



# Air Pollution and Health

## What is air pollution?

Air pollution is the name for the mixture of substances in the atmosphere (the air around us that we breathe). Air pollution can cause health problems, by inhaling particles, such as reactive chemicals like ozone, and biological materials like pollens. Air pollution is produced both by human activity (such as combustion of fossil fuels from burning coal) and naturally occurring events (such as volcanoes, dust storms, and wild fires).

It is important to remember that; air pollution is a mixture of many agents, can come from many sources, and varies depending on weather conditions. While many pollutants can affect our health, ozone and particulate matter (soot) have a major impact on the public's health. Ozone can cause chest discomfort, decreases in lung function, and airway inflammation (i.e., irritation and injury to the tissue lining the airways). People with asthma can develop breathing problems after exposure to ozone. Particulate matter (PM) also can cause respiratory problems, and has been shown to increase the risk of heart problems in older people, especially those with a prior history of heart disease. Exposures to both ozone and PM have been shown to increase the risk of premature death.

## How can I prevent the health effects of air pollution?

There are several things that you can do to reduce air pollution in and around your home and the areas where you live and work.

- Advocate for stricter air quality regulations.
- Decrease your personal contribution to air pollution by reducing energy consumption through the use of cleaner, more efficient appliances in your home.
- Use public or active (walking or bicycling) transportation.
- Avoid heavy exercise near busy roadways or on smoggy days
- Eat a healthy diet that contains fruits and vegetables high in antioxidants (shown to prevent the health effects of pollutants like ozone)

- Seek care for proper management of lung and heart conditions

## What problems might I have if air pollution is affecting me?

You may experience any of the following problems.

- Chest discomfort like trouble taking a deep breath or feeling like you are having a heart attack
- Shortness of breath
- Phlegm/mucus production
- A cough where you may or may not bring up mucus
- Wheezing which may worsen with activity
- Decreased lung function on breathing tests, electrocardiogram (ECG) changes, including irregular heart beat (arrhythmias) or changes showing your heart is being damaged (ischemia).

## How can I prevent the health effects of air pollution?

Reduce your exposure to air pollution by following the warnings given during "smog" alerts, especially if you or your child have conditions such as asthma or ischemic heart disease.

- Stay indoors on smoggy days
- Keep windows closed and use air conditioning on hot, smoggy days
- Use your asthma and heart medications as directed to treat attacks on smoggy days

## When should I contact my healthcare provider?

Get immediate help if your breathing suddenly gets worse or you have symptoms of a heart attack or heart problems.

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