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*Your health and  
safety... our priority.*

*Votre santé et votre  
sécurité... notre priorité.*



This information sheet provides information to homeowners on radon. It gives a short overview of the possible **risks to your health**, how radon gets into the home, how you can find out the level of **radon in your home**, and what to do if the amount is above the Canadian guideline.

# RADON

## What you need to know

Canada 

“Radon is a colourless, odourless radioactive gas found naturally in the environment.”



## What is the Risk to you and your family?

Exposure to radon increases the risk of developing lung cancer. This has prompted concern that radon levels in some Canadian homes and buildings may be a health risk. It is estimated that about 10% of all lung cancers worldwide are related to radon exposure.

**“10% of all lung cancers worldwide are related to radon exposure.”**

The level of the risk depends on the amount of radon present, the length of time you are exposed and whether or not you smoke.

Instruments that measure radiation are set to give measurements in scientific units. Radon is measured in becquerels per cubic metre, 1 Bq = 1 radioactive disintegration per second. For example, at a radon level of 200 becquerels per cubic metre ( $\text{Bq}/\text{m}^3$ ) a smoker with 70 years of exposure, has a 17% risk of developing lung cancer compared to 2% for a non-smoker. In comparison, at a radon level of 800  $\text{Bq}/\text{m}^3$  the risk for a smoker increases to 30% and 5 % for a non-smoker.







## What is Radon?

Radon is a colourless, odourless radioactive gas found naturally in the environment. It is produced by the natural breakdown of uranium commonly found in soils and rocks. Because radon is a gas, it can easily move through small spaces in soils and other materials, allowing it to enter the air we breathe, both outdoors

and inside buildings. In the outdoors, radon mixes with large volumes of fresh air and is diluted to low concentrations. However, if radon enters an enclosed or poorly ventilated space in a building, it can accumulate to levels that can pose a risk to health.



## Minimizing Your Risk

Health Canada's studies show that high radon levels are not widespread in Canadian homes. However, radon levels are highly variable and it is difficult to predict the level in any one home. Any home, regardless of age or design, could have a potential radon problem. Therefore, Health Canada encourages Canadians to test their homes.

Generally, radon enters buildings through the foundation and crawl spaces. Increasing the ventilation in the basement to allow an exchange

of air or renovating basement floors and sealing cracks and openings in walls, floors and around pipes and drains may be all that is needed to reduce the radon level in your home. Other methods exist and can be performed by trained contractors, which will further reduce radon levels. The method and the cost to reduce radon in your home depend on the extent of the problem and the design of your home. The costs could range from a few hundred dollars for simple modifications to a few thousand for more substantial repairs.

# The Radon Guideline

In 2007, Health Canada announced a revised guideline for radon levels in indoor air. Based on new research, federal, provincial and territorial governments have worked together to develop a new guideline to help protect Canadians from the health risks associated with radon. The new guideline, is 200 Bq/m<sup>3</sup>, lowered from

the previous guideline of 800 Bq/m<sup>3</sup>. Health Canada recommends that you take action to reduce the level of radon in your home if the level is above the guideline of 200 Bq/m<sup>3</sup>. You can find methods for lowering radon levels in the booklet mentioned below by calling 1-800-668-2642 (Need more Info?).

## How do you find out if Radon Levels in your Home are above the guideline?

First test. Radon testing can be easily carried out by the homeowner using special detectors available from commercial businesses. These devices are simply placed in your home, exposed to indoor air for a specified period of time and then returned to the company to be analyzed.

Other businesses will send a trained technician to your home to do the testing for you. For a list of service providers you may also contact Health Canada at:

Radiation Protection Bureau  
775 Brookfield Road,  
Ottawa, Ontario Canada K1A 1C1  
613-954-6647  
radon@hc-sc.gc.ca

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## Need More Info?

For additional information on radon visit Health Canada's Radon website at:

([www.healthcanada.gc.ca/radon](http://www.healthcanada.gc.ca/radon))

Also, a booklet is available:

Health Canada and the Canada Mortgage and Housing Corporation have produced a booklet called Radon - A Guide for Canadian Homeowners.

For a copy, visit the Canada Mortgage and Housing website ([www.cmhc-schl.gc.ca](http://www.cmhc-schl.gc.ca)) and search for Radon, ([www03.cmhc-schl.gc.ca/b2c/b2c/mimes/pdf/61945.pdf](http://www03.cmhc-schl.gc.ca/b2c/b2c/mimes/pdf/61945.pdf)) or call 1-800-668-2642.