



Public Health Brief

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Monday, July 16, 2018

Wildfire Smoke

Based on projections, most of Alpine County and the surrounding areas are expected to soon see a significant increase in wildfire smoke from the Ferguson Fire near Yosemite. There are no permanent air quality monitoring stations in Alpine County, so the public will need to make decisions regarding outdoor activities based on the visibility chart which follows.

Due to the anticipated elevated particulate pollution levels, children, the elderly, people with heart or lung problems, or people with current illnesses, are advised to limit time outdoors and avoid strenuous outdoor activities in the impacted areas. If you have any questions please call the Great Basin Air Pollution Control District office in Bishop at 760-872-8211.

Residents and visitors to the Eastern Sierra are experiencing smoke coming through the passes and settling in the valleys, especially in the morning. As the day goes on, increasing smoke is also encountered at higher elevations. Keep in mind that this is a very fluid and ever-changing situation, dependent on the fire, control efforts, and the wind.

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.



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Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120

Alpine County Board of Supervisors, Phone: (530) 694-2281

District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,

District 4: Terry Woodrow, District 5: David Griffith

How to tell if smoke is affecting you

Smoke can cause—

- Coughing
- A scratchy throat
- Irritated sinuses
- Shortness of breath
- Chest pain
- Headaches
- Stinging eyes
- A runny nose
- Asthma exacerbations

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
- 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.

In addition to using the following visual guide, residents are encouraged to protect themselves and to seek medical treatment, if experiencing uncontrolled coughing, wheezing, or choking, or if breathing difficulty does not subside indoors.



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Know whether you are at risk

If you have heart or lung disease, such as congestive heart failure, angina, COPD, emphysema, or asthma, you are at higher risk of having health problems than healthy people.

Older adults are more likely to be affected by smoke, possibly because they are more likely to have heart or lung diseases than younger people.

Children are more likely to be affected by health threats from smoke because their airways are still developing and because they breathe more air per pound of body weight than adults. Children also are more likely to be active outdoors.

Recommendations for Minimizing Smoke Exposure:

1. Stay indoors with windows and doors closed; run air-conditioner on “recirculate” setting. Minimize the use of swamp coolers. If it becomes too warm indoors, individuals may consider leaving the area to seek alternative shelter.
2. When driving make sure to drive with the windows rolled up and the air conditioner on “recirculate.”
3. Minimize or stop outdoor activities, especially exercise, during smoky conditions.
4. People who must spend time outdoors should drink plenty of fluids.
5. Additionally, pet owners should consider bringing their pets indoors out of the unhealthy air conditions, if possible. This is especially important for older pets.
6. Stay tuned to local radio and TV for emergency announcements about air quality.

To keep up-to-date on the status of California’s wildfires, and smoke impacts, go to:

<http://www.californiasmokeinfo.blogspot.com>

Protect yourself from Wildfire Smoke video: http://www.arb.ca.gov/videos/impacts_of_smoke.htm

NOAA: <https://www.ospo.noaa.gov/Products/land/hms.html>

US Forest Service: <https://tools.airfire.org/websky/v1/run/standard/CANSAC-2km/2018070300/#viewer>

Great Basin Unified Air Pollution Control District Health Advisories: <https://www.gbuapcd.org/cgi-bin/healthAdvisories>



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Recommendations for Outdoor Physical Activity during Smoky Conditions

This guide is intended to help you make decisions on outdoor activities when it's smoky outside.

Group information is listed below.

Length of Outdoor Physical Activity	Good for Groups (1 – 3)	Moderate for Group 1 Individuals	Unhealthy for Group 1 & 2 Individuals	Unhealthy for Group 1 - 3 Individuals	Very Unhealthy for Group 1 - 3 Individuals	Hazardous for Group 1 – 3 Individuals
	Visibility > 10 miles	Visibility 5 - 10 miles	Visibility 3 – 5 miles	Visibility 1.5 – 3 miles	Visibility 1 – 1.5 miles	Visibility < 1 mile
30 Minutes	No Restrictions	Group 1 Individuals should monitor or reduce physical activity.	Groups 1 & 2 should limit time spent outdoors or reduce physical activity.	Groups 1 & 2 should avoid the outdoors and Group 3 should reduce physical activity.		
1 Hour	No Restrictions	Group 1 Individuals should monitor or reduce physical activity.	Groups 1 & 2 should considerably limit time spent outdoors and reduce physical activity.	All Groups should avoid the outdoors and physical activity.	All Groups should avoid the outdoors and physical activity.	All Groups should avoid the outdoors and physical activity.
2 Hours or More	No Restrictions	Group 1 Individuals should limit prolonged physical activity.	Groups 1 & 2 should avoid the outdoors and Group 3 should reduce physical activity.			

WHICH GROUP ARE YOU IN?		
Group 1 Individuals	Group 2 Individuals	Group 3 Individuals
This group includes those with respiratory or heart disease, angina, pulmonary disease, asthma, emphysema or any other disease that may be impacted by any level of smoke.	This group includes those with asthma, or recent respiratory infections, those who experience seasonal allergies, work outside, or in general are more sensitive to the acute effects of smoke.	This group includes those who are more resistant to the short term effects of smoke. Healthy people may also experience adverse effects of smoke depending on duration and exposure.

Graphic created by: Placer County APCD



Points to Consider

- ◆ If you smell smoke, or see smoke around you, consider restricting your outdoor activities.
- ◆ The chance of being affected by smoke increases substantially with strenuous or prolonged activity outdoors.
- ◆ Keep in mind that air quality can change rapidly at different times during the day due to wind shifts. It is important to monitor the smoke throughout the day in your area and make plans for outdoor activities accordingly.



Local visibility can be used to determine air quality in your area! It's a great way for you to decide whether it's safe to go outside when it's smoky.

Not every community has a monitor that measures particle levels in the air. It's up to you to decide whether to change your outdoor plans until smoke

conditions improve. The chart on the front of this card has the visibility information for each level. Facing away from the sun, if you can, focus on a local ridge top, building, or landmark which is approximately 3 to 6 miles away and determine how far you can see. This can help you to visually assess the quality of the air. If you are concerned about poor outdoor air quality, consider waiting for better conditions. Your health and the health of your family should always be first priority.

Dust masks do not protect you from smoke impacts!

Paper "comfort" or "dust" masks – the kinds you can commonly buy at the hardware store – are designed to trap large particles, such as sawdust. These masks generally will not protect your lungs from the fine particles in smoke; in addition they may restrict airflow. Also, wet bandanas tied over the face will not protect you from fine particles and may restrict air flow.

If there is an advisory to stay indoors, take steps to keep indoor air as clean as possible. Keep your windows and doors closed – unless it's extremely hot outside. Run your air conditioner, if you have one, keeping the filter clean, and keeping the fresh air intake closed (recirculation mode) to prevent bringing additional smoke inside.

Note: If you don't have an air conditioner, staying inside with the windows closed may be dangerous in extremely hot weather. In these cases, seek alternative shelter such as going to a mall, the movies, or libraries. Often, when smoky conditions continue over an extended time, your local government may provide cooling centers to go to in order to avoid smoke exposure and heat. Contact your local government for further information.

