



## Preparing for Poor Air Quality



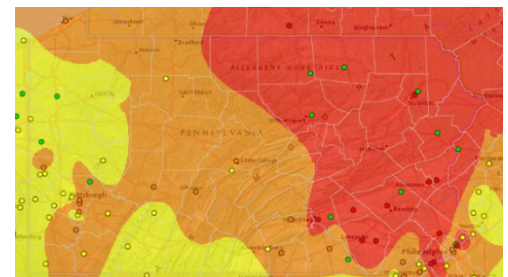
Air is essential to life, and access to clean air is an important environmental public health issue. Natural and manmade sources may pollute air. Natural pollution sources include wildfires, volcanoes, windblown dust, and pollen. Manmade sources include power plants, factories, vehicles, emissions from farming and mining operations, and secondhand smoke. People with asthma, chronic obstructive pulmonary disease (COPD), heart disease, older adults, those who are pregnant, outside workers, and children may be at greater risk of serious health issues due to poor air quality. This document provides information on how to prepare for poor air quality.

## LEARN MORE ABOUT AIR QUALITY & HEALTH

- Read the [National Ambient Air Quality Standards](#) for six outdoor air pollutants set by the U.S. Environmental Protection Agency (EPA): ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide.
- Explore the [Ambient Air Monitoring Data Reports](#) for recent air quality data from statewide air monitors.
- Check local air quality on the [AirNow](#) website or by downloading the [AirNow application on a mobile device](#).
- Discuss ways to reduce the health impacts of poor air quality with a health care provider.

## MONITORING AIR QUALITY IN PENNSYLVANIA

You can monitor the air quality conditions for your area by visiting [AirNow.gov](#) or by using the [AirNow mobile app](#). These resources will give you the Air Quality Index (AQI) for your area. The AQI uses color-coded categories to provide recommendations for outdoor activity for the general population and sensitive populations.



AQI Color	Level of Concern	AQI Values	Air Quality Description
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.



Pennsylvania tracks outdoor air quality based on two air pollutants that the EPA regulates. Pollutant data are displayed on the [Enterprise Data Dissemination Informatics Exchange \(EDDIE\)](#) by county. The Pennsylvania Department of Environmental Protection's Bureau of Air Quality provides the data.

- Ground-level Ozone (O<sub>3</sub>) 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 tracks PM<sub>2.5</sub>, fine particles that have a diameter of 2.5 micrometers or smaller. They are much thinner than human hair. 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.

## BE AWARE OF AIR QUALITY RELATED SYMPTOMS

Poor air quality can irritate your eyes, nose, throat, and lungs. Inhaling polluted air can cause a variety of symptoms. These symptoms can be dangerous and even life threatening for people in high-risk groups such as people with asthma, COPD, or heart disease. Older adults, pregnant people, outdoor workers, and children are also at a higher risk for more severe symptoms.

### Initial Symptoms

Coughing	Chest pain
Wheezing and shortness of breath	Headaches
Stinging eyes	Tiredness
Scratchy throat	Fast heartbeat
Runny nose or irritated sinuses	

### Treatment

- ✓ If you experience symptoms like trouble breathing or dizziness, seek medical attention.
- ✓ If you have a family member or neighbor who is in a high-risk group, check on them.
- ✓ If you have chronic conditions, you can talk to your health care provider about protecting yourself against poor air quality and what to do if you are exposed.

## REDUCE EXPOSURE TO POOR AIR QUALITY

When poor air quality in the red (unhealthy) category or worse or affects your area, everyone is encouraged to follow these steps. People in higher risk groups should consider taking these protective steps at orange level.

- ✓ Avoid strenuous outdoor activities.
- ✓ Keep outdoor activities short.
- ✓ Consider moving physical activities, like outdoor workouts or recess, indoors or rescheduling them.
- ✓ Bring pets indoors.

Sometimes polluted air from outdoors can enter your home. Follow these tips to help keep particle pollution lower indoors:

- ✓ Keep doors and windows closed.
- ✓ Don't smoke or use candles indoors.
- ✓ Avoid using wood stoves or switch to a clean-burning wood stove.



- ✓ Use an air filter in your home if you have one.
- ✓ Clean or replace filters according to manufacturer recommendations.
- ✓ If you don't have your own portable indoor air cleaner and want to make one, the [EPA offers instructions](#).

## ADDITIONAL RESOURCES

- Visit [AirNow](#) to find the latest air quality levels and recommendations for your area.
- Use the [AirNow Fire & Smoke Map](#) to learn about air quality and smoke near you.
- Read reports from the [U.S. Environmental Protection Agency \(EPA\)](#) on air quality status and trends.
- Visit the PA Department of Environmental Protection [Bureau of Air Quality](#) for more air quality information.
- Visit the [American Lung Association](#) for outdoor air quality resources.
- View Pennsylvania air quality and health data on [Enterprise Data Dissemination Informatics Exchange \(EDDIE\)](#).