What is Barium?

Barium is a silvery-white metal which exists in nature in ores containing mixtures of elements. These ores are most commonly found in AK, AR, CA, GA, KY, MO, NV, and TN. Barium combines with other chemicals such as sulfur or carbon and oxygen to form barium compounds.

Barium is used in making a wide variety of electronic components, in metal alloys, bleaches, dyes, fireworks, ceramics, and glass. Barium is also used by the oil and gas industries to make drilling mud that may be released directly into the ground.

Barium sulfate is sometimes used by doctors to perform medical tests and take x-rays of the gastrointestinal tract.

What are the health effects of Barium?

The EPA sets a maximum limit for barium in public drinking water supplies to 2 parts per million (ppm). 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 barium in drinking water, this level supersedes the EPA level and should be used in its place.

When people are exposed to barium for short periods at levels above the maximum contaminant level, they may experience gastrointestinal disturbances and muscular weakness. Barium has the potential to cause high blood pressure when exposed to levels above the maximum contaminant level for long periods of time.

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 Barium?

If you are concerned about barium in your water supply, you should have your water tested. 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 Barium in well water?

Barium can be removed from drinking water through the following treatment methods: ion exchange, reverse osmosis, lime softening, and electrodialysis. 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. Contact a certified water treatment professional for guidance. To locate a certified water treatment professional in your area, visit WQA’s website.
For More Information on Barium & 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.

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 to fill out a contact form or chat with us live!

JOIN THE WELLCASE® 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 to join!