

wellcare® information for you about

# RADIUM & WELL WATER

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## What is Radium?

Radium is a radioactive metal that occurs naturally in our environment. Uranium and thorium are found in small amounts in most rocks and soil. As they break down, radium is formed. The two main types of radium are radium-226 and radium-228.

Radium has been used in cancer radiation treatment, in metal radiography, and combined with other metals as a neutron source for calibrating radiation instruments. Radium was also once in the paints used for watch and clock dials, airplane instrument panels, military instruments, and compasses.

## What are the health effects of Radium?

Exposure to high levels of radium has been shown to increase your risk of anemia, cataracts, broken teeth, and bone, liver, and breast cancer. The Environmental Protection Agency (EPA) standard for drinking water is 5 picocuries per liter (pCi/L) for the combined total of radium-226 and radium-228. Well owners are encouraged to use this level as a guideline for when well water should be treated. If your state has a lower maximum level for radium in drinking water, this level supersedes the EPA level and should be used in its place.

Radium is not absorbed through the skin. Therefore, showering or bathing with water that contains radium does not pose a health risk. If you suspect contamination or experience illness, stop drinking and cooking with the water immediately and do not resume until testing has proven it to be safe to use. Always seek advice from your medical doctor if you have any health concerns.

## How do I test for Radium?

Your water should first be analyzed for radioactivity with a short-term gross alpha activity test. This screening test is less expensive than direct analysis for radium. If gross alpha activity is found, further testing for radium is warranted. Contact your state or local health department for a list of state-certified laboratories in your area or use [our interactive map](#).

## What are the treatments for Radium in well water?

Common treatments used for reducing radium in water are ion exchange, lime softening, and reverse osmosis. For some people, an undesired result of ion exchange is the addition of sodium to the treated water. Individuals on low sodium (salt) diets should consider this before installing a softener. Contact a certified water treatment professional for guidance. To locate a certified water treatment professional in your area, visit [WQA's](#) website. Treatment systems should be certified by NSF or Water Quality Association (WQA) when available. To find treatment systems that are certified visit [NSF](#) or [WQA](#) websites. It is necessary to maintain treatment devices as specified by the manufacturer or your water treatment professional. You should also retest your water after treatment is installed and after maintenance to confirm the effectiveness of the device.

## For More Information on Radium & Well Water

Contact your licensed well contractor, local health department, state environmental agency, or the [wellcare®](#) Hotline.



## Information to help maintain and protect your water well system:

[wellcare®](#) is a program of the [Water Systems Council \(WSC\)](#). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 [wellcare®](#) information sheets available FREE at [www.watersystemscouncil.org](http://www.watersystemscouncil.org).

Well owners and others with questions about wells and well water can contact the [wellcare®](#) Hotline at 1-888-395-1033 or visit [www.wellcarehotline.org](http://www.wellcarehotline.org) to fill out a contact form or chat with us live!

## JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE [wellcare®](#) Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit [www.wellcarehotline.org](http://www.wellcarehotline.org) to join!