What You Need To Know About Radon And Your Health

For More Information:
S.C. DHEC Radon Toll-free: (800) 768-0362
Radon Website: www.scdhec.gov/radon
Email: radon@dhec.sc.gov

Environmental Protection Agency (EPA) Radon Hotline:
(800) SOS-RADON (767-7236)
Radon Website: www.epa.gov/radon

What Do I Do If I Have A Radon Problem?
Contact a contractor to get an estimate to fix your home. A list of certified contractors for radon measurement or mitigation contractors can be found by contacting DHEC’s Radon Program, or by visiting the American Association of Radon Scientists and Technologists’ National Radon Proficiency Program’s (NRRP) website: aarst-nrpp.com

or the National Radon Safety Board’s website (NRSB): www.nrsb.org.

Retesting For Radon
You should retest your home every 2–5 years or if you make any major changes to the home, such as building an addition, finishing a basement, buying a new heating system or adding central air conditioning.

Radon in Water
Groundwater in some areas of the state may contain high levels of naturally occurring radioactive elements. Public water systems are tested for these elements. If you have your own well, and live in certain areas of the state, you should consider having your water tested. To learn more about areas in South Carolina that may have high levels of radioactive elements, how you can have your well water tested, and treatment methods, see our website at www.scdhec.gov/drinkingwater or call the Bureau of Water at (888) 761-5989.

SURGEON GENERAL’S WARNING: Radon causes lung cancer.

CR-009455    12/16
How Does Radon Get Into Your Home?
Radon, because it is a gas, is able to move through spaces in the soil and into areas of the house that are in contact with the soil. Air pressure in your home is usually lower than pressure in the soil around your home’s foundation. Because of this difference in pressure, your house acts like a vacuum (suction) that pulls radon in through foundation cracks and other openings. Some causes of home vacuum are:
• Heated air rising inside the home (stack effect).
• Wind blowing past a home.
• Air used by fireplaces, wood stoves, and furnaces.
• Air vented to the outside by clothes dryers and exhaust fans in bathrooms, kitchens, or attics (vacuum effect).

How Much Radon In A Home Is Safe?
Any amount of radon carries some risk, even at or below the recommended action level. The risk of lung cancer increases with higher long-term exposures to radon. Because it isn’t possible to reduce radon exposure to zero, the best approach is to lower it as much as possible. Even homes that are built with radon reducing techniques do not guarantee lower levels of radon. Therefore, people must protect themselves from radon exposure in their own home by testing for radon regardless of geographic location, style, age of the home, or the presence of radon reducing techniques.

The following table shows the amount of risk from radon at several different concentrations. These are estimates of lung cancer risk due to long-term exposure to radon. The risk estimates were adapted from the EPA’s Assessment of Risks from Radon in Homes. They show that there is no “safe” level of radon and that risk increases with higher levels of radon. The risk to smokers from radon is significantly higher than for non-smokers.

<table>
<thead>
<tr>
<th>Radon Level</th>
<th>If 1,000 people who never smoked were exposed to this level over a lifetime*...</th>
<th>WHAT TO DO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 pCi/L</td>
<td>About 36 people could get lung cancer</td>
<td>Fix your home</td>
</tr>
<tr>
<td>10 pCi/L</td>
<td>About 18 people could get lung cancer</td>
<td>Fix your home</td>
</tr>
<tr>
<td>8 pCi/L</td>
<td>About 15 people could get lung cancer</td>
<td>Fix your home</td>
</tr>
<tr>
<td>4 pCi/L</td>
<td>About 7 people could get lung cancer</td>
<td>Fix your home</td>
</tr>
<tr>
<td>2 pCi/L</td>
<td>About 4 people could get lung cancer</td>
<td>Consider fixing between 2 and 4 pCi/L</td>
</tr>
<tr>
<td>1.3 pCi/L</td>
<td>About 2 people could get lung cancer</td>
<td>(Reducing radon levels below 2 pCi/L is difficult.)</td>
</tr>
<tr>
<td>0.4 pCi/L</td>
<td>About 3 people could get lung cancer</td>
<td></td>
</tr>
</tbody>
</table>

Note: If you are a former smoker, your risk may be lower.

How Does Radon Get Into Your Home?
Radon, because it is a gas, is able to move through spaces in the soil and into areas of the house that are in contact with the soil. Air pressure in your home is usually lower than pressure in the soil around your home’s foundation. Because of this difference in pressure, your house acts like a vacuum (suction) that pulls radon in through foundation cracks and other openings. Some causes of home vacuum are:
• Heated air rising inside the home (stack effect).
• Wind blowing past a home.
• Air used by fireplaces, wood stoves, and furnaces.
• Air vented to the outside by clothes dryers and exhaust fans in bathrooms, kitchens, or attics (vacuum effect).