



WHAT is Radon?

Radon is a colourless, odourless radioactive gas. It is formed by the radioactive decay of the small amounts of uranium that occur naturally in all rocks and soils.

Why is it a risk to our health?

Radioactive elements decay and emit radiation. Any exposure to radiation is thought to be a risk to health – radiation is a form of energy and can cause damage in living tissues increasing the risk of cancer.

Where is radon found?

Radon is everywhere; formed from the uranium in all rocks and soils. Outdoors everywhere and indoors in many areas the radon levels are low and the risk to health is small. The darker the colour on the radon maps (www.ukradon.org), the greater the chance of a high radon level in a building. However not all buildings, even in the darkest areas, have high levels.

What is a low level?

The amount of radon is measured in becquerels per cubic metre of air (Bq m^{-3}). The average level in UK homes is 20 Bq m^{-3} . For levels below 100 Bq m^{-3} , your individual risk remains relatively low and not a cause for concern. However, the risk increases as the radon level increases.





What is radioactivity and radiation?

Radioactivity is where unstable elements, such as naturally occurring uranium, thorium and radon, break down: energy is released and different elements formed. The new elements may also be unstable so the process is repeated until a stable element is formed. The energy given off is called radiation and can be alpha or beta particles or gamma rays. Alpha particles are more harmful than beta particles or gamma rays. This is because alpha particles contain more energy and are absorbed over a smaller area.

Our exposure to radiation

We are all exposed to radiation from natural and man-made sources. Just 20 Bq m⁻³ (the average radon level in UK homes) gives us half our exposure to radiation from all

sources. Higher radon levels give higher exposures: that is why it is important to find out the levels in your home and in your school or workplace.

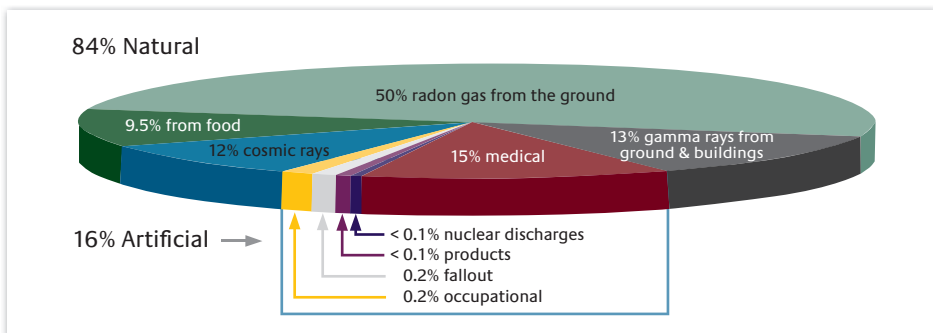
Why is radiation harmful to us?

The radioactive elements formed by the decay of radon can be inhaled and enter our lungs. Inside the lungs, these elements continue to decay and emit radiation, most importantly alpha particles. These are absorbed by the nearby lung tissues and cause localised damage. This damage can lead to lung cancer.

The evidence radon is harmful

Studies in many countries have shown that increased exposure to radon increases your risk of lung cancer.

Average Annual Dose to UK Population



“Radon accounts for half our exposure to radiation from all sources”

Find out more online: www.ukradon.org

