

Frequently Asked Questions

1. What is Lead?

Lead is a toxic metal that was used for many years in products found in and around homes. Even at low levels, lead may cause a range of health effects including behavioral problems and learning disabilities. Children six years old and under are most at risk because this is when the brain is developing. The primary source of lead exposure for most children is lead-based paint in older homes. Lead in drinking water can add to that exposure.

2. What are the uses for lead?

Lead is sometimes used in household plumbing materials or in water service lines used to bring water from the main to the home. A prohibition on lead in plumbing materials has been in effect since 1986. Effective January 4, 2014, the federal Lead Contamination Control Act required only “lead-free” products can be introduced into commerce and installed into the drinking water systems”. The new definition of “lead-free” states the amount of lead that can be in material in contact with drinking water to a weighted average of the wetted surface not to exceed 0.25%.

3. What are lead’s health effects?

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

4. What are EPA’s drinking water regulations for lead?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur with an adequate margin of safety. These non-enforceable health goals, based solely on possible health risks are called maximum contaminant level goals (MCLG). The MCLG for lead is zero. EPA has set this level based on the best available science which shows there is no safe level of exposure to lead. For most contaminants, EPA sets an enforceable regulation called a maximum contaminant level (MCL) based on the MCLG. However, because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, EPA established a treatment technique rather than an MCL for lead. A treatment technique is an enforceable procedure or level of technological performance which water systems must follow to ensure control of a contaminant. The treatment technique regulation for lead (referred to as the Lead and Copper rule) requires water systems to control the corrosivity of the water. The regulation also requires systems to collect tap samples from sites served by the system that are more likely to have plumbing materials containing lead.

5. How does lead get into my drinking water?

The major sources of lead in drinking water are corrosion of household plumbing systems; and erosion of natural deposits. Lead enters the water (“leaches”) through contact with the plumbing. Lead leaches into water through corrosion – a dissolving or wearing away of metal caused by a

chemical reaction between water and your plumbing. Lead can leach into water from pipes, solder, fixtures and faucets (brass), and fittings. The amount of lead in your water also depends on the types and amounts of minerals in the water, how long the water stays in the pipes, the amount of wear in the pipes, the water's acidity and its temperature.

Although the main sources of exposure to lead are ingesting paint chips and inhaling dust, EPA estimates that 20 percent or more 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.

6. How will I know if lead is in my drinking water?

Have your water tested for lead. Testing costs between \$20 and \$100. Since you cannot see, taste, or smell lead dissolved in water, testing is the only sure way of telling whether there are harmful quantities of lead in your drinking water. You should be particularly suspicious if your home has lead pipes (lead is a dull gray metal that is soft enough to be easily scratched with a house key) or if you see signs of corrosion (frequent leaks, rust-colored water). Your water supplier may have useful information, including whether the service connector used in your home or area is made of lead. Testing is especially important in high-rise buildings where flushing might not work. If your water comes from a household well, check with your health department or local water systems that use groundwater for information on contaminants of concern in your area.

7. How can I reduce lead in drinking water at home?

Flush your pipes before drinking, and only use cold water for consumption. The more time water has been sitting in your home's pipes, the more lead it may contain. Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until it becomes as cold as it will get. This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer. Your water utility will inform you if longer flushing times are needed to respond to local conditions.

Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

8. Who is my water supplier?

Your water supplier is listed on your water bill. If you do not receive a water bill, ask your Housing Management or HOA who supplies your water.

9. How are lead samples taken?

Lead samples are taken at the highest risk sample sites based on year of construction and during the warmest months of the year when the highest lead levels are expected to occur. Samples are collected from a kitchen or bathroom tap after the water has stood in the pipes

(highest potential for drawing lead from the piping system) for at least 6 hours (no flushing or showering).

10. What does 90th percentile mean?

There is no maximum contaminant level (MCL) for lead. Compliance with Lead samples is determined by comparing the 90th percentile result with the Action Level (AL) of 0.015 mg/L. The 90th percentile is a statistical calculation. For example, If a system has taken 10 lead samples, the 9th highest result would be their 90th percentile result. If the 90th percentile result is greater than the Action Level, then the system will be required to complete corrective actions.

11. What happens if the 90th percentile result exceeds the Action Level?

After an Action Level exceedance, the system must conduct corrosion control treatment steps, conduct source water monitoring and install source water treatment (if needed), deliver public education that informs users about the health effects of lead, and must replace lead service lines if the lead action level is still exceeded after installing treatment. This system is taken off of a reduced monitoring schedule and must sample more frequently.

12. When is public education is required?

Public Education is required for a confirmed Action Level Exceedance. This must include information about the health effects, sources of lead, tips on reducing exposure, as well as explain what corrective steps the system is taking. As of the latest rule revision in 2012, water systems are required to notify the residence sites (where the sample was drawn from) of the results at that site. Additionally, the annual Consumer Confidence Report outlines the lead levels in the system and provides specific language about the health effects of lead.

13. How do I learn more about lead and my drinking water?

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone book's government listings are a good starting point for local information.

Contact your water utility. EPA requires all community water systems to prepare and deliver an annual consumer confidence report (CCR) (sometimes called a water quality report) for their customers by July 1 of each year. If your water provider is not a community water system, or if you have a private water supply, request a copy from a nearby community water system.

14. How can I reduce my family's exposure to lead in tap water.

- Running cold water from the faucets for drinking can improve water quality by drawing fresh water into the home, particularly after long periods of time when water has not been used. The amount of time you should run the cold water to flush your internal plumbing depends on whether you have a lead service line, the length of the lead service line, and the amount of plumbing in your home.

- The most important time to flush is after long periods of no use, such as first thing in the morning, after work, or upon returning from vacation.
- To conserve water, other household water usage activities such as showering, washing clothes, flushing the toilet and running the dishwasher, are effective methods for flushing pipes and allowing water from the distribution system to enter household pipes.
- Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- Contact your water supplier or your City to obtain a copy of the annual Consumer Confidence Report.
- If you live in an area served by older water systems, check with your water supplier to see if they have lead pipes or service lines and if they have been replaced partially or in whole. In many lead service line replacements, replacement will only have been to the meter and there may be lead service lines after the meter and lead pipes within the building. To determine if your property has a lead service line or lead pipes, hire a licensed plumber to inspect the service line and replace all lead pipes.
- When purchasing replacement plumbing products, make sure the products have been tested and certified to “lead-free” standards.
- If your system has elevated levels of lead, do not boil water to remove lead. Boiling water will not reduce lead.