

Green Facts

Smog and Your Health

The Potential Health Effects of Smog

Smog can affect anyone's health. It may irritate one's eyes, nose and throat, and can cause wheezing, coughing and breathing difficulties. Smog can also adversely affect the lungs and heart, and has been linked to increased respiratory and cardiovascular hospitalizations. It can aggravate pre-existing heart and lung conditions such as asthma, emphysema and bronchitis and in some cases can result in premature death.

Sensitive Groups

Smog can affect everyone's health. Even healthy young adults may breathe less well on days when the air is heavily polluted. Some people are more sensitive to the effects of air pollution than others and may experience adverse health effects at lower levels of air pollution. Sensitive groups include:

- people with lung diseases (e.g. asthma) and heart conditions
- seniors
- children
- pregnant women
- people with allergies
- smokers
- people who work or exercise outdoors

How to Protect Yourself

- Check the Air Quality Index in your community, especially during smog season (from May to September). If a Smog Advisory is issued in your community, tailor your activities accordingly.

- Avoid or reduce strenuous physical outdoor activities when smog levels are high, especially during the late afternoon when ground-level ozone reaches its peak. Try not to exert yourself outdoors.
- Avoid or reduce exercising near areas of heavy traffic, especially during rush hour.
- If you have a heart or lung condition, talk to your doctor about additional ways to protect your health when smog levels are high.

If you experience any breathing difficulties or respiratory complications contact your physician or go to the nearest hospital.

Air Quality

Local air quality affects your health and can change from day to day. It is important for you to be aware of the quality of the air around you and to understand the impacts it can have on you and your family.

The Ministry of the Environment provides current air quality information and makes it accessible and easy to understand. The ministry samples and analyses air across Ontario continuously and reports air quality readings to the public using the Air Quality Index, or AQI.

The AQI is a scale that ranges from 1 to 100+, divided into five categories. A low AQI rating means air quality is generally good and a high rating means the air is poor. The AQI measures up to six air pollutants, the most prevalent among them being ground-level ozone and fine particulate matter.

0-15	Very Good
16-31	Good
32-49	Moderate
50-99	Poor
100+	Very Poor

What do we measure?

Ozone is formed at ground level when pollutants emitted by cars, refineries, chemical plants and other sources react chemically in the presence of sunlight. Ground-level ozone is a harmful pollutant, and must not be confused with the protective ozone in the upper atmosphere which shields the earth from the sun's ultraviolet rays.

Small particles in the air, known as fine particulate matter, pose a health concern because they can pass through the nose and throat and get deep into the lungs. Such particles are a product of combustion, when fuels such as coal, oil, diesel or wood are burned. Particulate matter comes from the emissions of everything from power plants to wood stoves and motor vehicles. Particulate matter also comes from wind-blown dust, brake-lining and tire wear.

If the ministry anticipates within 24 hours, regionally widespread poor air quality with the AQI going above 50, it will issue a Smog Advisory and will outline some "best practices" that you should adhere to on a poor air quality day.

For more information on air quality, go to www.airqualityontario.com.