

# Air Pollution 101

Air pollution remains a significant public health concern in our region. Research indicates that Pittsburgh's annual particle pollution ranks among the worst 12% of urban areas monitored in the U.S., and that Allegheny County is in the top 1% with respect to cancer risk from industrial sources. Our air pollution levels also put us at risk for heart attack, stroke, respiratory disease, low birth weight, and premature birth.

What types of pollutants do we worry about?

## These six pollutants are the "Criteria Air Pollutants"

The Environmental Protection Agency sets national standards for these pollutants because they are widespread, and pose significant harm to human health and the environment.

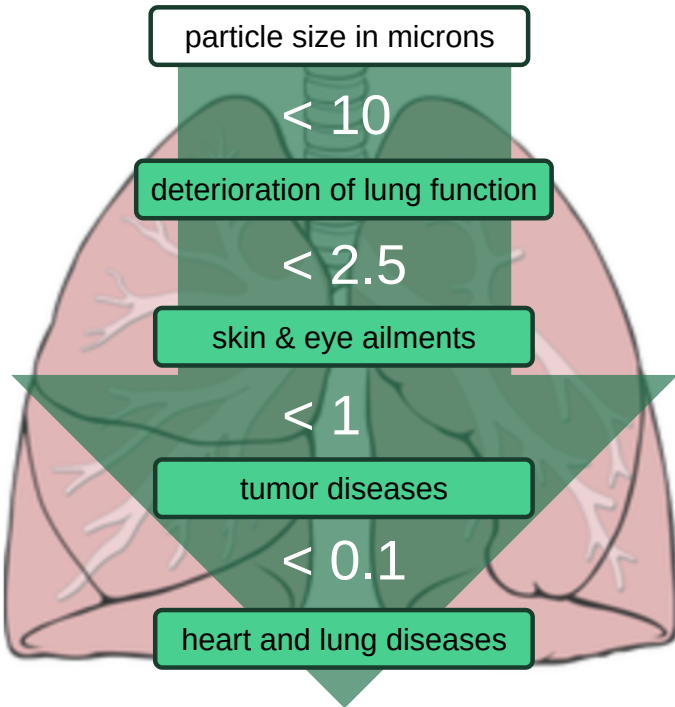
Pollutant	Source	Health Effect
Ground Level Ozone	Pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight forming ozone.	Chest pain, coughing, throat irritation, airway inflammation, reduced lung function; aggravates bronchitis, emphysema, and asthma
Particulate Matter	PM is the term for a mixture of solid particles and liquid droplets found in the air, coming from an almost infinite number of sources.	Increased risk of heart attacks, stroke, asthma, decreased lung function, low birth weight, premature birth, among others
Carbon Monoxide	Burning of fuel – traffic emissions, power plants	Reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain
Lead	Metals processing, waste incinerators, utilities, leaded aviation fuel	Negatively affects nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system
Sulfur Dioxide	Fossil fuel combustion -power plants, industry	Irritates airways and aggravates respiratory diseases like asthma
Nitrogen Dioxide	Burning of fuel – traffic emissions, power plants	Irritates airways and aggravates respiratory diseases like asthma

## HAPs are another important group of pollutants

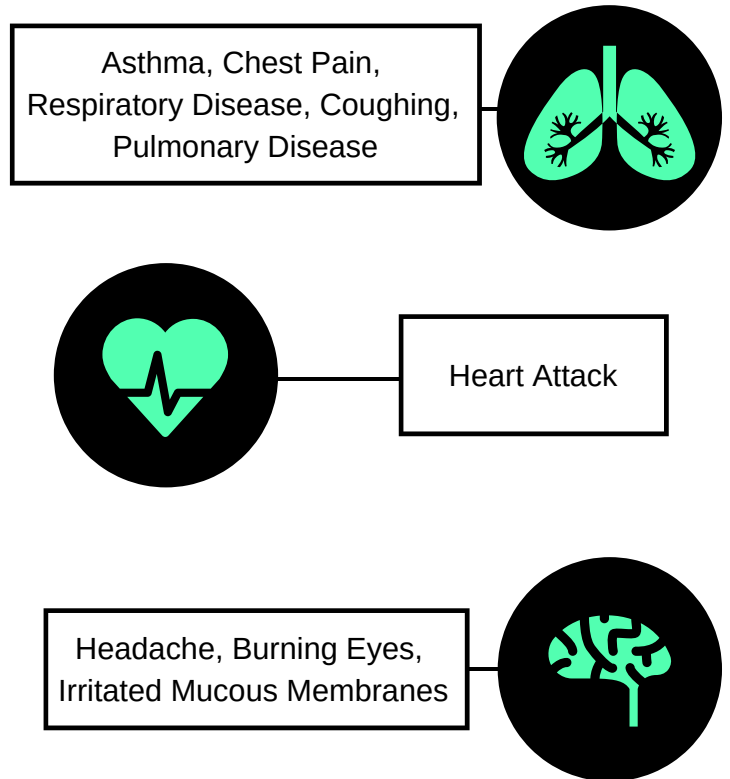
Hazardous Air Pollutants (HAPs) are pollutants known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

Two of these pollutants are more common in our area and contribute to a large number of our negative health consequences. These pollutants harm more than just the respiratory system.

Particulate matter comes in a variety of sizes. The smaller the particle, the deeper it can travel into your respiratory system. The tiniest particles can actually make it into your blood stream and travel throughout the body. Southwestern PA has very high levels of PM.



Because ground level ozone is formed in the presence of sunlight, concentrations are higher in the summer, especially near major roadways.



## How can I protect myself?

### Check the Air Quality Index

The AQI gives you a forecast of what the air quality will be like, and what the associated health effects are for the day.



Visit [AIRNow.gov](http://AIRNow.gov).

### Sign up for Allegheny Alerts

Choose what types of alerts you are interested in and if you want them to call, text, or email you.



The easiest way is to google "Allegheny Alerts" and click the link called Allegheny County Citizen Notifications.

### Pre-plan outdoor activities

Choosing the right time of day and location can minimize pollution exposure.



Try to avoid being active near busy roadways and during rush hour.

Visit [gasp-pgh.org](http://gasp-pgh.org) or call 412-924-0604 for more info.

