

# RADON



Interior Health

Reduce the risk of lung cancer.  
Test for radon in indoor places:

Homes  
Workplaces  
Businesses  
Schools  
Gathering Places  
Gyms



**ALL INDOOR ENVIRONMENTS**

## WHAT IS RADON?

- Radon is a radioactive gas that you cannot see, taste or smell
- Radon comes from the ground (rocks and soil) and may be found in materials such as gravel used in concrete
- All buildings contain radon and the goal is to get the level to as low as reasonably achievable below guidelines

## IS RADON HARMFUL?

Yes. Radon is the leading cause of lung cancer for people who do not smoke. It is the second leading cause of lung cancer for people who do smoke.

## HOW DOES RADON GET INDOORS?

- Radon enters through rock and dirt, concrete floors and foundation seams; it takes the easiest path into buildings
- Heating and ventilation systems influence radon levels higher or lower depending on adjustments and pressures
- During the cooler months when our windows and doors stay closed, radon can get trapped more easily in our homes increasing concentration

Generally, basements have higher levels of radon because walls and floors are touching soil and rock.

The Interior of B.C. has areas where nearly 60% of the homes test above the Canadian Guideline of 200 Bq/m<sup>3</sup>. Radon levels vary significantly from building to building.

Check the map to find high radon areas in B.C.:  
<https://bccdc.shinyapps.io/bcradonmap/>

## HOW DO I LOWER MY CANCER RISK?

### 01 Lower radon levels

Test for and mitigate high radon levels.

The World Health Organization recommends taking action on buildings with radon levels above 100 Bq/m<sup>3</sup>.

### 02 Lower exposure to radon

It's best to permanently reduce radon levels to as low as reasonably achievable below guidelines and/or limit time spent in buildings with high levels of radon.

For example, if unsure of radon levels, consider minimizing how much time you spend in your basement until a low radon level has been confirmed. Sleep in bedrooms on above-ground levels.

### 03 Lower exposure to tobacco smoke

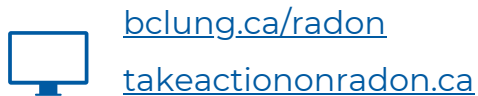
Reducing smoking and exposure to second-hand smoke will reduce your risk of lung cancer. This is especially important if you are unable to reduce the amount of radon that you are exposed to.

Visit [Interior Health's website](#) for more information on tobacco and help to quit smoking.

# WHAT CAN I DO?

## 1 Buy a Radon Detector

Testing is the only way to know your radon level. Test kits are available for purchase online, and at some hardware stores. Libraries may also loan out electronic radon monitors. Long-term kits (91-day minimum) are recommended for best results.



If using electronic monitors, ensure they are credible devices:



## 2 Measure your Radon Level

The best time to test is during the cold months (i.e., November - March).

Set up your long-term radon detector in the lowest level of the building that would normally be occupied greater than four hours per day (e.g., basement).

After 91 days, send the detector to the laboratory for analysis according to your kit's instructions.

### Re-test radon levels:

- After renovations
- After making any energy-efficient changes
- After making mechanical changes or adjustments to your HVAC (heating ventilation air conditioning) or HRV (heat recovery ventilator) systems, potentially changing the air flow, pressure, ventilation, dilution and/or pressure
- To know if your mitigation worked
- Re-test every 3 to 5 years

## 3 Lower your Radon Level

Call a Certified Radon Professional to install a radon mitigation system:



# HOW CAN I LOWER RADON LEVELS?

## Temporary Fixes:

- Open windows and doors to increase air flow-through
- Limit time spent indoors with high radon (generally basements) until permanent fixes are undertaken
- Seal:
  - Basement or crawlspace floors
  - Cracks, joints and openings in foundation walls and floors, and around pipes and drains
  - Openings in the floor slab

## Permanent Fixes:

- Installing an active sub-slab radon mitigation system is the best and most permanent method for reducing radon
- Increase ventilation
- Adjust your HVAC (heating ventilation air conditioning) and/or HRV (heat recovery ventilator) systems to ventilate and pressurize the indoor environment
- Keep drain traps primed and filled with water

**TIP:** Once primed, pour a skim of vegetable oil in the trap to reduce evaporation.

**Remember to re-test to know if your fixes worked.**

Certified Radon Professionals can assist you to test and lower your radon levels.

## FOR MORE INFO:

Visit our [website](#) to find links to other resources including:

[BC Lung Foundation - Radon and Lung Health](#)  
[Canadian - National Radon Proficiency Program \(C-NRPP\): Find a Professional](#)  
[Mike Holmes on Radon \(video\)](#)

[Health Canada](#)

[Take Action on Radon](#)



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