

Environmental Health

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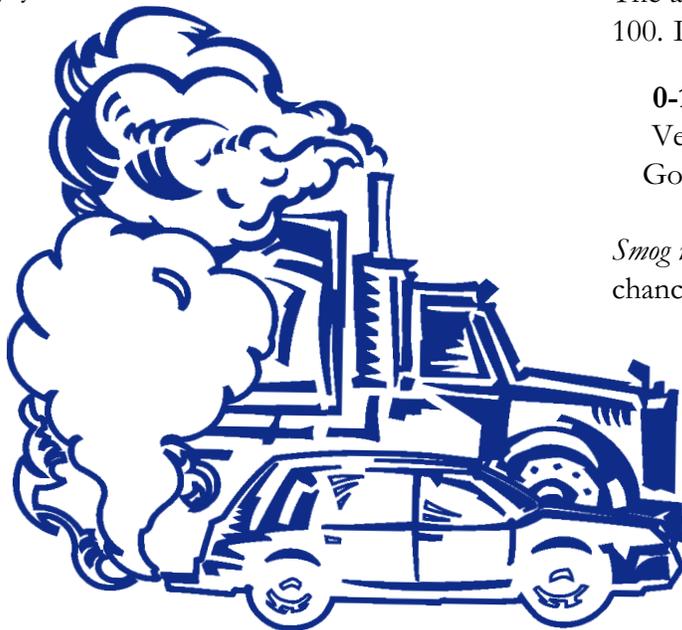
Smog and You

What is Smog?

The term “smog” was first used to describe the combination of smoke and fog present in England during the Industrial Revolution of the 1800’s. The smog we experience in Ontario today is different. Smog is made up of ozone and fine particles and often appears as a brown-yellowish haze. Smog tends to be more of a problem in the summer months than in winter.

Smog and Our Health

A strong link exists between air pollution and health problems. Federal studies show that smog costs the Canadian health care system more than \$1 billion per year. Each year, approximately 2,000 people die prematurely due to smog. In addition, smog causes 10,000 hospital admissions, 13,000 emergency room visits and 50,000 sick days every year.



Who is at Risk?

People react differently to smog. It depends on how long they are exposed to it and the amount of smog present in the air.

Usually, older adults and those who suffer from cardio-respiratory problems (such as asthma) are most at risk from smog. Children and newborns are also more sensitive to air pollution because their rate of breathing is higher than an adult. People who exercise outside on hot days are also more likely to get sick from smog.

Air Quality Index

There are 35 air quality monitoring stations across Ontario. An air quality index for different Ontario communities is updated regularly and posted at www.airqualityontario.com.

The air quality index is recorded on a scale of 0 to 100. It breaks down this way:

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

Smog watches are issued when there is a 50 per cent chance of a *smog alert* being issued within the next three days. *Smog advisories* are issued by noon on the day before a *smog alert* is expected. *Smog alerts* are issued when the index is 50 or higher for the region. On average, *smog alerts* are issued approximately 35 days per year.

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Sources of Air Pollution

The biggest source of smog in Ontario is the exhaust fumes from cars, trucks and buses. The design of vehicle exhaust systems is better and has helped cut pollution from individual vehicles. Still, total emissions are going up due to the growing number of vehicles on the road.

Industry is another major producer of smog. Refineries, smelters and power generating plants put out chemicals that can combine and produce smog. Solvents and coatings used by industry also produce smog-forming emissions, as do many cleaning products, paints, pesticides, herbicides and fertilizers.

More than half the smog that blankets Southern Ontario originates in the United States Midwest. The smog is carried by the wind through the Ohio Valley into Ontario.



Reducing Your Exposure to Smog

Check the Air Quality Index for your community on a regular basis. Smog levels are highest from April to September.

During high smog levels, avoid strenuous outdoor exercise. This is especially true during the afternoon and rush hour period when ground level ozone is at its peak. Children, older adults and people with chronic heart and lung disease should remain inside during late afternoon and early evening.

People who experience eye, nose and throat irritation, chest discomfort, shortness of breath, and have possible lung damage should stay in a room that is cool and moist. Take note that too much air conditioning dries the air.

How You Can Help Reduce the Emission of Air Pollutants

- Cut down on your driving. Instead, walk, bike, take public transit or car pool.
- Keep your vehicle well-tuned. A well-maintained vehicle runs better and pollutes less.
- Conserve energy at home and at work using energy-efficient appliances. Turn off lights and use air conditioners less.
- Limit your use of gas-powered small engines, such as lawnmowers, chainsaws and leaf blowers
- Avoid using oil-based paints and aerosol sprays/cleaners.

To learn more about smog and air pollution, contact your local Health Unit office.