



Frequently Asked Questions Regarding Public Health and Wildfire Smoke

As California wildfire season continues, people in Calaveras County are asking about air quality.

Is wildfire smoke a threat to my health?

Smoke from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. It can affect your eyes, throat and lungs, and worsen heart and lung diseases. How much and how long you are exposed to the smoke, your age, or preexisting conditions play a role in determining whether or not you will experience smoke-related health problems. If you are having serious medical problems for any reason, seek medical treatment immediately.

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 can experience chest pain, a fast heart rate, shortness of breath and tiredness.
- Smoke can worsen symptoms for people who have lung conditions, such as respiratory allergies, asthma, and chronic obstructive pulmonary disease (COPD), in the following ways:
 - Cannot breathe normally
 - Cough with or without mucus
 - Chest discomfort
 - Wheezing and shortness of breath
- Persons who have asthma, emphysema, or other respiratory diseases should use their maintenance puffers/inhalers as directed and carry their rescue inhaler when leaving their home.
- When smoke levels are high, even healthy people may experience some of these symptoms.

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. Ways to limit exposure to smoke include: staying indoors whenever possible, using air conditioners, using mechanical air cleaners, keeping windows closed while driving in a vehicle, and minimizing other sources of smoke such as smoking tobacco, using wood burning stoves, burning candles or incense and vacuuming. It is also important to stay hydrated by drinking plenty of water. Avoid caffeinated and sugary drinks.

What should I do if I must drive to work?

Individuals can reduce the amount of smoke particles in their vehicles by keeping the windows closed and using the air conditioner. The car's ventilation systems typically remove a portion of the particulate coming in from outside. For best results, use the re-circulate air feature found in most cars, which will help keep the pollution levels lower.

Will a wet towel or bandana provide any help?

A wet towel or bandana over your nose and mouth may provide some help, but it will be very limited. Since wet towels or bandanas may not be sealed to the face, their ability to filter very small particles is unknown. Bandanas and wet towels will likely provide little protection.

Should I wear a dust mask or N95 respirator?

Dust masks and surgical masks do not reduce our exposure to particulate pollution. N95 or N100 masks, called respirators, can lower a persons' intake of smoke particles if they fit properly, which means tightly. Leaky masks do not provide much protection. Properly fitting N95s are a bit hard to breathe through and are not practical for use over many hours or days. It is also important to know that N95 masks and dust masks only filter particles, not toxic gases and vapors that are found in smoke.

N95 respirator masks can make the work of breathing more difficult and can lead to increased breathing rates and heart rates. They can also contribute to heat stress. Because of this, respirator mask use by those with heart and respiratory diseases can be dangerous, and should only be done under a doctor's supervision. Even healthy adults may find it uncomfortable to wear a respirator mask for more than short periods of time.

Most people find it difficult to use the respirator masks correctly for general use. For instance, it is impossible to get a good seal on individuals with facial hair. **As a result, the respirator will provide little if any protection, and may offer the wearer a false sense of protection.** While respirator masks are useful during cleanup of ash, during long-term smoky conditions, the risks are greater than the potential benefits. The best and safest decision you can make is to stay indoors as much as possible. If you must use a respirator mask in a job setting, you must be medically screened and fit tested within the last year prior to use. The state health department has information about N95 masks: <https://goo.gl/m1U6GK>

What is the difference between an N95 respirator and dust mask?

N-95 respirator masks are tested and approved by the National Institute of Occupational Safety and Health (NIOSH) for use in certain work places. The respirator masks are tested to filter particles efficiently and are likely to filter small particles like those found in smoke better than dust masks which have not been tested. If an employer requires an employee to wear a respirator mask, the employee must be fitted and trained to wear a respirator mask and may only use a NIOSH-approved respirator.

Our community has an outdoor game or practice scheduled for today, should we cancel it?

All persons in areas affected by wildfire smoke are advised to limit outdoor activity and stay indoors when air quality reaches the unhealthy level to reduce exposure to the smoke. Contact your local sports association officials for more guidance and monitor the local Air Quality Index: www.purpleair.com/map. You may also call Calaveras County Air Pollution Control District for air quality information at (209)754-6601.

Do air-purifying machines help remove smoke particles inside buildings?

Some air cleaners may help at reducing indoor particle levels, but most are not effective at removing gases and odors. For additional information see the US Environmental Protection Agency document: "Ozone Generators That Are Sold As Air Cleaners" available at: www.epa.gov/iaq/pubs/ozongen.html Humidifiers or de-humidifiers are not air cleaners and will not significantly reduce the amount of particles in the air during a smoke event.

What should I do about closing up my house when it is so hot inside?

If you do not have an air conditioner and if it is too warm to stay inside with the windows closed, visit family members or neighbors with air conditioning. You may also be able to visit an air conditioned location, such as a library, for a few hours.

I work in a building with outside air intakes. Should I close the outside air intakes during a wildfire smoke event?

Every building has a uniquely designed ventilation system where any changes even temporary ones, can have an impact on building occupants and indoor air quality. If your building is strictly an office environment it may be wise to cut back or eliminate outside intake into the building during a wildfire smoke event. However, if the building has labs or special ventilation systems, consult a heating, ventilation and air-conditioning professional who knows your special ventilation needs to determine if altering the airflow presents a greater danger.

Where can I find information about the air quality in Calaveras County?

The Calaveras County Air Pollution Control District has placed air quality sensors throughout the county to provide real time air quality monitoring. Visit www.purpleair.com/map for more information. You may also call Calaveras County Air Pollution Control District for air quality information at (209)754-6601.

Stay connected to social media and news sources. It is important to monitor and comply with government issued warnings to remain as safe as possible.

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 to the hospital emergency room immediately.



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