



Protecting Kids from Outdoor Air Pollution

Effects of Outdoor Air Pollution

Air pollution can endanger human health and the environment. Studies show that outdoor air pollution may be linked to respiratory effects, heart attacks, asthma attacks, bronchitis, hospital or emergency room visits, lost work and school days, reduced activity days, and in very rare cases, death.

Children are especially vulnerable to the negative health effects of outdoor air pollution. Compared to adults, children spend more active time outdoors and breathe more air per pound of body weight. In addition, children's lungs and immune defenses are still developing, increasing their susceptibility to pollutants.

For more information about ways to protect children from the unhealthy effects of outdoor air pollution, please view the resources below:

- [10 Tips to Protect Yourself from Unhealthy Air](#)
- [Clean Air at School](#)
- [Protecting Kids from Environmental Exposures](#)
- [What You Can Do to Protect Children from Environmental Risks | US EPA](#)
- [Air Quality Index \(AQI\)](#)

Tips for Protecting Children from Outdoor Air Pollution

- Check the local radio, weather reports, newspapers, or airnow.gov for daily air pollution forecasts. The color-coded forecasts provide information on when the air is unhealthy.
- Individuals are encouraged to walk, bike, carpool, and use public transportation to limit contributing to air pollution. However, avoid outdoor physical activity when [pollution levels are high](#) or limit the time children spend playing outdoors and avoid physical activity [near high-traffic areas](#). Even when air quality projections are green, vehicles can produce significant pollution levels up to one-third a mile away.
- Do not burn wood or trash. [Burning firewood](#) and trash are sources of particle pollution (soot) in many parts of the country.
- Reduce energy use indoors. Decreasing energy use helps enhance air quality, control greenhouse gas emissions, promote energy independence, and save money. The U.S. Environmental Protection Agency (EPA) provides [easy tips for conserving energy at home](#).
- Support schools in reducing exposure to school bus emissions. To prevent exhaust levels from rising, schools should not permit school buses to idle outside their buildings. Consider the U.S. EPA's [Clean School Bus Campaign](#) to clean up emissions.
- Use hand-powered or electric lawn care equipment in place of gasoline-powered. Old two-stroke engines like lawnmowers and leaf or snow blowers often have no pollution control devices and can pollute the air even more than cars.
- Prohibit smoking indoors or near home/building entrances and support measures to make all public places [tobacco-free](#).

Teaching Kids About the Air Quality Index (AQI)

Knowledge of [AQI](#) empowers children to seek information on air pollution forecasts. The AQI color-codes help children identify when the air is unhealthy, and avoid outdoor activities when [pollution levels are high](#). Children may also encourage their parents to walk, bike, or carpool to reduce air pollution. Lastly, when children know the impact of smoking and tobacco use on the environment, they may be more inclined to avoid such behaviors.

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.



The Division of Environmental Health Epidemiology (DEHE) at the Pennsylvania Department of Health created this e-newsletter to share environmental health information with the public. Contact dehe@pa.gov with questions, concerns, or feedback on topics you want to learn more about.