Radon

Town Hall Meeting
Mono Community Centre
March 25th, 2017

So, why are we talking about radon today?

Radon is the second leading cause of lung cancer in Canada
Presentation outline

1. Radon and Health
2. Local Radon Levels
3. How to Test
4. What to do if Radon is High?
5. Radon Resources
What is radon?

• A naturally occurring radioactive gas

• Formed by the breakdown of uranium found in the earth

• Radon gas seeps up through soil and is released into the air
Radon in homes

- Radon seeps into homes through cracks in foundation
- Radon can accumulate to high levels inside homes

Image: radonawarenessproject.com
Radon and lung cancer

• Radon is the second leading cause of lung cancer (after smoking)

• ~16% of lung cancers in Canada are a result of indoor radon
Lung cancer risk

• The risk from radon depends on three factors:

1. Concentration of radon
2. Duration of exposure
3. Smoking habits or exposure to second-hand smoke

Health Canada's radon guideline

- The current **Health Canada** guideline for acceptable levels of radon in a home is:

  **200 Becquerel per cubic meter**

  (A Becquerel (Bq) is a measure of radioactivity)

  **200 Bq/m³**
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Where is radon an issue?

• In 2012, Health Canada completed radon in homes survey

• Measured radon levels in ~14,000 homes across Canada

• Key Findings:
  • High radon levels were found across the country
  • The only way to know is to test
Local radon levels

- Health Canada Study Results:

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of homes tested</th>
<th>% of homes above guideline</th>
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<tbody>
<tr>
<td>Canada</td>
<td>~14,000</td>
<td>6.9%</td>
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Radon levels can be very high

• Health Canada guideline: 200 Bq/m$^3$

• In Health Canada study, maximum radon level reported in this region was 1,200 Bq/m$^3$

• Local consultant assessed building in downtown Guelph and found 8,000 Bq/m$^3$
Presentation outline

1. Radon and Health
2. Local Radon Levels
3. **How to Test**
4. What to do if Radon is High?
5. Radon Resources
Approved radon test kits

- C-NRPP has a list of approved radon devices
  - [c-nrpp.ca/approved-radon-measurement-devices/](c-nrpp.ca/approved-radon-measurement-devices/)

- C-NRPP (Canadian National Radon Proficiency Program)
  - National Certification program that establishes guidelines, training and resources for radon professionals

Images: [www.takeactiononradon.ca/testing](www.takeactiononradon.ca/testing)
Where to find a radon test kit

• Sold in some retail stores that sell building and hardware products

• Sold online

• Public Health hosts radon information sessions each November at which test kits are sold

• C-NRPP certifies radon professionals who can test your home (c-nrpp.ca/find-a-professional/)
Testing considerations

• Radon levels vary week to week

• Radon levels are usually highest in winter

• Important to do a long-term test that includes the winter

Radon testing guidelines

• Health Canada recommends testing:

1. For three months or longer

2. During heating season, when window and doors are kept closed

3. In the lowest lived in level of home
Presentation outline

1. Radon and Health
2. Local Radon Levels
3. How to Test
4. **What to do if Radon is High?**
5. Radon Resources
Interpreting radon test results

- **200 - 600 Bq/m³**
  - Remediate within 2 years

- **> 600 Bq/m³**
  - Remediate within 1 year

Hire a radon professional to fix your home

• For a list of certified radon mitigation companies visit the National Radon Proficiency Program Website

• c-nrpp.ca/find-a-professional/
Fixing your home

1. Seal your basement (*i.e.* seal cracks in foundation, gaps around service pipes, etc.)

2. Increase ventilation throughout your home (*i.e.* install an air exchanger)

3. Install a device to re-direct and exhaust gases from under your home (*sub-slub depressurization*)
Sub-Slab depressurization

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Where can you find more information?

- www.wdgpublichealth.ca
- Health Canada
- C-NRPP
- Ontario Lung Association
- www.takeactiononradon.ca
RADON – WHAT YOU NEED TO KNOW

What is radon?
- Radon is an invisible gas that is found in many homes. It is a radioactive gas that is released naturally from the ground.
- Radon is odorless, tasteless, and colorless.
- Radon can seep into homes through cracks in the foundation or through water in the basement.
- Radon is a major contributor to lung cancer in homes.

What are the health risks?
- Radon is the second leading cause of lung cancer deaths in North America.
- Radon can cause respiratory problems, such as coughing, shortness of breath, and wheezing.
- Radon can also cause damage to the immune system.
- Radon can also cause skin problems, such as rashes and irritation.

How do I test my home for radon?
- You can test your home for radon by using a home testing kit.
- You can purchase a home testing kit from a local hardware store or online.
- You can also contact your local health department for information on testing your home.

For more information on radon testing, visit www.healthcanada.gc.ca.

RADON – ANOTHER REASON TO QUIT

Lung Cancer Risk

Lung cancer is the leading cause of cancer-related deaths in Canada. It is caused by smoking and exposure to radon gas.

SMAKING? Test your home for radon!
- Smoking is the second leading cause of lung cancer deaths in Canada.
- Radon gas is the second leading cause of lung cancer deaths in Canada.
- Radon is a gas that is produced naturally by the decay of uranium in the ground and gets into your home through cracks, gaps, or holes in the foundation.
- Radon is a colorless, odorless gas that can build up in your home over time.
- Radon can cause respiratory problems, such as coughing, shortness of breath, and wheezing.
- Radon can also cause hearing problems, such as ringing in the ears.

If you have high levels of radon in your home, reduce them!
- There are many ways to reduce your radon levels, including:
  - Ventilation
  - Sealing cracks and gaps in the foundation
  - Local authorities can also help you

Quit smoking and test your home.

Canada
TARION warranty on new homes

• Mandatory new home warranty protection is enforced by Tarion (www.tarion.com)

• New homeowners must contact Tarion directly to initiate a potential claim for radon gas during the 7 year warranty window

• 1-877-9TARION (1-877-982-7466)
Key points to remember

• Radon is 2nd leading cause of lung cancer in Canada

• Testing guidelines:
  1. Test for **3 months or longer**
  2. Testing during **heating season**
  3. Test the **lowest lived-in level** of home

• If test above the guideline, consult a professional radon contractor
Questions?