

wellcare® information for you about Lead & Well Water

What is Lead?

Lead is a highly toxic dull gray metal that is soft enough to be easily scratched with a house key. Lead can get into your water as it flows through your plumbing system. Corrosion can cause lead to leach from lead pipes, lead-based solder pipe joints, and brass alloy faucets. Low pH (acidity), low mineral content, and high salt content in water are common causes of corrosion.

Lead pipes were used in water systems until the early 20th century. However, lead-containing solder, service lines, and plumbing components continued through the mid 1980's. In 1986, these were banned from new plumbing systems, but they remained in drinking water infrastructure and homes throughout much of the country.

To help further reduce the risk of lead contamination in homes and drinking water across the U.S., effective January 4th, 2014, the new Federal Public Law 111-380-Jan. 4, 2011, an amendment to the Safe Drinking Water Act and commonly known as "Reduction of Lead in Drinking Water Act" states the maximum allowable lead content in "lead-free" pipes, pipe or plumbing fittings, fixtures, solder, or flux intended to convey or dispense water for human consumption through drinking or cooking is as follows:

- **Maximum 0.2 % lead in solder and flux**
- **Maximum 0.25 % lead in wetted surfaces** of pipes, pipe fittings, plumbing fittings and fixtures, as determined by a weighted average.

For more information on the new lead regulations, refer to our wellcare® information sheet [Reduction of Lead in Drinking Water Act](#).

What are the health effects of Lead?

At a minimum, The U.S. Environmental Protection Agency (EPA) reports that the health effects of lead are most severe for infants and children. Exposure to high levels of lead in drinking water can result in delays in physical or mental development. For adults, it can result in kidney problems or high blood pressure. Although the main sources of exposure to lead are ingesting lead paint chips and inhaling lead dust, EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 to 60 percent of their exposure to lead from drinking water.

While EPA does not regulate lead in private household water systems, the agency requires public water systems to take action to reduce corrosivity of water if more than 10 percent of tap water samples exceed 15 parts per billion (ppb). EPA also sets a Maximum Contaminant Level Goal (MCLG) for lead in drinking water at zero. MCLGs allow for a margin of safety and are non-enforceable public health goals. Well owners should follow these standards.

If you suspect contamination or experience illness, stop drinking or cooking with the water immediately, and do not resume use until testing has proven it to be safe. Always seek the advice of your medical doctor if you have any health concerns.

How do I test for Lead?

You cannot see, taste, or smell lead in water. Testing is the only way to know if lead is in your drinking water. You should be concerned if your home was built before 1986, has non-plastic plumbing, or if you see signs of corrosion (frequent leaks, rust-colored water, or blue/green staining). Your licensed well contractor, plumber, or local health department may also have useful information, including whether the connections used in your home or area contain lead. Additional water tests may be recommended with the lead test like copper, hardness, pH, and salts.

To find out what to test for and to obtain a list of certified laboratories in your area contact the wellcare® Hotline at 1-888-395-1033, your local health department, county extension office, or use our [interactive map](#).

A few tips if you suspect lead in your drinking water or have a positive lead test:

- Do not consume water that has been in contact with your home's plumbing for more than six hours, such as overnight or during your workday. Before using water for drinking or cooking, "flush" the cold-water faucet by allowing the water to run until you can feel that the water has become as cold as it will get. You must do this for each drinking water tap. Taking a shower will not flush your kitchen tap. Flushing is important because the longer water is exposed to lead pipes or lead solder, the greater the possibility of lead contamination. The water that comes out after flushing will not have been in extended contact with lead pipes or lead solder.

Don't waste the water that was flushed, usually one to two gallons. Use it for non-consumptive purposes, such as washing dishes or clothes or watering plants.

- Do not cook with or consume water from the hot water tap. Hot water dissolves lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove or in the microwave. Use only thoroughly flushed water from the cold tap for any consumption.

What is the treatment for Lead in well water?

Well owners can treat their water to make it less corrosive. There are also several treatment devices available to reduce lead in drinking water such as activated alumina, carbon filtration, cation exchange, distillation, and reverse osmosis. Contact a certified water treatment professional to help select the best treatment for your water system. To locate a certified water treatment professional in your area [visit Water Quality Association's website](#). Water treatment devices should be certified by [Water Quality Association](#) or [NSF International](#). Verify lead treatment claims by researching the product on those websites.

It is important to maintain treatment devices and change filters as specified by the manufacturer. You should also retest your water after treatment is installed and after maintenance to confirm the effectiveness of the device.

The most effective, but also most expensive way to remove lead is by replacing plumbing and components with plastic. PEX and PVC are commonly used in household plumbing. Contact your licensed plumber to discuss options.

FOR MORE 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 more than 13 million households nationwide who depend on private wells.

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!