

## INDOOR AIR QUALITY FACTSHEET 2: SIGNS OF BAD INDOOR AIR



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### The Link between Air Quality and Health

Indoor air in poorly ventilated homes can contain many different pollutants from many different sources. These can include:

- Toxic Mould,
- Dust Mites,
- Asbestos,
- Formaldehyde,
- Cigarette Smoke (from Processed Tobacco),
- Radon, and
- Various Pesticides.

Airborne pollutants are breathed in through the nose and mouth and can cause a variety of reactions. If you often have the symptoms listed below, the air quality in your homes might be poor.

### Symptoms of Possible Exposure to Air-Borne Toxic Mould

The presence of toxic mould in the air of your home can cause:

- Eye, nose and throat irritation;
  - Coughing and phlegm build-up;
  - Wheezing and shortness of breath;
  - Allergic reactions; and
  - Worsening asthma symptoms
- (Health Canada *Mould and Your Health* webpage, 2010).

### Symptoms of Possible Carbon Monoxide Poisoning

Low-level carbon monoxide poisoning can cause 'flu-like' symptoms, such as:

- Headaches;
  - Fatigue;
  - Shortness of breath;
  - Running noses;
  - Sore eyes; and
  - Impaired motor functions.
- (Canada Mortgage and Housing Corporation *Carbon Monoxide* webpage, 2009).

High-level exposure or longer periods of low-level exposure to carbon-monoxide can cause:

- Drowsiness;
- Dizziness;
- Chest pain;
- Poor vision;
- Vomiting, and
- Confusion.

(Canada Mortgage and Housing Corporation *Carbon Monoxide* webpage, 2009).

At very high levels of exposure, carbon monoxide can cause brain damage that can cause convulsions, coma or even death (Health Canada Advisory, December 17, 2009). It is important to watch for the signs listed above since carbon monoxide has no smell.

### Symptoms of Possible Exposure to Formaldehyde

Formaldehyde can cause irritation of the eyes, nose, and throat, and worsen the asthma symptoms of children and babies. At higher concentrations it produces a strong, sharp smell (Health Canada *Formaldehyde* webpage, 2009).

### People at more risk for the effects of Bad Air

While indoor air quality is an important concern for all people, some are more likely to be affected by indoor air pollution than others. The following groups are especially likely to be affected by bad air:

- Persons with allergies or asthma;
- Persons with other types of respiratory or lung disease (e.g. chronic obstructive pulmonary disease);
- People with weaker immune systems; and
- Infants and children.

(Canadian Lung Association *Pollution and Air Quality* webpage, 2010).

### Special Considerations for First Nations People

The rate of smoking among First Nations people is high. Up to 60% of people who live on-reserve smoke, and most of them (52%) started between the ages of 13 and 16 (Health Canada's *First Nations, Inuit, and Aboriginal Health webpage on Tobacco*, 2007). This means that they are more likely than other Canadians to be exposed to tobacco contaminated air.

This is alarming for two reasons. For one thing, tobacco pollution increases people's risk of developing some forms of cancer and other respiratory conditions. For another, infants and children are also at increased risk of being affected by indoor air pollution.

Poorly ventilated and over-crowded housing can lead to the spread of infectious diseases such as tuberculosis. Because more First Nations people live in overcrowded housing than other Canadians,<sup>1</sup> their chances of catching an infectious respiratory illness are greater. The Assembly of First Nations and the Inuit Tapiriit Kanatami jointly report that the rate of tuberculosis among Status Indians is 31 times higher than it is among members of the mainstream population of Canada<sup>2</sup> (Assembly of First Nations and Inuit Tapiriit Kanatami, 2010).

### The Bright Side: Air Quality can be Improved

Fortunately, there are things that you can do to make sure that the air quality in your house is good. These measures are outlined in the next factsheet in this series of three, *Indoor Air Quality Factsheet 3: Reducing the Risk of Breathing Bad Air at Home*.

### References

Assembly of First Nations and Inuit Tapiriit Kanatami (2010). Joint press release titled, "Inuit tuberculosis rate 185 times greater than the rate of others born in Canada; First Nations 31 times higher." Retrieved on August 17, 2010 on-line from: <http://www.itk.ca/media-centre/media-releases/inuit-tb-rate-doubles-185-times-rate-canadian-born-non-aboriginals-first>.

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Health Canada (2009a). Advisory, "Health Canada Reminds Canadians of the Dangers of Carbon Monoxide and How to Prevent Carbon Monoxide Poisoning". Retrieved on

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<sup>1</sup> Health Canada reports that while the general Canadian population has a housing density of only 0.4 persons per room, First Nations people living on-Reserve experience a housing density of 0.7 persons per room (please see Health Canada's *First Nations, Inuit, and Aboriginal Health* webpage on *Tuberculosis in First Nations Communities*, 2006).

<sup>2</sup> The two organizations' conclusion was based upon 2008 Aboriginal health data that was produced by the Public Health Agency of Canada.

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Health Canada (2007). *First Nations, Inuit, and Aboriginal Health* webpage on *Tobacco*. Retrieved on March 15, 2010 from: <http://www.hc-sc.gc.ca/fniah-spnia/substan/tobac-tabac/index-eng.php#facts>.

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