

The Health Effects of Wood Smoke



Region of Waterloo
PUBLIC HEALTH

Position Statement

Emissions from wood burning can affect outdoor and indoor air quality. Outdoor air pollution has been associated with a wide range of adverse health effects and the scientific literature to date indicates that most sources, including wood smoke, appear to play a role in these effects. Smoke from outside can also seep into buildings, including nearby homes, and affect indoor air quality.

The health effects of wood smoke exposure include eye, nose and throat irritation, increased respiratory symptoms, exacerbation of asthma, and increased hospital admissions for lower respiratory infections. As with exposure to other substances, the health effects would be dependent on the degree of exposure to wood smoke, and would be influenced by factors such as the duration, magnitude and frequency of exposure.

While occasional exposure to wood smoke may cause minor and reversible problems (even with persons with respiratory disease), regular and continued exposure to this and other sources of smog may cause more significant health risks. The harmful pollutants associated with wood smoke can impact the health of otherwise healthy people. Young children, the elderly, and people with pre-existing cardio-pulmonary disease are most likely to be affected.

Decisions regarding by-laws pertaining to wood smoke are made by municipalities. For municipalities considering regulations on wood burning, The Canadian Council of Ministers of the Environment (CCME) has developed a Code of Practice for Residential Wood Burning Appliances which can be found here:

http://www.ccme.ca/files/Resources/air/wood_burning/pn_1479_wood_burning_code_eng.pdf

The Public Health position regarding wood smoke is similar to that for other sources which contribute to air pollution:

- If the activity is to continue, then ways to decrease the amount of air pollution emitted should be sought. In the case of wood burning, proper wood burning practices and the use of low-emission, efficient wood-burning equipment would help reduce the amount of pollutants released into the air.
- The best way to minimize the risk of health effects is to minimize the production of the air pollutant itself; in this case, wood smoke.

For more information, please see Health Canada's fact sheet at:

<http://healthycanadians.gc.ca/healthy-living-vie-saine/environnement-air/contaminants/wood-smoke-fumee-bois-eng.php>

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