

# Wildfire Smoke

## Health Impacts of Exposure to Wildfire Smoke

Exposure to wildfire smoke can be dangerous, even for healthy individuals. Wildfire smoke contains harmful chemicals and fine particles that can be inhaled deep into the lungs. Symptoms of wildfire smoke exposure include eye irritation or burning, sore throat, headaches, fatigue, coughing, wheezing, shortness of breath, irregular heartbeat, and chest pain. High exposure can lead to hospitalizations and increase the risk of death. Repeated, frequent or prolonged exposure to wildfire smoke can have long-term health consequences.

## Vulnerable Populations

Sensitive groups with increased risk from exposure to wildfire smoke include people who are

- 18 and younger
- Older than 65
- Pregnant
- Outdoor workers
- Experiencing homelessness
- Living in a low-income household
- Experiencing chronic health conditions, including respiratory illness, diabetes, or lung, heart or kidney disease

## Prevention of Wildfire Smoke Exposure

- Limit time outdoors.
- Limit duration and intensity of outdoor physical activity.
- Drink plenty of water.
- Stay inside with cleaner indoor air:
  - Close doors and windows, unless it is too hot to maintain safe temperatures.
  - Avoid smoking tobacco, burning candles or vacuuming.
  - Set your air conditioner to recirculate.
  - Filter indoor air through an HVAC system, a portable high-efficiency particulate (HEPA) air cleaner, or a DIY box fan filter.
- Create a *clean room*
- Seek a place to stay with cleaner air, such as a public space, friend's place or an area without smoke.
- If you must be outside, wear a properly fitted, NIOSH-approved particulate respirator, such as an N95 mask.
- **Particulate respirator masks** are not approved for use by children. Cloth and surgical masks do not protect against breathing the fine particles in wildfire smoke. The best protection for children is to avoid exposure to smoke.

## Air Quality Index (AQI)

The AQI is a tool for reporting how clean or polluted the air is and how it may affect people's health. Agencies monitor and report air quality with sensors placed at multiple locations in Spokane County and across the country.

**Know the air quality conditions in your area.** Pay attention to health alerts. Check local AQI with these resources:

- *Spokane Regional Clean Air Agency*
- AirNow.gov *Airnow.gov* or *AirNow mobile app*
- Washington State Department of Ecology *Washington Air Quality Map* or *AirQualityWA mobile app*

## Public Health Recommendations

**Agencies, organizations and jurisdictions** can support individual, household and community preparedness for wildfire smoke impacts by communicating the risk of wildfire smoke and protection measures *before* wildfire season.

- Identify public or commercial cleaner air spaces with effective particle filtration and air conditioning the public can access each day during wildfire smoke events, such as libraries, museums, shopping malls or sports arenas.
- Prepare to provide overnight protection in clean air shelters during prolonged or severe wildfire smoke events.
- Prepare to communicate air quality conditions during smoke events through partnerships, planning and outreach.

### Key recommendations based on AQI

**51-100, Moderate** Sensitive groups should watch for symptoms.

**101-150, Unhealthy for Sensitive Groups** Sensitive groups should take steps to reduce exposure and spend time in clean air settings at home or in the community. Cancel or relocate children's outdoor athletic events and practices. For extended duration of smoke at 101-150 AQI conditions, consider opening cleaner air shelters for sensitive groups.

**151-200, Unhealthy** Take actions above, as well as the following recommendations. Recommend everyone take steps to reduce exposure. For those who cannot maintain cleaner air in their home, recommend spending time in a cleaner air setting in the community. Consider cancelling outdoor public events and activities. For extended duration of unhealthy conditions, consider opening cleaner air shelters for the entire public.

**201-300, Very Unhealthy** Take actions above, along with the following recommendations. Strongly recommend everyone take steps to reduce exposure. Cancel outdoor events and activities. Distribute NIOSH-approved particulate respirators, such as N95 masks, for outdoor use. For extended duration of AQI over 200, consider recommending sensitive groups relocate to unimpacted area if possible.

**>300, Hazardous** Do all the above. During an extended duration of AQI greater than 300, recommend everyone voluntarily relocate to an unimpacted area, if possible.

**State rules protect workers** from wildfire smoke. [Learn more](#)

## Resources

SRHD [Wildfire Smoke and Air Quality & Wildfire FAQ](#)  
[Spokane Regional Clean Air Agency](#)  
[Airnow.gov](#) [Be Smoke Ready](#)

[Washington Smoke Blog](#)  
Washington State Department of Labor & Industries  
[Wildfire Smoke](#)

### Washington Department of Health

- [Washington Air Quality Guide for Particle Pollution](#)
- [Smoke From Fires FAQ](#)
- [Partner Toolkit](#)
- [Washington Guide for Public Health Actions for Wildfire Smoke](#)
- [Washington Children and Youth Activities Guide for Air Quality](#)
- [Portable Air Cleaners](#)
- [Improving Ventilation and Indoor Air Quality During Wildfire Smoke Events](#)

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#### Sources

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