



Air Pollution

Why is our climate changing?

The atmosphere of the earth contains the air that we breathe, protects us from radiation and keeps our planet warm. Gases in our atmosphere, called "greenhouse gases", hold in the heat. About a hundred and fifty years ago, we began to burn large amounts of fossil fuels (oil, coal and natural gas) to create power and heat. These fuels release carbon dioxide and other greenhouse gases into our air. In fact, billions of tons of greenhouse gases are added to the atmosphere every year. This is like throwing an extra blanket on the bed - it traps in more heat and warms our planet, causing our climate to change. And this will, in turn, affect our weather.

Average temperatures in Canada are already rising. Scientists predict that, over the next century, Canada will be 1.5°C - 5°C warmer in the South and as much as 5°C - 7°C warmer in the North. Even a small increase in the average yearly temperature could have serious consequences that would affect our health, and especially that of our children.

How does climate change affect air pollution?

Warm temperatures create the perfect conditions for the production of "smog" - that brown haze that hovers over cities on hot, sunny days. Smog is largely made up of "ground level ozone", a gas formed when sunlight and heat combine with the fumes from cars, trucks, lawnmowers, boat engines, ATVs and other fuel powered engines, as well as, the emissions from manufacturing plants, dry cleaners and coal or gas-fired power plants. Smog and ozone, like other air pollutants, can irritate the throat and lungs, especially in infants and young children, causing severe breathing problems, asthma attacks, swelling of the lung tissue

and weakening of the immune system. Children are already more likely to go to the hospital for breathing problems caused by air pollution than for any other reasons. Global warming is likely to make the air pollution problems worse.

What are the dangers?

Take a deep breath in one of Canada's larger cities on a hot summer day, and chances are you're taking in more than oxygen. Contained in that breath is likely a mixture of toxic pollutants and very fine dirt particles that can damage lungs and make people sick. Millions of tons of air pollutants are produced every year in Canada alone and tons more get blown north into our air from industrial regions in the United States.

Among the most harmful of these chemical pollutants are "sulfur dioxides", "nitrogen oxides" and "ground level ozone". Other pollutants occur naturally in the environment. They are irritants like pollen grains, spores from fungus and dust. Breathing any or all of these pollutants can irritate and cause damage to lungs and airways, lower resistance to illnesses such as flu and pneumonia, and severely increase asthma and allergy attacks. Health Canada estimates that air pollution is the cause of 5,000 premature deaths in Canada each year.

Most municipalities in Canada monitor air quality and issue air quality advisories when the levels of certain pollutants are high. It is important to be aware of such air quality advisories and to keep children indoors during these episodes.

CHILDREN are at greatest risk!

Children are most severely affected by air pollution.

- Children's lungs are still developing and, as a "work in progress", they are much more likely to be damaged from chemicals and dirt particles.
- Children need more oxygen for their body weight than adults and, as a result, breathe at a faster rate. Breathing faster means that they take in proportionally more air and pollutants.
- Children spend more time outdoors and are more active than adults. This increases their exposure to pollutants, especially if they play in parks and school grounds close to high traffic and industrial areas.
- Children's smaller size and their tendency to play on or nearer to the ground makes them more likely to come into contact with pollutants that are found at ground level.

What can YOU do to fight climate change?

All Canadians contribute to greenhouse gas emissions - every time we do anything that uses energy. In fact, the actions of individual Canadians account for 28 percent of Canada's total greenhouse gas emissions - that's almost 5 tons per person per year!

Cut back your use of energy

- Car pool, walk or cycle to reduce your car use.
- Buy a fuel-efficient car.
- Every year Canadians idling their cars produce almost 4,000 tons of carbon dioxide and other pollutants! Avoid idling your vehicle - ten seconds of idling uses more fuel than restarting your engine.

- Add extra insulation to your house and use weather stripping and caulking to seal windows and cracks where heat escapes from your home. This will reduce greenhouse gas emissions and could save up to 20 percent on your heating bill.
- Turn down the heat in cold weather and use fans on warm days. Be sure to drink plenty of fluids during all warm weather because of an increased risk of dehydration.
- Upgrade your windows to the energy efficient types.
- Plant a tree - a large tree can help keep your home cool, protect it from wind and trees absorb carbon dioxide - a greenhouse gas!

Get Active!

Take your concern about climate change to your Member of Parliament, MPP and local politicians. Tell your elected officials and utilities operators that you support efficient and environmentally friendly sources of energy. Use your consumer power to support new, green technologies.

Get Informed!

To learn more about the impacts of climate change on your children's health, visit the Canadian Institute of Child Health website at www.cich.ca. For more information about climate change and what you can do, visit the Government of Canada climate change website at www.climatechange.gc.ca or call 1-800-O-CANADA (1-800-622-6232).

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Ce feuillet d'information est également disponible en français



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