

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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PRESS RELEASE

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Wildfire Smoke and Air Quality

With the onset of wildfire activity in California, Alpine, Mono and Inyo counties are experiencing wildfire smoke impacts which are likely to continue this summer and fall. Large wildfires often produce intense smoke that can pose serious health risks. The purpose of this communication is to provide detailed information on smoke pollution, focusing on health concerns related to air quality and approaches you can take to reduce exposure.

Tracking Smoke Conditions

You can tell when there is smoke in the area, but the intensity and concentration changes constantly with wind and weather. Great Basin Unified Air Pollution Control District (GBUAPCD) continually monitors air quality in numerous locations in Mono and Inyo counties and posts air quality data on their website. For current air quality conditions, health advisories and details, including instructions on using visibility to determine air quality, visit https://gbuapcd.org. Smoke levels may change rapidly throughout the day due to wind and weather conditions. You can monitor changes in smoke in your area and make plans accordingly. Many communities now have low cost sensors which may give an indication of smoke patterns in areas without regulatory monitors: https://fire.airnow.gov/. Not every community has an air quality monitor, but you may use your own observations and local visibility to help determine conditions.

Other websites, such as the federal government's AirNow, https://airnow.gov/, provide current air quality information in terms of the NowCast Air Quality Index, a nationally standardized system for pollution reporting.

It can be challenging to forecast the changes in smoke conditions, but the U.S. Forest Service has a helpful site, BlueSky, that provides a 72-hour model that can predict wildfire smoke conditions: https://tools.airfire.org/websky/v2/run/standard/CANSAC-1.33km/current

Health Effects

People react differently to smoke exposure - some people are more sensitive than others. Wildfire smoke is a complex mixture of air pollutants that is unhealthy to breathe and can be especially dangerous for children, the elderly, pregnant women and people with heart or respiratory conditions. Small particles are inhaled deep into the lungs where they may cause inflammation. Particle pollution also often causes local irritation of the eyes and throat.

When there is smoke pollution, some people will experience lung symptoms such as coughing, wheezing and shortness of breath, especially people with asthma, COPD or other lung conditions. Such people may have a significant decrease in lung function and may be more susceptible to pneumonia and other respiratory infections. This kind of pollution probably also increases the chance of heart problems, and people with existing heart disease or risk factors for it are the most likely to be affected. It is believed heart problems occur because pollution-related inflammation in the lungs can trigger effects throughout the body. Some studies, but not all, have shown that smoke exposure increases death rates, again with deaths clustered among vulnerable people with lung and/or heart disease.

Children are considered vulnerable because of immature lungs and because they have more lung area for their body size compared to adults. Hospital admissions for asthma increase when wildfire smoke incidents occur. Pregnant women are also considered vulnerable based on the known risks associated with other types of particulate pollution, such as a higher chance of a low birthweight baby.

Steps to Protect Yourself

If possible, limit your exposure to smoke. Below are some tips to protect your health:

- **Avoid Smoky Periods**. Smoke often changes over the course of a day. Track conditions and plan your activities to avoid the worst periods of air quality.
- **Reduce Activity.** During periods of heavy smoke reducing physical activity lowers the amount of inhaled pollutants and reduces health risks during smoke events.
- **Protect Sensitive Groups**. Children, pregnant women, older adults, and those with chronic illnesses are more vulnerable to smoke exposure. If you or someone in your family have symptoms related to smoke exposure such as difficulty breathing, prolonged coughing, or chest pain contact your health care provider.
- **Keep Indoor Air Clean**. When smoke levels reach potentially unhealthy levels, it is recommended that people try to keep their indoor air quality as clean as possible, with windows and doors closed, swamp coolers off and air conditioners on recirculate, if they have that function. In hot weather, like now, that may feel like being between a rock and a hard place-balancing the possible harm from smoke against that of heat. If you are unable to keep your indoor air clean or it is too hot, consider relocating to an area with cleaner air. More information on indoor air filtration options is available at:
 - EPA Air Cleaner and Filter Information at https://www.epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home
 - California Air Resources Board Tips for choosing indoor air cleaners at https://ww2.arb.ca.gov/news/tips-choosing-indoor-air-cleaner-effective-indoor-smoke-removal-california
 - AirNow Indoor Air Filtration for Wildfire Smoke at https://www.airnow.gov/sites/default/files/2021-07/indoor-air-filtration-factsheet.pdf
- **Do Not Rely on Masks for Protection**. Cloth masks, dust masks or bandanas do not offer protection. An N95 respirator, properly fitted and worn, will offer some protection but an N95 that is loose or that does not fit properly will not decrease exposure. In addition, a properly fitted N95 can be difficult to breathe through and may not be suitable for use over an extended time or for persons with health conditions.