



Reducing Wildfire Smoke Exposure: A Guide for Patients and Parents

Wildfire Smoke and Asthma

Asthma is a condition that can make breathing difficult, with symptoms such as chest pain, shortness of breath, cough or wheezing. Wildfire smoke contains many toxic particles that can make your child's asthma symptoms worse and can increase the risk of hospitalization. With over 56,000 wildfires recorded in the USA alone last year and a projected 50% increase by the end of the century, it is important for patients and their parents to understand how to minimize wildfire smoke exposure both at school and in their households.

- AQI <50: **Normal**
- AQI 151–200: **Dangerous for children with asthma**
- AQI 201–300: **High risk for anyone with asthma**

Stay in the Loop

- Know your area's air quality (AQI): <https://www.airnow.gov>.
 - Sign up for air quality email notifications: <https://m.enviroflash.info>.
 - Follow wildfire forecasts: <https://fire.airnow.gov>.
- Download the Smoke Sense app (available for Android and Apple phones) for information on current air quality and fires in your area as well as ways to reduce smoke exposure.
- Follow public health announcements closely.



Ways to Reduce Wildfire Smoke Exposure



AIR QUALITY INDEX (AQI)

Reduce outdoor and strenuous activities on days with a poor AQI. Advocate for school officials to check the AQI daily before planning outdoor activities.



NIOSH-APPROVED N95 MASKS

Well-fitted masks can significantly reduce toxic particle exposure. More information can be found on: https://wspehsu.ucsf.edu/wp-content/uploads/2025/02/mask-or-respirator-use-during-pregnancy-and-early-child-years-in-wildfire-smoke-events_2_5_25.pdf.



CLOSE ALL WINDOWS AND DOORS

Advocate for school officials to keep all windows and doors closed on days with a poor AQI and air out the building once air quality improves.



CENTRAL AIR CONDITIONING

Using central air conditioning in “recirculate” mode and replacing air filters regularly can help improve indoor air quality for children with asthma. When outdoor air quality is hazardous and central air conditioning is not available at home, seeking alternative shelter may be considered.



IMPROVE INDOOR AIR QUALITY

Advocate for school officials to use high-efficiency HEPA-certified air purifiers (MERV >13). If you do not have access to a certified air purifier or central A/C at home, a cost-effective and efficient alternative for improving indoor air quality is creating a simple homemade box fan filter. Instructions can be found on: <https://www.epa.gov/emergencies-iaq/diy-air-cleaners#how>



CLEANING

Make sure a HEPA-filtered vacuum is used at your home and in your child’s school.



SMOKE-FREE POLICIES

Advocate for smoke-free school policies to avoid exposure to secondhand smoke.



AVOID THE FOLLOWING

Burning candles, using aerosols, wood-burning stoves, furnaces or fireplaces. Use caution when cooking with smoke or steam, particularly when a person with asthma is nearby.



ASTHMA ACTION PLAN AND MEDICATIONS

Make sure your child’s asthma action plan is up to date and they have an appropriate supply of controller and rescue medications at home and at school. **Follow up regularly with an allergist or asthma specialist.**



BE PREPARED TO EVACUATE

If you live in an area frequently affected by wildfires, have an evacuation plan and make sure your children are prepared for a possible evacuation. Ensure you have a ready-to-go bag stocked with asthma controller and rescue medications, spacer chambers and/or a nebulizer with extra tubing and parts. Include essential documents such as your child’s asthma action plan, a list of medications, insurance cards and contact information for your doctor and local pharmacies.

Know Your Rights

If your child has asthma and is unable to safely travel to or attend school on days with a poor AQI due to wildfire smoke or other pollution, you might be entitled to a special education program under Section 504 of the Rehabilitation Act. Your doctor can help refer your child for evaluation under Section 504. More information can be found on: <https://www.greatschools.org/gk/parenting/iep-504/what-is-section-504>.

If your family does not have a safe place to stay and requires alternate shelter or help during a wildfire, you can contact your local authorities or find more information about assistance and available shelters in your area on: <https://www.disasterassistance.gov>.

Sources

1. <https://www.nifc.gov/fire-information/statistics/wildfires>
2. https://www.health.ny.gov/environmental/outdoors/air/smoke_from_fire.htm
3. <https://aafa.org/asthma/asthma-triggers-causes/air-pollution-smog-asthma>
4. <https://www.airnow.gov/sites/default/files/2021-05/wildfire-smoke-guide-revised-2019-chapters-1-3.pdf>
5. <https://www.greatschools.org/gk/parenting/iep-504/what-is-section-504>
6. <https://www.disasterassistance.gov>
7. <https://healthybuildingscience.com/2019/02/06/air-quality-index>
8. <https://www.epa.gov/emergencies-iaq/diy-air-cleaners#how>
9. https://wspehsu.ucsf.edu/wp-content/uploads/2025/02/mask-or-respirator-use-during-pregnancy-and-early-child-years-in-wildfire-smoke-events_2_5_25.pdf

School-based Asthma Allergy Anaphylaxis Management PROgram™

The AAAAI's [Find an Allergist / Immunologist](#) service is a trusted resource to help you find a specialist close to home.

For more information on asthma, visit www.aaaai.org.

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