most people are able to recover quickly from smoke exposure, without long term health impacts. Some groups are at a higher risk level for negative health impacts.

- Adults Over 65
- Pregnant People
- People with Lung Conditions
- People with Heart Conditions
- People with Social Vulnerabilities

Dangers of Exposure

Short-term Symptoms

- Burning Eyes
- Runny Nose
- Chest Pain
- Fatigue
- Coughing
- Wheezing
- Difficulty Breathing
- Rapid Heartbeat

Long-term Symptoms

- Reduced Lung Function
- Chronic Bronchitis
- Worsening of Asthma
- Heart Failure

Reducing Smoke Exposure

Monitor Air Quality: The Air Quality Index (AQI) reports information air pollutants, including particulate matter (PM2.5 or PM10) and ozone. Monitoring the AQI is a good method for knowing when there may be harmful levels of smoke in the air. Visit www.airnow.gov or www2.purpleair.com to view the current air quality in your area.

Stay Indoors: Only when indoor air quality is better than outdoor air quality and the risk of overheating is avoidable.

- Pets should also be kept indoors when possible, as they may experience similar side effects from smoke exposure.

Manage Indoor Air Quality: Controlling both the rate at which smoke enters and how quickly smoke is removed from indoor air is important.

- Keep windows and doors closed.
- Close fireplace dampers.
- Upgrade to higher efficiency filters (MERV 13 or higher).
- Operate central fan on “circulate”.
- Do not smoke or burn anything indoors.
- Invest in air purifier or create one by attaching a MERV 13 furnace filter to a box fan.

Consider Temporary Re-Location: If unable to access an area with clean and cool air, consider relocating temporarily.

Have an Evacuation Plan: Wildfire conditions can change rapidly. Be ready to evacuate quickly.

Reduce Physical Activity in Smoke: Physical exertion leads to more pollution being inhaled.

Use California-Approved Air Cleaners: Portable air cleaners can be used to improve air quality. Due to demand, purchasing one is best done prior to a smoke event.

- Building your own air filter is easy! Using a fan and MERV 13 or higher filter, one can make an air filter to reduce smoke. [View detailed instructions.](#)

Wear a Respirator: Respirators must be certified by the National Institute of Occupational Safety and Health (NIOSH) to filter at least 95% of airborne particles greater than 0.3 microns in size.

- Surgical masks and bandanas are not sufficient to reduce smoke exposure.

After a Wildfire

Change Air Filters: Air filters should be switched frequently, but especially after a smoke event.

Air Out Your Home: When air quality improves, air out your home to reduce indoor air pollutants.

Continue to Wear a Respirator: When cleaning outdoors or there is potential exposure to lingering ash, it is important to continue to protect your lungs.

Exposure in the Workplace

California Regulation §5141.1 (2019) requires employers monitor the AQI and provide protection from poor air quality.

If employers can reasonably anticipate employees may be exposed to wildfire smoke, employers must monitor the AQI to determine if worker protections are needed. When the current AQI is *150 or above*, respirators must be provided for employee to use voluntarily. This regulation covers all workers, not in enclosed buildings, structures, or vehicles with filtered air, regardless of immigration status.

References

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