

Wildfire Smoke: A Guide for Public Health Officials 2019 Update

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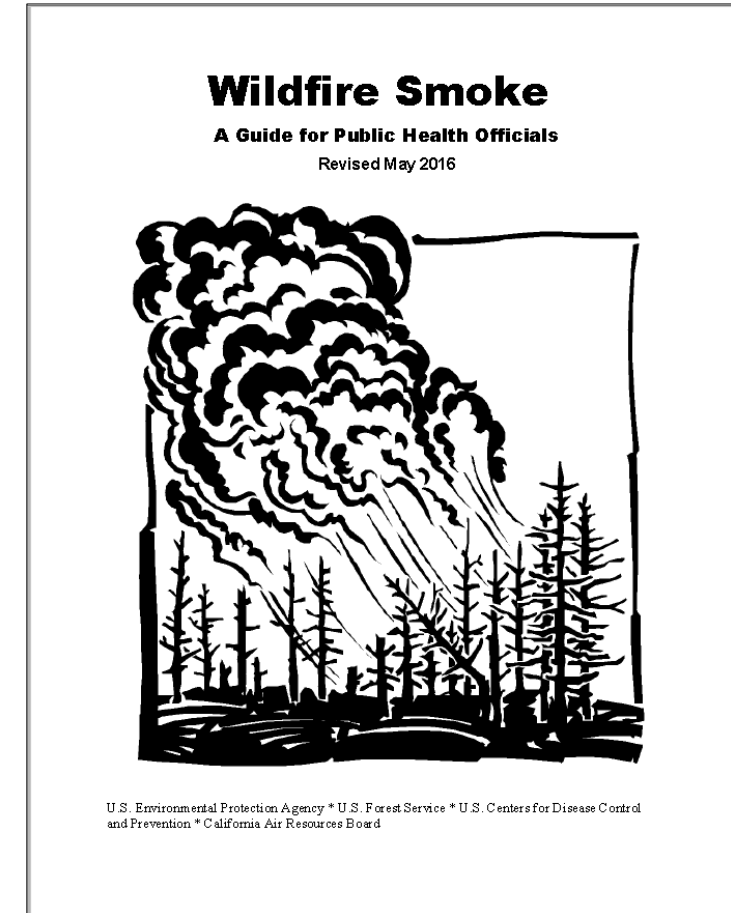
CA Climate Action Team – Public Health Workgroup
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California: Air Resources Board/Department of Public Health/Office of Environmental Health Hazard Assessment

United States: Centers for Disease Control and Prevention/National Institute of Occupational Safety and Health/Environmental Protection Agency/Forest Service

2016 Wildfire Smoke A Guide for Public Health Officials

- Primarily a federal/California document; housed on AirNow website
- Updated air quality and health information
- Evidenced-based exposure reduction measures
- Entirely new section on communicating air quality
 - Uses “Current PM” levels from AirNow
 - Uses satellite information on Fires: Current Conditions page
 - Visual range information updated
- New fact sheets about children’s health
- Information about new interagency Wildland Fire Air Quality Response Program



https://www3.epa.gov/airnow/wildfire_may2016.pdf

2019 Wildfire Smoke: A Guide for Public Health Officials

- Multi-agency document
 - CA ARB, DPH, OEHHA; US CDC, EPA, FS
- Updated look/format
- Expanded sections
 - Preseason planning
 - Indoor air quality
 - Outdoor workers
 - Partnerships
 - New monitoring and air quality estimation technologies
 - After the fire clean-up
- Health effects section
 - Prolonged exposures
 - Heat and smoke
 - Ozone



Wildfire Guide Factsheets

- Prepare for Fire Season
- Reduce Your Smoke Exposure
- Indoor Air Filtration
- Protect Your Lungs from Wildfire Smoke or Ash
- Protecting Children from Wildfire Smoke and Ash
- Protect Yourself from Ash
- Protect Your Pets - New!
- Protect Your Large Animals and Livestock - New!
- Almost ready:
- After the Fire
- Spanish translations - some

WILDFIRE SMOKE FACTSHEET

Protect Your Lungs from Wildfire Smoke or Ash

Wildfire smoke and ash can irritate your eyes, nose, throat, and lungs. They can make you cough or wheeze, and can make it hard to breathe. A respirator is a device that covers your mouth, fits tightly to your face, and can filter out smoke or ash particles. Respirators are not sized for children.

Protecting Your Health
The most effective way to protect yourself during wildfire emergencies is to stay indoors or limit your time outdoors when there is smoke in the air. This is especially important if you have heart or lung disease and are at higher risk for adverse health effects. Reducing physical activity and using HEPA-filtered air cleaners indoors are other ways to reduce your smoke exposure. Consider temporary relocation out of the smoky area if possible. By limiting your

WILDFIRE SMOKE FACTSHEET

Indoor Air Filtration

When wildfire smoke gets inside your home it can make your indoor air unhealthy, but there are steps you can take to protect your health and improve the air quality in your home. Reducing indoor sources of pollution is a major step toward lowering the concentrations of particles indoors. For example, avoid burning candles, incense, and avoid using a gas or wood-burning stove or fireplace. Consider effective options for filtering your home's indoor air to

High-efficiency particulate air (HEPA) filters are the most efficient. You may need to consult with a local heating and air technician or the manufacturer of your central air system to confirm which (or if) high efficiency filters will work with your system. If you can't switch to a more efficient filter, running the system continuously by switching the thermostat

WILDFIRE SMOKE FACTSHEET

Reduce Your Smoke Exposure

When wildfires create smoky conditions, there are things you can do, indoors and out, to reduce your exposure to smoke. Reducing exposure is important for everyone's health — especially for older adults, and people with heart or lung disease.

Reduce smoke exposure indoors

- **Stay inside** with the doors and windows closed. Whether you have a central air conditioning system or a room unit, use high efficiency filters to capture fine particles from smoke. Ask an air conditioning professional what type of high efficiency filter your air conditioner can accept.
- **Seek shelter elsewhere** if you do not have an air conditioner and it is too warm to stay inside with the windows closed.
- **Do not add to indoor air pollution.** Do not burn candles or use gas, propane, wood-burning stoves, fireplaces, or aerosol sprays. Do not fry or broil meat, smoke tobacco products, or vacuum. All of these can increase air pollution indoors.
- **Use a portable air cleaner** to reduce indoor air pollution. Make sure it is sized for the room and that it does not make ozone, which is a harmful air pollutant. Portable air cleaners can be used along with efficient central air systems with efficient filters to maximize the reduction of indoor particles.

• **Create a "clean room"** in your home. Choose a room with few windows and doors. Buy a portable air cleaner you can use in this room. **Never** use an ozone-generating air cleaner.
- **Have a supply of N95 respirators.** They are sold at home improvement stores and online. Use them when you are outside.
- **Long-term smoke events** usually last several days. When the air is better, when quality improves, even temporarily, **leave your home** to reduce indoor air pollution.

Use a portable air cleaner to reduce indoor air pollution.

WILDFIRE SMOKE FACTSHEET

Protecting Children from Wildfire Smoke and Ash

Background

- Children are especially at risk for health effects from exposure to wildfire smoke and ash, mostly because their lungs are still growing.
- Wildfire concerns include the fire itself, the smoke and ash, and the chemicals from materials that have burned, such as furniture.
- Smoke can travel hundreds of miles from the source of a fire. Pay attention to local air quality reports during fire season, even if no fire is nearby.

Health Effects from Wildfire Smoke and Ash

- Children who breathe in wildfire smoke and ash can have chest pain and tightness; trouble breathing; wheezing; coughing; nose, throat, and eye burning; dizziness; or other symptoms.
- Children with asthma, allergies, or chronic health issues may have more trouble breathing when smoke or ash is present.

Preparing for Wildfires

- Pay attention to local air quality reports. Stay alert to smoke-related news coverage and public health advisories.
- Look up your local **Air Quality Index (AQI)** on the **AirNow** (www.airnow.gov) web site.
- If **Enviroflash** is available for your area, sign up for air quality alerts. (<http://www.enviroflash.info/>).

During Wildfires

- Continue to listen to local reports and public health warnings.
- Keep children indoors with the doors and windows closed. Use your "clean room". If you have an air conditioner, run it with the fresh-air intake **closed** to keep outdoor smoke from getting indoors. Use your portable air cleaner as well. Reduce health risks by avoiding strenuous activities.
- Keep the indoor air as clean as possible. Do **not** smoke. Do **not** use gas, propane, or wood-burning stoves, fireplaces, or candles. **Never** use ozone-generating air cleaners. **Never** use natural gas or gasoline-powered generators indoors. Do **not** use spray cans. Do **not** fry or broil meat. Do **not** vacuum. All of these can lead to poor air quality.
- A good time to open windows to air out the house and clean away dust indoors is once air quality improves (check AirNow for updates).
- Use common sense to guide your child's activity. If it looks or smells smoky outside, if local air quality is reported as poor, or if local officials are giving health warnings, wait until air quality improves before your family is active outdoors.

WILDFIRE SMOKE FACTSHEET

Prepare for Fire Season

Living in an area that is regularly affected by smoke or where the wildfire risk is high, take steps to prepare for fire season. Know how to get ready before a wildfire. Know how to protect yourself from exposure during a wildfire. Preparing for fire season is especially important for the health of children, older adults, and people with heart or lung disease.

Prepare Before a Wildfire

- **Check up** so you don't have to go out when it's smoky. Have several days of medications and supplies on hand. Buy groceries that do not need to be refrigerated or cooked, because cooking adds to indoor particle levels.
- **Set up a "clean room"** in your home. Choose a room with as few windows and doors as possible, such as a bedroom. Use a portable air cleaner and avoid indoor sources of pollution.
- **Use a portable air cleaner** before there is a wildfire event. High-efficiency particulate (HEPA) filter air cleaners, and electrostatic precipitators that do not produce ozone, can reduce indoor particle levels.
- **Understand** how you will receive alerts and warnings, including air quality reports and public service announcements, from local officials.

- **If you have heart or lung disease**, check with your doctor about what you should do during smoke events.
- **If you have asthma or another lung disease**, update your respiratory management plan.
- **Have a supply of N95 masks** and learn how to use them. They are sold at many home improvement stores and online.
- **Organize** your important items ahead of time and know where to go in case you have to evacuate.