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## Children's Health and Wildfires

### *A Resource for Families*

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#### Summary of Key Points

- Children are especially vulnerable to health effects during wildfires due to their developing lungs and other factors.
- Wildfire concerns include the fire itself, the smoke and ash, and the chemicals from materials burned and fire retardants.
- Smoke can travel hundreds of miles from the source of a fire. Pay attention to local air quality reports, even if no fire is nearby ([www.airnow.gov](http://www.airnow.gov)).

#### Health Effects from Wildfires

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- Children who breathe in wildfire smoke can have chest pain and tightness; trouble breathing; wheezing; coughing; nose, throat, and eye burning; dizziness; or other symptoms.
- Children with asthma, allergies, or other chronic health conditions may have more trouble breathing when smoke or ash is present.
- Stress and mental health effects of all disasters, including wildfires, are serious.

#### Preparing for Wildfires

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- Stay alert to smoke-related news coverage and public health advisories.
- Look up your local [Air Quality Index \(AQI\)](#) on the [www.AirNow.gov](http://www.AirNow.gov) web site.
- If available for your area, sign up for air quality alerts: <http://www.enviroflash.info/>.
- Improve the indoor air quality in your home. If you have central air, talk to your HVAC or furnace professional about upgrading to a filter rated "MERV" 13 or higher. Buy a portable air cleaner sized to the room it is intended for and **never** use an ozone-generating air cleaner. More information is available here: [https://www.epa.gov/sites/default/files/2018-07/documents/guide\\_to\\_air\\_cleaners\\_in\\_the\\_home\\_2nd\\_edition.pdf](https://www.epa.gov/sites/default/files/2018-07/documents/guide_to_air_cleaners_in_the_home_2nd_edition.pdf)
- Create a "clean room" in your home. Choose a room with few windows and doors. More information available here: <https://www.epa.gov/indoor-air-quality-iaq/create-clean-room-protect-indoor-air-quality-during-wildfire>
- If your child has chronic health conditions, discuss plans for wildfires with their primary care provider.
- Stock up on food, medicine, masks, and child care supplies before the threat of a wildfire.
- Practice having your child wear small N95 or surgical masks, using what fits your child's face best.
- Evacuation may be necessary. Plan for it and prepare your children (see [HealthChildren.org](http://HealthChildren.org) – [Disasters and Your Family: Be Prepared](#)).

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## During Wildfires

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- Keep children indoors with the doors and windows closed. If you have an air conditioner, run it with the fresh-air intake closed (recirculate mode), if you can, to keep outdoor smoke from getting indoors. Use your portable air cleaner as well.
- Keep the indoor air as clean as possible:
  - Avoid smoking and vaping
  - Avoid using gas, propane, or wood-burning stoves, fireplaces, or candles.
  - Avoid ozone-generating air cleaners.
  - Avoid natural gas or gasoline-powered generators indoors.
  - Avoid using unnecessary chemical products.
  - Avoid frying or broiling meat
  - Avoid vacuuming (unless vacuum has a HEPA filter).All of these lead to poor air quality.
- A period of improved air quality is a good time to open windows to air out the house and clean away dust that has settled indoors.
- If it looks or smells smoky outside or if local air quality reports, health warnings, or the Air Quality Flag Program tell you the air quality is bad, wait until air quality is better before your family is active outdoors.
- Pay attention to announcements on the radio, TV, or online about changing conditions, cancelled events, or evacuation. Indoors, reduce health risks by avoiding strenuous activities.
- N95 or Surgical Masks: Children may be able to get some protection from wildfire smoke from N95 masks or surgical masks, but only if they are fitted tightly to the face. Your child can use a mask safely if they can tell you about any problems they have with the mask. If your child is uncomfortable or says that it is hard to breathe, take it off. Use masks only for short periods where your child must be outdoors (i.e. travel between home and school). For more on mask use, visit:  
[https://www.pehsu.net/Wildfires\\_and\\_Mask\\_Use.html](https://www.pehsu.net/Wildfires_and_Mask_Use.html)

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## When to consider Evacuation

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- If you must travel with children, reduce smoke in your vehicle by closing the car windows and using the air conditioning in recirculate mode.
- Seek shelter elsewhere such as public cleaner air shelters, libraries, or malls if your family does not have an air conditioner, air cleaner, or if it is too warm in your home to stay inside with the windows closed. Do NOT leave children in vehicles unattended.
- Move children to an environment with cleaner air, if possible, when smoke levels are high.

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## After a Wildfire

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- Before children return to an area affected by wildfires, make sure there are: safe drinking water; running electricity; safe road conditions; structurally sound homes; and sewage, ash, and debris have been removed.

- Children should not be at a cleanup site, nor should they do cleanup work. Fires may deposit large amounts of ash and dust contaminated with harmful chemicals such as asbestos, arsenic, and/or lead. Fires can lead to other hazardous conditions such as broken glass and exposed electric wires.
- Adults should avoid tracking contaminated substances and ash back to areas frequented by children (e.g. homes, cars) on clothing or shoes. Remove shoes at the doorway, wash clothing separately, and change out of clothing prior to interacting with children or returning home.
- If your child has contact with any potentially hazardous substances call Poison Control (1-800-222-1222) or your local Pediatric Environmental Health Specialty Unit (<https://www.pehsu.net/findhelp.html>).

## Special Considerations

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- If your child has any difficulty breathing, is excessively sleepy, declines food and water, or there are other health concerns, reduce their exposure to smoke and seek medical help right away.
- If your child has asthma, allergies, or another chronic health condition they are at higher risk from health effects related to wildfire smoke and ash. Follow your asthma action plan and seek medical advice as needed.
- Humidifiers or breathing through a wet washcloth do **not** prevent breathing in smoke. Children may be able to get some protection from wildfire smoke from N95 masks or surgical masks.

## About PEHSU

The Pediatric Environmental Health Specialty Units (PEHSUs) are a source of medical information and guidance on prevention, diagnosis, management, and treatment of environmental conditions that influence reproductive and children's health. PEHSUs work with health care professionals, parents, schools, community groups, as well as federal, state, and local agencies to address reproductive and children's environmental health issues where families live, learn, play, and congregate. For more information on PEHSUs and available resources, please visit: <https://www.pehsu.net/>.

Document Revised (2021) by Laura Anderko, PhD, RN, Mark Anderson, MD, FAAP, Marissa Hauptman, MD, MPH, FAAP, Stephanie Holm, MD, PhD, Catherine Karr, MD, PhD, FAAP, and Mark Miller, MD, MPH. This fact sheet is dedicated in memory of Dr. James M. Seltzer as well as the first responders and others who have been affected by wildfires.

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