Radon:

Community Right to Know

The Canadian Cancer Society in Saskatchewan (The Society) strongly supports Community Right to Know. This means, we believe people have the right to know if they are being exposed to cancer-causing substances in their home, environment, or workplace. This allows Canadians to make informed decisions and take action that could impact their health.

The goal of the Society is to educate and inform residents, employers and workers about the cancer risk associated with radon, as well as ways that they can protect themselves against potential exposure.

What is Radon?

- Radon is a colourless, odourless gas created by the decay of uranium in rocks and soil. Uranium occurs naturally and can be found in small amounts in the soil, water and air.
- Radon contained in rocks and soil can enter homes and other buildings through cracks in concrete, floor gaps, and small holes in walls and drains.

Radon and Cancer

- Exposure to radon gas increases lung cancer risk. Exposure to radon and tobacco use together can significantly increase lung cancer risk.
- Health Canada currently estimates that 16% of lung cancer deaths in Canada are caused by radon.
- Exposure to high concentrations of radon at any age is harmful. Children exposed to radon can have an increased risk of developing lung cancer later in life. Risk increases with the level of radon concentration and the length of exposure.

Radon Exposure

- There is no known safe level of radon exposure and different health organizations have slightly different recommendations. Health Canada recommends radon levels inside homes and public buildings such as schools, hospitals, long-term care residences and correctional facilities should be 200 Bq/m^3 or less.
- It is possible that two homes situated side by side can have dramatically different radon levels, based on soils and house construction. The only way to know if radon levels in the home are a health risk is to have radon levels tested.
- While radon maps can be a useful tool, there is potential for radon to be present in high levels in any building in the country.

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Radon in Saskatchewan

- Health Canada tested homes across the country and found that Saskatchewan had some of the highest percentage of homes with levels above the radon guideline.
- In 3 health regions (RQHR, Cypress, Sunrise) 1 out of 4 homes tested above the guideline levels.
- Over the last 3 winters, the Heartland Health Region has been encouraging and assisting residents with testing for radon in their homes. Of the 150 samples tested so far, (sampling is still going on), almost 50% have tested over the recommended minimal level of radon of 200 Bq/m^3, with a number displaying quite high levels. The highest level so far recorded at 4,400 Bq/m^3. Interestingly, the national study, that did 111 samples in the region, (2009-2011), found around 20% of households tested in the region with higher than recommended levels.

Radon Solutions

- To reduce your risk for developing lung cancer from radon:
    - Test your home for radon
    - **If you have a radon problem at home, it can be fixed. The higher the level, the sooner action should be taken**
- Testing or measuring indoor radon levels is the only way to see if you're at risk of exposure. A radon test kit costs less than $50 and usually includes lab analysis of the results.
- Test kits are available from the Lung Association, the Saskatchewan Research Council, the Saskatchewan Disease Control Lab and many hardware stores.
- Hire a radon certified contractor to:
    - Install an active soil depressurization system (also known as sub-slab depressurization system). This reduces the concentration of radon in the soil, especially next to your home's foundation. Active soil depressurization is the most common and typically the best way to reduce the level of radon in your home.
    - Seal any cracks around pipes and any other openings below ground.
    - Opening air vents in the basement to create positive air pressure and making sure air is ventilated on the main floors
    - Advise on any work you would like to take on yourself
- The cost to reduce radon levels will depend upon the size of the home and the work required. Finding high levels of radon does not increase the cost of mitigation. Typically, the cost will range from $50 to $3,000. **Health Canada recommends when remedial action is taken, the radon levels should be reduced to a value as low as practicable.**
- After mitigation, always retest the radon levels in your home to ensure that the work was successful and the radon levels have dropped below the guidelines.
- To find a certified radon professional visit
    - Canadian National Radon Proficiency Program (C-NRPP) website at **c-nrpp.ca or call 1-800-269-4174**
    - The Canadian Association of Radon Scientists and Technologists (CARST) website at http://www.carst.ca/

Canadian Cancer Society Position

The Canadian Cancer Society recommends measuring radon levels in the home to see how they relate to the recommended guidelines. There is no known safe amount of radon exposure, and different health organizations have slightly different recommendations. The following trusted and recognized health authorities recommend taking action to reduce radon levels if they exceed these amounts:

- Health Canada 200 Bq/m^3
- World Health Organization 100- 300Bq/m^3
- United States Environmental Protection Agency 70 Bq/m^3 – 148 Bq/m^3 (2-4 pCi/L)

The Canadian Cancer Society recommends taking swift action to reduce high radon levels. Health Canada recommends when remedial action is taken, the radon levels should be reduced to a value as low as practicable.

For more information please contact:

Canadian Cancer Society, Toll-free: 1-888-939-3333 hello@sk.cancer.ca