

# Radon in granite counter tops



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Radon is the main source of ionizing radiation that most of us are exposed to. Ionizing radiation can harm the cells that make up our body's tissues and organs. The type of radiation that radon produces is mainly an internal hazard – it produces damage when we breathe air that contains radon, often leading to lung cancer.

The Environmental Protection Agency (EPA), the U.S. Dept. of Health and Human Services, the American Lung Association, the National Safety Council, and the World Health Organization (WHO) have all concluded that radon is a known cancer-causing agent in humans. The National Academy of Sciences' Biological Effects of Ionizing Radiation VI report (1998) concluded that radon causes between 15,000 and 22,000 lung cancer deaths each year in this country. A more recent risk assessment from the EPA states radon causes 21,000 premature cancer deaths each year in the U.S. (2003). The Surgeon General of the U.S. warned in a 2005 press release that radon is the second leading cause of lung cancer in the U.S. – second only to smoking. For non-smokers in this country, radon is the number one cause of lung cancer.

Radon kills more people in the U.S. than drunk drivers. In Georgia, an estimated 600 people die each year of radon-related lung cancer.

Radon is not regulated in Georgia, so it is up to each homeowner to decide for themselves how much radon is acceptable in their home. Since it is a radioactive gas, there is no safe level. The good news is that homeowners can act to lower the amount of radon in their homes and reduce the risks to their families.

Radon is an odorless, tasteless radioactive gas – that means it continuously decays and releases radiation. Radon is produced by the natural decay of uranium found in soil and rock all over the U.S. Radon is also a Class A carcinogen.

Radon is a problem in Georgia because of its geology, much of the soil and rock in Georgia contains widespread uranium, especially in the Piedmont area of north and northeast Georgia. Uranium has a long decay chain that eventually breaks down to release radon gas. Therefore much of our state's geology provides an ongoing supply of radon. The Atlanta metro area, including Stone Mountain and counties to the north and east are more likely to have a higher radon reading. However, no area of the state is radon-free. Many homes in Georgia have enough radon to pose a large risk to the occupants' health over many years of exposure. Homeowners can reduce this risk, but they must act.

There is some evidence that some granites used in countertops may contain varying concentrations of uranium which produces radon, however there is too little information and too many variables to generalize about the potential or actual risk. EPA has not done studies on radon in granite counters. The advice that EPA offers to consumers who have granite counters is to test the air in their homes first and mitigate if the result is 4 pCi/L or more.

For more information about radon in countertops, visit [www.epa.gov/radon](http://www.epa.gov/radon) or call Ines Beltran at Gwinnett Cooperative Extension Service at 678.377.4010 or by e-mail at [ines.beltran@gwinnettcounty.com](mailto:ines.beltran@gwinnettcounty.com).