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Unearthing the truth about granite

By Paul F. P. Pogue

Coby and Daine Pearson, of Atlanta, bought granite kitchen countertops in 2006 and say they couldn't be happier — despite warnings that some granite could pose a health risk.

"I think it's highly questionable," Coby says. "There are so many things that may affect you."

Granite countertops have become more prevalent in recent years, according to market research, and could double in popularity by 2016.

However, some researchers and environmental groups such as BuildClean worry that granite could conceal unacceptable levels of radon and other types of radiation.

William Llope, a physicist and researcher at Rice University in Houston, tested more than 60 granite samples from local retailers. He says all of them showed some level of radon above the regular background level, and that a few were hundreds of times higher, which could pose a health risk. Radon is a tasteless, odorless gas that is the second-leading cause of lung cancer in the United States.

"There are so many stones coming from so many countries, including quarries that are right next to uranium mines," he says. "There's no oversight or measurement of these stones."

Of greater concern to Llope is direct, or gamma, radiation from granite. While highly correlated, radon, or beta radiation, and direct radiation are separate issues, he says.

"Only the admixture of uranium ore results in both direct radiation and the long-lived radon that the EPA warns about," he writes on his website, <http://wjlllope.rice.edu/SaxumSubluceo/>. "Natural stone can also contain Potassium-40 and Thorium-232, and these radionuclides and their progeny produce (gamma) radiation that could also potentially be a whole-body health risk."

And while radon can be mitigated by air circulation, direct radiation is not easy to remove.

"If you are in a kitchen with a hot countertop, you are getting a dose," Llope says. "The only mitigation would be to cover the countertop with 6 inches of lead, or to never go in the kitchen."

Llope says that in keeping with scientific procedure, he will not reveal details of

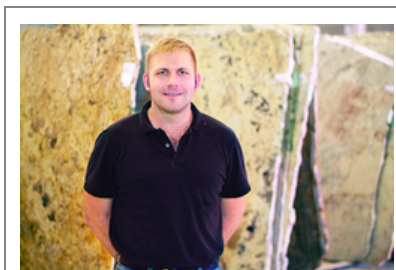


Photo by Ben Webb — Josh Crouch is president of Atlanta Intown Granite and says his product is safe.

his research until it's accepted by a peer-reviewed journal.

The Marble Institute of America, the leading industry group for natural stone materials, says the concerns are overhyped, but does agree that there's enough cause for concern to warrant further testing.

"We want to reassure the public that granite countertops are safe," says Jim Hogan, president of the institute. "We know the vast majority of granites are safe, but there are some new exotic varieties coming in that we've never seen before, and we need to use sound science to evaluate them."

According to MIA spokesman Jim Martinez, new protocols are being developed that will allow testers to use standard methods, including testing granite before it leaves the quarry.

"All the science that's already been done shows that there's no health risk," he says. "Now we're undertaking the largest granite study ever. We want our consumers and the people who work with these materials to be safe."

Steve Tucker of Cascade Radon, a highly rated radon tester and home contractor in Portland, Ore., says he's never seen a countertop in 30 years that posed a problem. "If you're concerned about radon, you should be testing your house as a whole, because a countertop is the least of your worries," Tucker says. "The biggest concern is the soil under the house."

The Environmental Protection Agency does not believe sufficient data exists to conclude granite countertops pose a health risk. The EPA says it'll continue to monitor research, and in the meantime, recommends all homes be tested for radon, whether or not they have granite countertops.

Coby Pearson says she'll keep her countertop for its beauty and durability. "We haven't had any serious health problems, and this isn't our first time owning a granite countertop," she says.

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