

Radon Gas: What is it, and could it be in your home?

Radon Gas is released when uranium breaks down. It is odorless, tasteless and invisible... and it is radioactive. And because uranium is found extensively all around the planet, there is a good chance that radon gas is seeping out of the ground at your feet. However, because it dissipates into the environment quickly, the concentration of radon gas in the air outside is very low, and harmless.

A problem can occur when a house is built over a high-uranium deposit. Rather than dissipating into the air, radon gas can seep into a house through cracks in foundation walls and basement floors, gaps around pipes, floor drains and sump pits. Depending on the ventilation of your home, this gas can be trapped in your home, and can reach dangerous levels, especially in seasons when your windows are kept shut.

Exposure over time to high levels of radon increases your risk of developing lung cancer. In fact, radon is the number one cause of lung cancer among non-smokers. And if you are already a smoker, exposure to radon further increases your risk of developing lung cancer.

Canadian guidelines recommend that the radon levels in your home should be below 200 becquerels per cubic meter (200 Bq/m³), although under 100 Bq is a more conservative safe level. Surveys have found that about 7 % of Canadian homes have concentrations of radon gas in excess of 200 Bq, and Ontario comes in slightly above the national average at just over 8 % of homes above that level.

And high levels of radon gas have been found in homes in the Glen.

How to find out if your home has high levels of radon gas?

The only way to determine if your home has high levels of radon gas is to test for it. You can hire a certified professional to test your home, or you can order a testing kit yourself. If testing yourself, Health Canada recommends you use a testing kit that sits in your home for 3 months, preferably during the winter when radon levels in homes are at their highest. Then you send the kit into a lab and will receive your results via mail or email.

There are also a number of radon detectors on the market that can give you results in a matter of hours rather than months. The advantage of these is obviously the quick results. However, radon levels go up and down, so a quick test does not give you a sense of your average levels.

Also, not all long-term and short term testing devices are created equal, so use a device that is known to be reliable and is recommended by Health Canada or a radon mitigation professional.

What to do if testing reveals your home has high levels of radon gas?

If your levels are found to be below 200 Bq, no further action is necessary (although if you are more conservative, you might choose to take action above 100 Bq).

If your levels are high, you would be wise to hire a certified radon gas mitigation professional, who will come to your home, further assess the situation, and outline steps that can be taken to lower the levels of radon in your home. Mitigation can involve sealing potential openings through which gasses from the soil seep into your home, as well as redirecting those gasses

directly outside before they even have a chance to penetrate your foundation floor and walls. Costs for completing this work will vary depending on the construction of your home.

Want to learn more?

Health Canada information about Radon Gas:

<https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/radon.html>

Health Canada link for recommended (and non-recommended) long-term testing kits you can order online:

<https://takeactiononradon.ca/test-for-radon/radon-test-kits/>

A short-term testing kit recommended by a certified radon mitigation professional:

<https://ecosense.io/en-ca/products/ecoqube>

Health Canada Link to find certified Radon Measurement and/or Mitigation professionals. Just put in your postal code, choose what type of professional you are searching for, and click "Search".

<https://takeactiononradon.ca/protect/find-a-radon-mitigation-professional/>

Health Canada cross country survey of Radon concentrations in homes:

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/cross-canada-survey-radon-concentrations-homes-final-report-health-canada-2012.html>

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