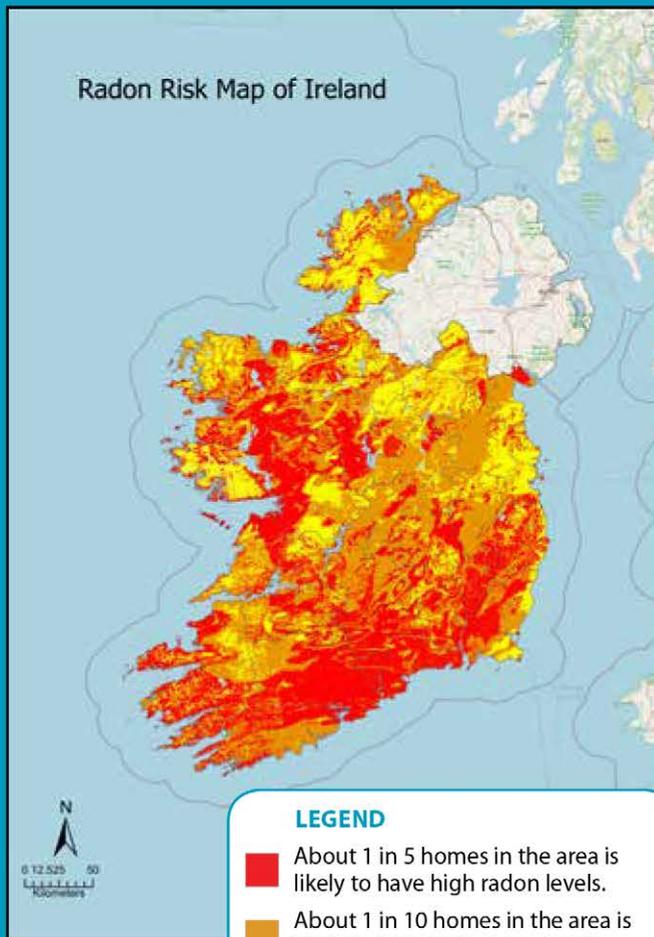


## ARE SOME AREAS IN IRELAND MORE AT RISK FROM RADON THAN OTHERS?

Homes in some parts of Ireland are more likely to have a radon problem. Areas where 10% or more of homes are predicted to have radon concentrations above the reference level (200 Bq/m<sup>3</sup>) are called High Radon Areas. The EPA's radon risk map will tell you if your home is in a high radon area (shown in red). Even if your home is not in a high radon area, it may still have a high level of radon.



### LEGEND

- About 1 in 5 homes in the area is likely to have high radon levels.
- About 1 in 10 homes in the area is likely to have high radon levels.
- About 1 in 20 homes in the area is likely to have high radon levels.

## HOW CAN I REDUCE RADON LEVELS IN MY HOME?

Radon problems in a home can be fixed easily, relatively inexpensively and usually without disruption to the household. Our booklet **Understanding Radon Remediation – A Householder's Guide** will help you learn more about the solutions available and how best to deal with the problem.

The EPA provides a list of registered remediation companies who can advise you about the most suitable solution for your home.

Technical guidance on radon remediation techniques is available from the Department of Housing, Local Government and Heritage in their booklet, **Radon in Existing Buildings – Corrective Options**.



## WHAT IS BEING DONE ABOUT EXPOSURE TO RADON?

Radon gas is the leading cause of lung cancer after smoking and is directly linked to 350 lung cancer cases in Ireland each year. It is a serious public health issue and the Government has a National Radon Control Strategy to tackle the problem. You can read more about the work the Government is doing to protect the population from radon on our website [www.radon.ie](http://www.radon.ie)



**OUR MISSION**  
OUR PURPOSE IS TO PROTECT,  
IMPROVE AND RESTORE OUR  
ENVIRONMENT THROUGH REGULATION,  
SCIENTIFIC KNOWLEDGE AND  
WORKING WITH OTHERS WHILE  
LIVING SUSTAINABLY IN A HEALTHY  
ENVIRONMENT THAT IS VALUED AND  
PROTECTED BY ALL.



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freephone: 1800 300 600



**BORROWING  
A DIGITAL  
RADON  
MONITOR  
FROM YOUR  
LIBRARY**



at Your Library

## WHAT IS RADON?

Radon is a radioactive gas formed in the ground by the radioactive decay of uranium which is present in small quantities in all rocks and soils. You cannot see, smell or taste it and it can only be measured with special detectors.

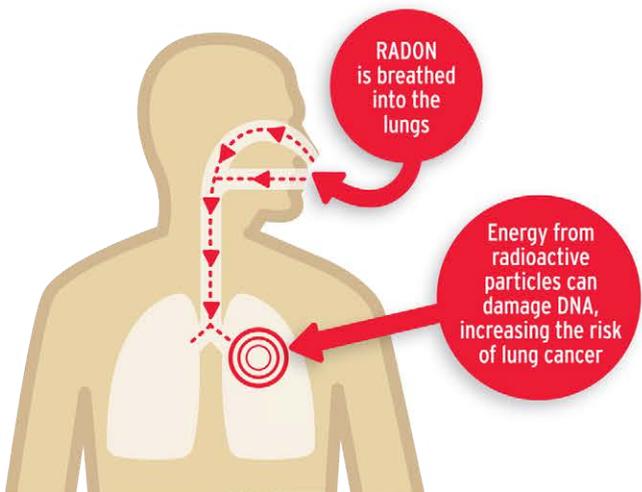
## WHY IS RADON HARMFUL?

Radon can cause lung cancer and is in the same group of carcinogens as asbestos and tobacco smoke. In the air, radon decays quickly to produce radioactive particles. When inhaled, these particles are deposited in the airways and on lung tissue to give a radiation dose that can cause lung cancer. Radon is not linked to other types of respiratory illnesses or other types of cancer.

## WHAT ARE THE RISKS FROM RADON?

Approximately 350 lung cancer cases in Ireland every year can be linked to radon. Of these, over 90% will be in current and ex-smokers. The risk from radon is 25 times greater for smokers than for lifelong non-smokers exposed to the same amount of radon. This is in addition to the lung cancer risk due to smoking itself. Ex-smokers remain at increased risk from radon for a number of years after they have stopped smoking.

**RADON IS ONE OF THE LEADING CAUSES OF LUNG CANCER. SMOKING IS THE MAIN CAUSE.**

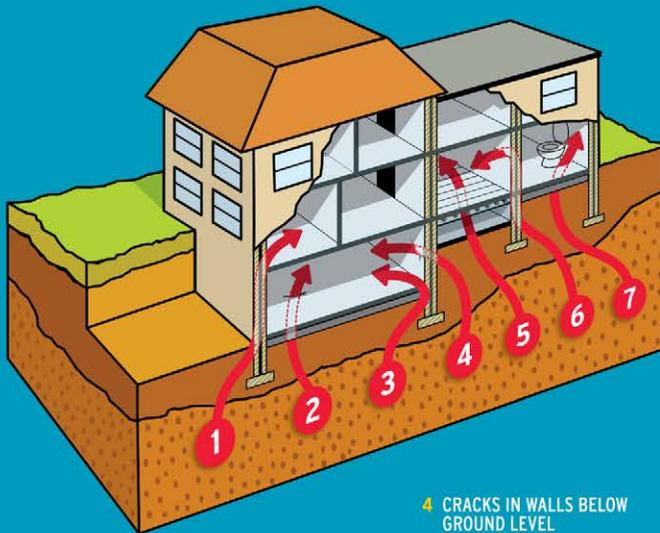


## WHEN IS RADON A PROBLEM?

Radon is measured in becquerels per cubic metre of air ( $\text{Bq}/\text{m}^3$ ). The becquerel is a unit of radioactivity and corresponds to one radioactive disintegration per second. The reference level (or acceptable level) for radon in homes is  $200 \text{ Bq}/\text{m}^3$ . If the radon level in your home is above  $200 \text{ Bq}/\text{m}^3$ , you should carry out remediation work to reduce this level.

## HOW DOES RADON GET INTO HOMES?

Because it is a gas, radon can move through the soil, allowing it to enter buildings – mainly through cracks in floors or gaps around pipes or cables. Indoors, radon can build up to harmful levels. However, outside it is diluted quickly to very low levels. Small amounts of radon can also come from building materials or water supplies, but the main source of radon is the ground your home is built on.



- 1 CAVITIES IN WALLS
- 2 CRACKS IN SOLID FLOORS
- 3 CONSTRUCTION JOINTS
- 4 CRACKS IN WALLS BELOW GROUND LEVEL
- 5 GAPS IN SUSPENDED FLOORS
- 6 CRACKS IN WALLS
- 7 GAPS AROUND SERVICE PIPES

TYPICAL ENTRY ROUTES INTO A DWELLING

## WHAT CAN I USE A DIGITAL MONITOR FOR?

A digital monitor can be used to give an indication of radon levels in your home.

Borrowing a digital monitor from your library will provide you with a quick snapshot in time of your radon levels.

**A reading from a digital monitor is NOT a replacement for a three-month test.**

If you carried out work in your home to reduce radon levels, you may like to borrow a monitor to check that remedial work is successful. A digital monitor can be used to check your radon levels remain low after carrying out remediation work.

## SO HOW DO I TEST MY HOME?

To test your home, you can buy a radon testing kit directly from one of the EPA registered radon testing companies. This costs about €50. Radon detectors are small, round, plastic discs about the size of the palm of your hand. You place one in the living room and one in the main bedroom and leave them for three months.

Radon concentrations vary from day to day depending on changes in weather conditions and the way you ventilate your home. For these reasons, a three month test is required to get an accurate radon result.

After three months, the detectors are returned to the testing company for analysis. You will receive a test report with your results.



## HOW DO I BORROW A DIGITAL RADON MONITOR FROM MY LIBRARY?

You can borrow a monitor for 3 weeks in the same way as you would borrow a book. After this you return the monitor to the library for the next person to borrow it. The digital monitor on loan is portable and very easy to use. It is a handheld, battery operated device with an easy to read display screen.

If you are using a digital monitor for the first time in your home, it is important to remember that the **readings are indicative and are not a replacement for the three month test.**

