

Protection from air pollution

Outdoor air pollution can harm our health

Cars, buses, trucks, and other motorized vehicles are one of the largest sources of outdoor air pollution that have been clearly linked to negative health effects. Studies in North America and Europe have shown that children living in areas with high road traffic volumes have more respiratory-related illness symptoms than other children¹. In addition to road traffic, other neighbourhood sources of air pollution, such as factories, asphalt road paving and construction, charcoal barbecues, and back yard burning can also have an impact of the local outdoor air quality.

Air pollution can cause health problems in all people; however, those most effected are:

- Young children
- Pregnant women
- Seniors
- People suffering from asthma
- People with heart and lung problems
- Smokers

Children are at a higher risk from exposure to air pollution because they are outdoors more, their lungs are still developing and they breathe at a faster rate.

Signs and symptoms caused by smog/air pollution include:

- Coughing
- Wheezing
- Chest tightness

Air pollution has been linked to increases in asthma symptoms, hospital admissions and early death rates. Evidence also suggests that long-term exposure to smog is associated with an increased risk of lung cancer and heart disease. In addition, existing heart and lung conditions and sensitivity of asthmatics to allergens may be aggravated.

The Ontario Medical Association estimates that air pollution contributes to an estimated 9,500 premature deaths in Ontario each year. (Source: Ontario Medical Association WebLink: Ontario Doctors Caring for You. June, 2008)

¹ http://www.hc-sc.gc.ca/hl-vs/alt_formats/pdf/iyh-vsv/environ/traf-eng.pdf

How air pollution levels are monitored

There are two ways outdoor air quality is monitored in Ontario - the Air Quality Health Index and Air Quality Index.

The Air Quality Health Index or "AQHI" is a scale designed to help you understand what the local air quality around you means to your health. It is a health protection tool designed to help you make decisions to protect your health such as limiting short-term exposure to air pollution and adjusting your activity levels during increased levels of air pollution.

The AQHI translates air pollution levels into a 10 point scale. The higher the number, the greater the health risk associated with the air quality. Based on the AQHI number the health risk is categorized as low, moderate, high or very high. For each risk category, the index provides advice on how the general public and those sensitive to air pollution can protect their health during these periods of increased air pollution.

To find out the current and forecasted AQHI reading for your local area visit the AQHI website (www.airhealth.ca) and select either Newmarket (northern York Region) or Toronto (southern York Region) monitoring stations.

To obtain **more information on AQHI** visit www.york.ca

The Air Quality Index (AQI) is another rating scale that measures regional outdoor air quality in Ontario. The AQI measures the impact of air pollution on both the environment and visibility by converting pollutant levels into numbers to determine whether the air quality is considered to be "good," "moderate" or "poor". Generally, the lower the AQI the better the air quality. A smog advisory is declared if forecasts indicate the AQI may exceed a reading of 50 in a given geographic area.

To find out what the current AQI readings are for York Region (Newmarket or Toronto North station) see the air quality reports and three-day forecasts at www.airqualityontario.com. Those interested can be directly notified of smog alerts by registering for the Smog Alert by Email service on the provincial website. Air quality reports are also available by calling 416-246-0411 or 1-800-387-7768 (French language 1-800-221-8852).

How those most affected may be protected

During episodes of poor air quality levels, the following actions can be taken to minimize exposure to air pollutants.

- Check the AQHI daily (www.airhealth.ca) as well as registering with the MOE's Smog Alert Network (www.airqualityontario.com)

- Be aware of every child who has a medical condition that may be moderately or severely aggravated by high air pollution levels
- Monitor any children who fall into the above category during all outside activities between May and September
- Be ready to seek medical attention for these children and contact their parents or guardians as required
- Reschedule outdoor activities to another time when air pollution levels are not high. If outdoor activities are necessary, then frequent rest breaks should be scheduled and taken
- Avoid strenuous exercise activities during high pollution times
- Encourage children to stay hydrated by drinking plenty of fluids
- Keep children away from high traffic areas to reduce exposure to vehicle exhaust
- Consider energy conservation actions to reduce your facility's contributions to local air pollution

Refer to the section on *Consent to obtain emergency medical care on behalf of the child* in Chapter 1. Refer to Appendix 4 *Smog advisory today - why should I care? Even healthy kids are vulnerable* for additional information.

Help reduce air pollution levels

Child care centres should take the following actions and refrain from activities that could worsen the air quality:

- Limit the use of cars: walk, cycle, carpool or take public transit
- Telecommute (work from home) and teleconference whenever possible
- Reduce unnecessary engine idling of your vehicle at all times. If you are going to be stopped for more than 10 seconds (except in traffic), turn off your engine
- Restrict the use of oil-based paints, solvents, glues, gas-powered engines (such as lawnmowers and leaf blowers), charcoal barbecues and back yard burning