

wellcare[®] information for you about

BENZENE & WELL WATER

What is Benzene?

Benzene is a chemical that is a colorless or light-yellow liquid at room temperature. It has a distinctive sweet odor and is highly flammable. Benzene can be naturally found in volcanoes, forest fires, crude oil, gasoline, and cigarette smoke. This chemical is used in some industries to make other chemicals that are used to manufacture some types of plastics, synthetic material, rubber, dyes, and pesticides. Benzene is also used as a solvent in processes such as printing and dry cleaning.

Benzene can be released into water, soil, and air in many ways. Some of which include automobile emissions, industrial discharges, improper disposal of products, and gasoline leaks from underground storage tanks. Benzene breaks down very slowly in water and soil, as a result, it passes easily through soil into groundwater sources. It would take only one ounce of benzene to contaminate over 1.6 million gallons of drinking water.

What are the health effects of Benzene?

When inhaled in high levels, benzene affects the central nervous system, causing headache, dizziness, drowsiness, confusion, and nausea. If ingested at high levels, benzene can cause vomiting, dizziness, irritation of the stomach, and convulsions. Long-term exposure to benzene, a known carcinogen, can lead to anemia, weakening of the immune system, and leukemia. Benzene can also be absorbed by the skin through contact with gasoline, other solvents, or through bathing/showering in water that contains benzene levels higher than 0.1 parts per million (ppm).

The U.S. Environmental Protection Agency (EPA) limits concentrations of benzene in drinking water to a maximum contaminant level (MCL) of 0.005 ppm, with a goal of 0 ppm. 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 Benzene?

Research has shown that most people can smell benzene in the air at concentrations of 1.5 to 4.7 ppm and taste it in water at concentrations of 0.5 to 4.5 ppm. If you suspect benzene may be present in your drinking water, contact your state or local health department for a list of state-certified laboratories in your area or use [our interactive map](#). Report any test results that exceed the EPA's MCL to your local health department. They will be able to investigate the source of the contamination and determine if other water wells are contaminated in the vicinity.

What are the treatments for Benzene in well water?

Treatment for benzene is a granular activated carbon (GAC) filter system used in combination with packed tower aeration. 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 Benzene & 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 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 to join!