

# Environmental News

Spring 2009

## Climate Change and Your Health

Gloria Fraser, Nurse Education Coordinator,  
Environmental Health Clinic

Ontarians are experiencing extreme changes in the earth's climate in temperature, wind, precipitation, and snow fall. These climate changes are influenced by natural processes such as the increased intensity of the sun's rays and by human activities, such as burning of fossil fuels (e.g. coal and oil). This has created atmospheric changes, and the build-up of greenhouse gases which trap the infrared light and thus, heat the atmosphere.

Pollution and smog have contributed to poorer air quality. Air pollution consists of chemicals and particles that contaminate the atmosphere. Emissions from industries and vehicles are major sources of air pollutants. These pollutants can be transported great distances by wind, water or land.

The extremes in hot and cold temperature have caused changes in water levels and atmospheric conditions that have resulted in land loss and flooding. Also, there are more devastating extreme natural weather disasters such as hurricanes and tornadoes.

### Climate Change and Environmental Illness

People with environmental health conditions such as fibromyalgia, chronic fatigue and environmental sensitivities, are particularly affected by the extremes of hot and cold weather and air pollution. To adapt to climate change, individuals need to be more aware of the causes of climate change, its impact on the environment and how to minimize the effects of climate change on their health.

### Climate change impacts on health

The effects of climate change include:



### Direct Effects

• **Lung Disease** such as asthma and seasonal allergies related to increased days of smog and hotter weather.

- **Temperature-related conditions** such as heat stroke and dehydration.
- **Heart Disease**, such as heart attacks, whereby the risk increases with higher levels of smog.
- **Skin damage and skin cancer** due to increased exposure to ultraviolet rays.

### Indirect Effects

- **Increased frequency of diseases** caused by mosquitoes and ticks (E.g. West Nile Virus and Lyme Disease)
- **Increased food and water and biological contamination** resulting in diarrhea and other intestinal diseases.

### What can we do to decrease the effects of climate change?

- 1 **Lifestyle:** A healthier diet and more outdoor exercise will increase resilience. Eat more local fruits and vegetables (when available), less meat, and less processed foods. When exercising (e.g. walking, rollerblading, and cycling) make sure to drink lots of filtered water, even before you feel thirsty. Avoid drinks and beverages with caffeine, excess sugar and alcohol that cause dehydration.
- 2 **Conserve Energy:** Turn off appliances and lights. Increase insulation in the roof, walls and floors of your home. Drive the car less to reduce carbon emissions. Use public transportation, hold meetings by teleconference or web casting.
- 3 **Weather Protection:** Dress in layers according to the weather extremes of winter and summer. E.g. Wear a hat Use SPF 30 for skin protection from the sun. Use natural skin protection against ticks or mosquitoes For example, insect

Volume 11, Issue 1

repellent made from essential oils, including lemon and eucalyptus essential oil, is recommended by the Centers for Disease Control for effective protection against mosquitoes and ticks and safe for children and pets. If at risk, check Air Quality Health Index daily. For more information, go to: <http://www.airqualityontario.com/reports/summary.cfm>

### Conclusions

People with environmental conditions need to be aware of the impact of climate change on human health and well-being and look for new solutions to help adapt to environmental changes. Your health care professionals can make suggestions to help you cope with climate change.

### References

- Canadian Nurses Association (2009) The role of nursing in adapting to Climate Change. Retrieved February 2, 2009 from [http://www.cna-aicc.ca/CNA/documents/pdf/publications/Climate\\_Change\\_2008\\_e.pdf](http://www.cna-aicc.ca/CNA/documents/pdf/publications/Climate_Change_2008_e.pdf)*
- Health Canada (2005). Your Health and a Changing Climate. Retrieved February 10, 2009 from <http://www.hc-sc.gc.ca/ewh-semt/pubs/climat/brochure/index-eng.php>*
- Ontario: Climate Change (Jan. 2007) retrieved Feb. 10, 2009 from <http://www.ene.gov.on.ca/en/air/climatechange/what.php>*
- World Health Organization (2009). Climate and health. Retrieved Feb. 25, 2009 from <http://www.who.int/globalchange/news/fsclimandhealth/en/index.htm>*



### In this issue:

- Climate change and your health, **p.1**
- Accessible buildings, **p.2**
- Lead and Children's toys, **p.3**
- What's On, **p.4**



## Making Ontario Accessible: The Built Environment

*Nancy Bradshaw, Community Outreach Coordinator,  
Environmental Health Clinic*

In 2005, the Ministry of Community and Social Services adopted the Accessibility for Ontarians with Disabilities Act to make Ontario accessible for people with disabilities by the year 2025. To implement and enforce the Act, accessibility standards are being set in 5 areas:

customer service (already developed and in force)

- **transportation**
- **built environment**
- **information and communications, and**
- **employment**

In March 2008, I joined Built Environment Standard Development Committee, as a disability advisor for environmental sensitivities. The Committee is made up of 44 representatives, split equally between disability representatives, and private and public sector representatives related to the built environment (i.e. structural engineers; architects; building owner, hotel and home builder representatives; as well as representatives from the public housing, healthcare, school board and university sectors). Other disability representatives include the Canadian Paraplegic Association, MS Society, Canadian National Institute for the Blind, Ontario March of Dimes, Canadian Hearing Society, Toronto Rehab Institute and individuals.

For the purposes of the Committee's work, the built environment includes all public and private sector:

- **buildings**
- **site development**
- **public ways, and**
- **Community parks, trails and playgrounds.**

Our task has been to develop an initial set of standards that remove, and prevent, barriers to accessing the built environment, with a focus on the first five years. (E.G. 2010 to 2015)

Over this past year, we completed a Proposed Accessible Built Environment Standard document, which provides standards for over 70 elements related to buildings (i.e.

doors, ramps, windows, etc.), as well as a preliminary set of standards for housing.

Our "bible" has been the Ontario Building Code (OBC). The standard, that we developed for each element either meets current OBC requirements, exceeds them or provides standards in areas where the OBC does not have jurisdiction (e.g. walking trails, picnic tables, etc.).

The Proposed Standard document contains a section on Air Quality standards, (including no or low VOC materials), written by me (Nancy Bradshaw), Stephen Collette of Your Healthy House, and Eleanor Johnston, Environmental Health Clinic consumer representative. Linda Nolan of the Environmental Health Association of Ontario and our clinic doctors and staff, have provided review and feedback to the writing team.

We see these standards as an important first step to making the built environment more accessible for people with environmental sensitivities. Due to the size of the document (over 300 pages) and the tight timelines, we could not provide standards for all barriers related to environmental sensitivities. For example, we provided some preliminary comments re: electromagnetic fields (EMF's), but they were considered beyond the scope of this initial document. However, an updated version of the document will be completed in a few years to address gaps.

It is expected that the document will be ready for public review and comments in early July. We encourage you to review the document and make comments, particularly on requirements which you think are missing. For example, one of the recommendations that we proposed (but was not accepted), concerned hospital rooms. We recommended that, "in healthcare facilities, 1% of all rooms (not less than one room) shall be supplied with positively pressured, dedicated ventilation". The intent is to provide dedicated "clean" air in at least one hospital room in every Ontario hospital, to assist hospitalized MCS patients with their recovery. If you would like this added to the document, you may include it in your comments during the public review period (July – September, 2009).

Please check the website <http://www.mcsc.gov.on.ca/mcsc/english/pillars/accessibilityOntario> in late June/early July for the public release of the document.

Following the review period, the document will come back to our Committee for finalization, before it is sent to the Minister of Community and Social Services for implementation.

Thank you to Steven Collette, Eleanor Johnston, Linda Nolan, Dr. John Molot, Dr. Alison Bested, Dr. Lynn Marshall, Dr. Riina Bray, Dr. Kathleen Kerr and Gloria Fraser for their assistance in developing the Proposed Accessible Built Environment Standard.

### Reference

*Ministry of Community and Social Services, Accessibility for Ontarians with Disabilities webpage at <http://www.mcsc.gov.on.ca/mcsc/english/pillars/accessibilityOntario/questions/aodo/sdc.htm>.*

## Lead and children's toys: Playing safe

Becky Paetkau, Nursing Student, University of Toronto

The recent media attention on lead in children's toys can be very upsetting, particularly for parents with young children. We want to equip you with the facts you need, to ensure your child is playing safe.

Lead is a toxic, grayish-blue heavy metal. Evidence shows that the ingestion of small amounts of lead can have harmful effects on a child's cognitive and behavioural development, growth and hearing (Health Canada, 2005). At higher levels of exposure, lead poisoning symptoms can be similar to those of the flu, including fatigue and stomach pains (Health Canada, 2005).

High levels of lead have been discovered in the painted coatings and plastic parts of various children's products, including costume jewellery, action figures, table and chair sets, dolls and pacifiers. Since 2007, millions of children's toys have been recalled in North America due to lead content (Minnesota, 2008).

While Health Canada (2007) regulations permit traces of lead in children's products, most of the recalled items have dramatically exceeded Health Canada levels. The reality, according to the Canadian Partnership for Children's Health and the Environment (2005), is that there is no safe level of lead exposure for children.

## Why is lead found in



## children's toys?

Although regulations do not permit the use of lead for children's products in North America, lead has been used in imported products as an inexpensive means to soften plastics and improve the durability of paints (Phillips, 2007). When a child ingests lead, it enters their bloodstream and can have harmful effects on the child. The risk of lead exposure is greatest with old, chipped,

or deteriorated plastic or painted toys because a fine lead-containing dust can build up on the toy's surface. (Phillips, 2007). Frequent mouthing or chewing on a toy containing lead and frequent hand to mouth contact are also associated with increased risk for harmful lead exposures (New York, 2007).

## Tips to protect your children's health:

- 1 Stay informed of the latest recalls on children's products by watching for news headlines and checking the Government of Canada's list of recalled children's items available at <http://www.hc-sc.gc.ca/cps-spc/child-enfant/toys-jouets/index-eng.php>. If one of your child's toys has been recalled, get rid of the toy immediately. Check the recall notice for information on returning the toy for refund or replacement.
- 2 When purchasing toys, look for items made in Canada and the USA as these manufacturers are more closely regulated (Phillips, 2007). Toy items less likely to contain lead include board games, picture books, unpainted wooden toys, balls, washable stuffed animals, and non-toxic paint and crayon sets.
- 3 Wash children's hands and toys frequently. Washing with soap and water removes any fine lead dust that may be present (CPCHE, 2005).
- 4 If you suspect your child has been exposed to lead, speak with your doctor about the symptoms and ask for your child to have serum lead blood testing.

Play is important to the development of young children and toys are an important part of children's play. Make sure that your child is playing safe by purchasing lead-free toys.

## References

- Canadian Partnership for Children's Health and the Environment (CPCHE) (2005). *Child health and the environment: A primer*.
- Health Canada (2005). *It's your health: Effects of lead on human health*. [www.hc-sc.gc.ca/english/iyh/environment/lead.html](http://www.hc-sc.gc.ca/english/iyh/environment/lead.html).
- Health Canada (2007). *Consumer safety: Notice regarding Canada's legislated safety requirements related to lead content in children's toys*. [www.hc-sc.gc.ca/cps-spc/advisories-avis/info-ind/toy\\_lead-jouets\\_plomb-eng.php](http://www.hc-sc.gc.ca/cps-spc/advisories-avis/info-ind/toy_lead-jouets_plomb-eng.php)
- Minnesota Department of Health (2008). *Toys and lead: Lead fact sheet*.
- New York State Department of Health (2007). *Lead in children's toys: Questions and answers for parents*. [www.health.state.ny.us/environmental/lead/recalls/questions\\_and\\_answers.htm](http://www.health.state.ny.us/environmental/lead/recalls/questions_and_answers.htm)
- Phillips, J. E. (2007). *Lead in toys: Keeping our children safe*. California Department of Public Health. [www.co.el-orado.ca.us/publichealth/](http://www.co.el-orado.ca.us/publichealth/)

# WHAT'S ON!



Women's College Hospital has been highlighting their fragrance-free policy over the past 6 months. New signage has been created, articles have been published in the hospital newsletter, and Nancy Bradshaw has been holding education sessions for doctors, manager, staff and volunteers.

The WHO and Canadian Institute for Children's health have held mentor training sessions for healthcare professionals and our staff doctors' have been leading the way.

Prenatal Exposure Assessment project and children's environmental health history development is progressing. Canadian Institute of Health Research (CIHR) grant project is coming along.

## The Environmental Health Clinic

### The Environmental Health Clinic (EHC) at the

Women's College Hospital is located on the 10th floor, Room 1001 East Wing, 76 Grenville Street Toronto, ON M5S 1B2

Our Clinic phone number is (416) 351-3764 or

1-800-417-7092 and our

Fax number is 416-323-6130

You may also visit our

Web page under

[www.womenshealthmatters.ca](http://www.womenshealthmatters.ca)

Please feel free to call or write us for a copy of our Clinic brochure.



## Environmental News

is a free publication, published three times a year. To receive our newsletter, contact the EHC, as listed above.

If you have questions that you would like answered in our newsletter or have an article that you wish to submit for the next issue, please mail or fax them to the clinic. We may be unable to print every article due to space limitations. The information contained in this newsletter is published for your information only. It is not meant to replace the advice of your health care professional. If you have specific concerns regarding your health, please contact your physician or call our office to discuss your concerns.