



Smoke, Air Pollution and Our Health

Smoke is made up of a complex mixture of gases and fine particles produced when wood and other organic matter burn.

One of the biggest health threats from smoke comes from fine particles. These microscopic particles can get into your eyes and respiratory system, where they can cause health problems such as burning eyes, runny nose, and illnesses such as bronchitis.

Fine particles also can aggravate chronic heart and lung diseases.

Other pollutants in smoke include: cancer-causing substances, including benzene, formaldehyde and polycyclic organic matter; carbon monoxide, which reduces the blood's ability to supply oxygen to tissues; and nitrogen oxides (NOx), and hydrocarbons, both involved in the formation of ozone, a principal component of smog.

See reverse for tips on how to minimize your exposure to smoke.

The satellite photo below (courtesy of NASA) was taken during the September 2006 Day Fire, and shows the plume of smoke in Santa Barbara County.



Wildfire Smoke — Advisories and Precautions

Smoke from wildfires sometimes impacts the air in our county. When there is smoke nearby that could potentially affect our air, APCD issues a **precautionary statement**. The statement notes that, depending on wind and weather conditions, smoke may enter the area and people may need to minimize their exposure to the smoke.

When smoke is present in our county's air, APCD issues a **smoke advisory** calling on people to avoid outdoor activities if they detect smoke in the area.

Common Sense Rules of Thumb

If you smell smoke, you are breathing some harmful particles. If you see smoke, but do not smell it, it may be high in the air and not directly impacting the air you are breathing.

If you experience symptoms, check with your doctor and use common sense to protect yourself and your family, friends, and pets.

Check www.OurAir.org for updates, and see reverse for more information.

How to Protect your Family from Fires and the Harmful Effects of Smoke

1. Check out the Santa Barbara County Fire Department website, www.sbcfire.com for information on assembling a disaster kit, establishing a “defensible space” directly around your home, and more.
2. Check www.OurAir.org for smoke advisories and updates. But also use common sense. If it smells smoky outside, it's not a good time for you or your children to exercise outdoors.
3. If you are advised to stay indoors, keep indoor air as clean as possible. Keep your windows and doors closed — unless it's extremely hot outside. If you have an air conditioner, run it with the fresh air intake closed and the filter clean. Don't use fireplaces, gas logs, or candles, don't vacuum, and don't smoke.
4. When smoke is heavy for a prolonged period of time, fine particles can build up indoors even though you may not be able to see them. If you have heart or lung disease, are an older adult, or have children, talk with your doctor about whether and when you should leave the area.
5. Be sure to call your doctor if your symptoms worsen. Pay attention to local air quality reports and stay alert to any news coverage or health warnings related to smoke.
6. If you have heart or lung disease, such as congestive heart failure, angina, chronic obstructive pulmonary disease, emphysema or asthma, you may experience health effects earlier and at lower smoke levels 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 also are more susceptible to smoke for several reasons: their respiratory systems are still developing; they breathe more air (and air pollution) per pound of body weight than adults; and they're more likely to be active outdoors.

Links

Santa Barbara County Fire: www.sbcfire.com

National Fire Incident Information: www.inciweb.org

Santa Barbara Mountain Communities:
www.wildlandresidents.org

You Can Learn More...

Visit our website at www.OurAir.org or call us at (805) 961-8800.

See www.epa.gov/woodstoves/ for information on cleaner-burning fireplaces and woodstoves.

Cleaner Fireplace Burning

Be a good neighbor and minimize your smoke. Here are some tips for cleaner fireplace burning.

- Use a gas log if you can.
- Don't burn trash. Burning trash can cause toxic chemicals to go into the air, and into your lungs. Don't burn plastics, chemicals, wrapping paper, magazines, or any coated papers (including newspaper inserts, junk mail, etc.).
- Clean your chimney. A dirty chimney full of creosote is a chimney fire waiting to happen. Schedule regular maintenance by a certified chimney sweep.
- Be a good neighbor and notice your smoke. Burn dry, seasoned wood, and build small hot fires rather than large smoldering ones.
- Save your fireplace or woodstove for special occasions. Fireplace fires are not a very efficient way to produce heat. The safest way to heat your home, and the cleanest for the air, is through a central heating system.

