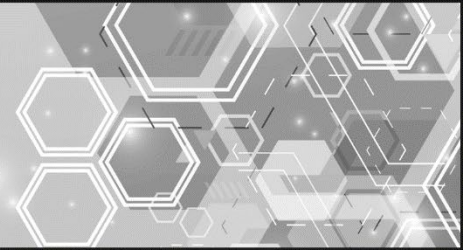




Durham Region Health Department **Facts about...**



Radon

What is it?

Radon gas is a product of uranium breaking down in soil and rock. As radon gas undergoes its own natural decay, it releases alpha particles, which are a form of ionizing radiation.

Radon gas can enter a building structure through openings such as cracks in the foundations, construction joints, gaps around pipes, sump pumps and drains. In indoor air, radon gas can accumulate to levels which can pose a health risk. In outdoor air, it is diluted to levels that do not pose a health concern.

You cannot detect the presence of radon gas, as it has no colour, odour, or taste. The only way to know your exposure level is to test for radon gas.

Can exposure to radon affect my health?

When the radioactive particles from radon are inhaled, they can interact with lung tissue and cause DNA damage. This damage can lead to the development of lung cancer over time. Radon is the second leading cause of lung cancer, next to smoking. The risk of developing lung cancer over a lifetime exposure to radon at a given concentration is greater for smokers than non-smokers.

Individual risk of lung cancer will depend on the level of radon and how long a person is exposed to that level.

How do I test my home for radon?

Do-it-yourself radon test kits are available for purchase at local home improvement stores or online. When deciding on what test kit to buy, choose kits that are approved or certified by the Canadian National Radon Proficiency Program (C- NRPP). The C-NRPP is a Canadian radon certification program operated by the Canadian Association of Radon Scientists and Technologists (CARST) with oversight by Health Canada.

Radon test kits are exposed to the air in a home for a specified period of time and sent to a laboratory for analysis. The cost of a radon test kit and analysis starts at \$40. Electronic radon monitors are also available and the cost can range from \$100 to \$400.

There are two general categories of radon measurement: long-term (3 -12 months) and short-term (less than 3 months, typically 2-7 days).

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If you require this information in an accessible format, contact 1-800-841-2729.



Indoor radon concentrations will vary significantly over time and is highest between the months of October and April, due to less natural ventilation when windows are kept closed during the colder months. This is the best time to test for radon.

Health Canada recommends long-term radon measurements, ideally conducted during the heating season, which will give a much better indication of the annual average radon concentration. While short-term tests are easy and convenient, results should be interpreted with caution, and should not be used to assess the need for corrective actions. Results of short-term tests should be followed up by a longer-term measurement.

You can also hire a certified radon measurement professional to conduct the measurements for you. Should you choose to hire a professional, make sure they are certified under the C-NRPP. This is the only program recognized by Health Canada and ensures the contractor's competency in this field.

How do I reduce radon in my home?

Health Canada has recommended a radon guideline of 200 Bq/m³. This level is based on an annual average concentration measured in spaces where people normally spend time. If the level of radon in a home is greater than the Health Canada guideline, corrective actions should be undertaken to reduce radon levels.

There are a number of options for corrective actions. These include:

- sealing cracks and openings in foundation walls and floors, and around pipes and drains; and
- installing equipment to increase ventilation within the home or draw the radon from below the concrete slab to the outside before it can enter your home.

Certified radon remediation contractors can help homeowners assess the need for remediation and provide installation services. For a list of certified radon contractors, visit the C-NRPP website.

Information for homeowners

The discovery of radon is a warrantable defect under the Ontario New Home Warranty and Protection Plan. The Tarion Home Warranty covers the cost of radon mitigation in new homes in Ontario that are 7 years old or less.

For older homes or homes not covered by the warranty, the Canadian Lung Association may offer assistance to eligible homeowners to perform radon mitigation. Eligible homeowners may be granted up to \$1,500 towards radon mitigation under the Canadian Lung Association grant program.

Information for renters

A tenant can request for a radon test, however if the landlord refuses, the tenant will have to purchase a test kit or hire a radon contractor on their own. If a radon test shows a level above Health Canada's guideline, a tenant should notify the landlord and ask to correct the problem by following Health Canada's recommendations. It is important to document requests to landlords and keep copies of receipts and test results. For assistance with dealing with radon-related issues, renters can contact the Ontario Landlord and Tenant Board at 1-888-332-3234 or the Advocacy Centre for Tenants Ontario at 1-866- 245-4182.

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Resources

Health Canada

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-your-home-health-canada-2009.html>

Take Action on Radon

<https://takeactiononradon.ca/>

To purchase test kits and electronic monitors online:

<https://takeactiononradon.ca/>

<https://tla-radon.com/>

Canadian National Radon Proficiency Program

To find a C-NRPP certified radon measurement or mitigation professional, trainer, analytical laboratory, or installer for controlling radon in new homes:

<https://c-nrpp.ca/find-a-professional/>

2023 Intercomparison Report

Consumer guide on using electronic radon monitors and performance-based comparison of monitors in Canada.

<https://c-nrpp.ca/wp-content/uploads/2023/10/Digital-Device-Report-Oct-2023.pdf>

The Lungs Matter: Home Radon Mitigation Support

This program provides up to \$1500 towards radon mitigation for homeowners who have been diagnosed with lung cancer or are from low- or moderate-income households (priority will be given to low-income households).

<https://www.lung.ca/air-quality/radon/lungs-matter-radon-mitigation-support>

Tarion Home Warranty for New Homes

The discovery of radon is a warrantable defect under the Ontario New Home Warranty and Protection Plan. The Tarion Home Warranty covers the cost of radon mitigation in new homes in Ontario that are 7 years old or less.

<https://www.tarion.com/>

November 6, 2024

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