

Radon Exposure in the Interior Region of BC

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Title of Presentation:

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Other Details:

Key messages

- Radon is a tasteless, colourless, odourless radioactive gas
- Radon is produced from the breakdown of uranium, which is naturally found in rock and soil in Canada
- Health effects of radon exposure: radon causes lung cancer – 2nd leading cause of lung cancer (radon is attributed to 16% of lung cancer deaths)
- Radon exposure is preventable, but testing is needed to know if it's in homes, schools and other buildings
- High radon levels can be fixed. The cost associated to radon mitigation is similar to the cost of other home maintenance, such as installing a new furnace or central air conditioner

Radon is a tasteless, colourless, and odourless gas produced by the decay of uranium naturally present in rock and soil in Canada. Outdoors, radon levels are generally low; however, radon can enter buildings and homes through cracks and openings in foundations, making levels indoors much higher, especially in basements and lower floors. Radon gas emits alpha radiation, which damages cells in the lungs when inhaled.¹

Radon is known to cause lung cancer in humans,² as recognized by agencies including Health Canada, the International Agency for Research on Cancer (IARC), the World Health Organization (WHO), among others. CAREX Canada's risk estimates for environmental carcinogens prioritize radon as the most significant indoor air exposure for cancer.³ After smoking, Health Canada lists radon as the second leading cause of lung cancer, and the first for non-smokers; it is responsible for approximately 16% of lung cancer deaths in Canada.⁴

Lung cancer from radon is preventable as there are ways to remove radon from – or prevent entry into – indoor air environments (i.e. homes, schools, buildings). However, the only way to know if radon is present is to test. Many safe and reliable options exist for testing, including purchasing low-cost kits or hiring certified professionals through [Canadian - National Radon Proficiency Program](#) (C-NRPP).⁵

1. ATSDR. [Toxicological Profile for Radon](#) (2015) (PDF)
2. International Agency for Research Cancer. [IARC monograph summary, Volume 78](#) (2001) (PDF)
3. Setton E. et al. "[Risk-based indicators of Canadians' exposures to environmental carcinogens.](#)" *Environ Health* 2013;12(1):15.
4. Health Canada. [What are the health effects of radon?](#) (2012)
5. Canadian – National Radon Proficiency Program. [C-NRPP](#) (2017)