Radon Gas

Radon is a natural radioactive gas which decays into other radioactive species, all of which cause human exposure to radiation.

It comes from the minute amounts of uranium present in all earth materials such as rocks, soils, brick and concrete.

When the radon concentration is high, it does pose a serious risk to your health. Many health studies around the world have linked radon with lung cancer. Radon is the second largest cause of lung cancer - the first being smoking. People who are exposed to high levels of radon are more likely to get lung cancer, more so if they smoke.

Radon is present in all parts of the UK, but in the most populous areas the levels are quite low. Some of the highest levels have been found in the southwest, but levels well above average have been found in some other parts of England and parts of Scotland, Wales and Northern Ireland. However, even in these areas most homes have low levels. To get an idea of the level in your area, please see our radon map below.

Radon levels in homes vary during the day, from one day to the next, and from winter to summer, mainly because of temperature differences between indoors and outdoors. They are generally higher at night and during the winter.

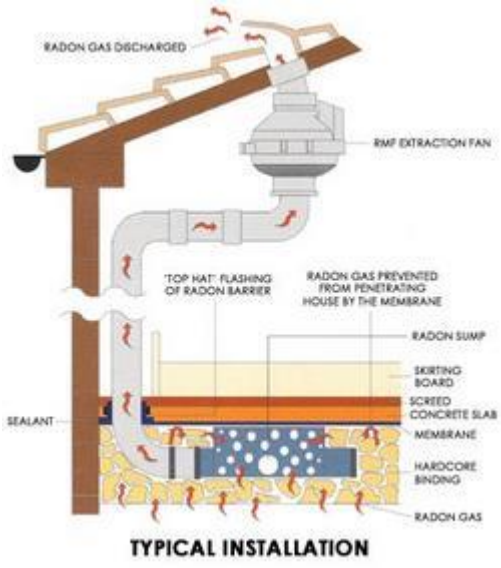
Most water supplies have low levels of radon, but some smaller supplies may be high. None has been found in the UK with high enough levels to cause as much concern as radon from the ground. The Health Protection Agency endorses a proposed European guideline suggesting action if radon levels in private water supplies exceed 1000 becquerels per litre.

What is the action level of Radon?

Radon levels are measured in becquerels per cubic metre (Bqm-3). The National Radiological Protection Board have advised the government that the level of 200Bqm-3 should be considered the action level for dwellings and 400Bqm-3 for workplaces.

How Radon enters the home

Radon enters buildings through small gaps and cracks in the floor and walls formed during construction and subsequent settlement. Radon from the ground is drawn into these cracks and gaps because the atmospheric pressure inside the building is usually slightly lower than the pressure in the soil.



TYPICAL INSTALLATION

Action in the home

There are several tried and tested methods to reduce radon levels in existing homes. The choice of method depends on the radon level and the way your home is built but the 5 most common methods are:

- Install a radon sump system.

- Use positive ventilation in your property.
- Improve ventilation under suspended timber floors.
- Seal gaps and cracks in solid concrete floors.
- Change the way your house is ventilated.

The cost will vary with the type of work carried out. For simple measures, such as making sure airbricks are clear, it could be as little as a few tens of pounds. The average cost of a radon sump (right), the most effective way to reduce high levels, is about £500.00 – £700.00. Of course, if you are able to do the work yourself, the cost will be much less.

Further information

For more information, see the Health Protection Agency's website.