

The Community Health Reporter

From the [Community Health & Well-Being in Southwestern Ontario: A Resource for Planning](#) Report
Volume 2, Issue 3

Did you know ...

The City of London...

- Has had one of the highest average daily ozone levels among selected Canadian cities?
- Has had a higher average yearly total suspended particulate level than Ontario since 1983?
- Exceeded Ontario's 1-hour ozone limit 17 times in 1993?

What is the Air Quality Index?

Ontario's Air Quality Index (AQI) provides a general indication of air quality by measuring levels of certain pollutants. The index can range from 1 to over 100, where the higher the number, the higher the amount of pollutants.

What are the Health Effects?

Poor air quality can cause health problems, ranging from eye, nose and throat irritations; coughing, wheezing, and shortness of breath; to lower resistance to infections; and can aggravate heart or lung problems.

Those **most at risk** for these health problems include young children, the elderly, those with current heart and lung problems, asthmatics, smokers, and those who work or exercise outdoors.

Your Health & Tomorrow's Health Care System

Fact: London's ground-level ozone levels are one of the highest in Canada, and airborne particle rates are high in comparison with Ontario's.

Situation: Higher levels of ozone and airborne particles can result in increased hospitalization, physician and emergency room visits, respiratory morbidity and cardiopulmonary disease mortality. This could amount to a large overall burden of illness in the population.

Solution: Encourage regulatory reform at all levels of government to update standards and expand research dollars and municipal policies; for example, improving recycling programs, updating pollution by-laws, and reducing the use of certain chemicals. Focus your efforts on problems directly affecting your area.

What can I do?

To improve air quality:

- Walk, ride a bike, car-pool, take public transit, and have regular tune-ups on your car.
- Reduce the use of oil-based paints and glues, pesticides, air conditioners and gas-powered small engines, such as lawnmowers.
- Use high octane unleaded gas.



How Does London Compare?

In London, the AQI was very good 91.5% of the time (1993). While some of the pollutants measured by the AQI have been meeting Ontario's standards, the pollutants of greatest concern in London are ground-level ozone and airborne particles.



Ground-Level Ozone

London and Windsor recorded the highest average daily ozone levels among Canadian cities between 1980 and 1991, scoring moderate on the AQI. At this level, a sensitive person could experience respiratory irritation during vigorous exercise, and persons with heart/lung disorders are at some risk.

In 1993, London exceeded Ontario's 1-hour limit 17 times, scoring poor on the AQI. At this level, a person may experience inflammation in the respiratory tract, reduced lung function, and reduced capacity for exercise and outdoor physical work.

Airborne Particles

Airborne particles are very small pieces of solid or liquid matter, varying in size, composition, source and effects on respiratory health. Since 1983, London's total suspended particulate (TSP) levels have generally been greater than the provincial average.

Fine inhalable particles are of most interest because they can penetrate deeply into lungs, and are most likely to be an important contributing factor to respiratory disease. Fine particles tend to come from man-made sources, especially in combustion of fuels.

Smog in Ontario is largely composed of ozone and fine particles. Vehicle emissions are a major cause of smog. Based on studies by Health Canada and others, the environment and energy ministry estimates that smog causes about 1,800 premature deaths annually in Ontario (1997). Consequently, Ontario has developed a "Smog Plan" to address this problem.

Ultraviolet Radiation



To prevent ultraviolet radiation damage:

- Protect yourself and your family from the sun by covering up, avoiding the sun from 11 a.m. to 4 p.m., and wearing sunscreens with a SPF of 15 or stronger.
- Winter sun can cause skin damage as well, so take precautions during activities like skiing.

Community Resources

The [Middlesex-London Health Unit](#) has numerous resources for those looking for more information on these issues. They can be reached at (519)663-5317, or by mail at:

Middlesex-London Health Unit
50 King Street
London, ON
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[Community Health and Well-being in Southwestern Ontario: A Resource for Planning](#)

To order a full copy of the report please contact:

[Population and Community Health Unit](#)

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This newsletter is based on information from the above report. The report includes a detailed statistical analysis of health-related issues for the City of London and each county in Southwestern Ontario.

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In 1992, the Ultraviolet (UV) Index was developed to predict the daily maximum strength of UV radiation. The UV Index ranges from 0 to 10, where the higher the number the higher the strength of the radiation. Anything above 7 is high and 9 is extreme, but precautions still need to be taken when the index is 4 and above.

Health effects associated with excessive sun exposure include skin cancer, cataracts, premature aging of the skin, and weakening of the immune system.

Those at higher risk of skin damage include children under the age of 18, those with fair skin, those who burn easily and rarely tan, and those with a personal or family history of skin cancer.

It takes 20 to 40 years for the impact of over-exposure to the sun as a child to develop into cancer. A severe burn, **especially for anyone under the age of 18**, increases your chance of skin cancer in adulthood.

Information throughout this newsletter is provided courtesy of James Reffle of the [Middlesex-London Health Unit](#)



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