

Air quality is a pressing environmental public health issue. Air may become polluted by natural and manmade sources. Natural pollution sources come from wildfires, volcanoes and windblown dust and pollen. Manmade sources are things like power plants, factories, vehicles, emissions from farming and mining operations, and second-hand smoke. Pennsylvania has unique geographical features that can affect air quality. In 1948, a weather event in Donora, PA trapped air pollution in the town causing deaths and sparking the creation of air pollution laws across the nation.

HOW AIR QUALITY AFFECTS HEALTH

Poor air quality is linked with health problems, such as heart disease, asthma and other breathing problems. Air pollution is also associated with reproductive problems and reduced fetal growth and preterm birth. The risk of developing a specific disease from breathing polluted air depends on many factors such as the contaminating substance, the level and potency of the substance and how sensitive to pollution a person is. Children, pregnant women, elderly individuals and people with chronic lung diseases are highly sensitive groups who are vulnerable to air pollution-related health problems and exacerbations.



LEARN MORE ABOUT AIR QUALITY & HEALTH

- Read the [National Ambient Air Quality Standards¹](#) for six outdoor air pollutants set by the Environmental Protection Agency (EPA). The six regulated air pollutants are ozone, particulate matter, carbon monoxide, lead, sulfur dioxide and nitrogen dioxide.
- Explore the [Ambient Air Monitoring Data Reports²](#) for recent air quality data from statewide air monitors.
- Check local air quality on the [AirNow³](#) website.
- Limit outdoor activities and keep windows closed when air quality is poor.
- Avoid using wood stoves or switch to a clean-burning wood stove.
- Discuss air quality with a health care provider.

MONITORING AIR QUALITY IN PENNSYLVANIA

Pennsylvania tracks air quality based on two air pollutants that can adversely affect health and are regulated by the EPA. Data are on the [Enterprise Data Dissemination Informatics Exchange⁴](#) (EDDIE) by county. The data come from the [Bureau of Air Quality⁵](#) within the Department of Environmental Protection.

- Ground-level Ozone (O₃) is called “bad ozone.” It is created by chemical reactions between nitrogen oxides and volatile organic compounds (VOCs) in the presence of sunlight. Major sources of nitrogen oxides and VOCs include emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors and chemical solvents.
- Particulate Matter (PM) is a mixture of very small particles and liquid droplets. Pennsylvania specifically tracks PM_{2.5}, fine particles that have a diameter of 2.5 micrometers or smaller. When inhaled, the particles can enter small areas of the lungs and pass into the bloodstream. These particles are directly emitted from forest fires, power plants, factories and cars.

If you have any questions, contact us at env.health.concern@pa.gov.

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¹ <https://www.epa.gov/criteria-air-pollutants>

² http://www.ahs.dep.pa.gov/air_apps/aadata/

³ <http://www.airnow.gov/>

⁴ <https://www.health.pa.gov/topics/HealthStatistics/EDDIE/Pages/EDDIE.aspx>

⁵ <https://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx>