Lead and Your Water

Frequently Asked Questions

What is lead?

Lead is a common metallic element in nature and can be found in air, soil, and water. It is also a powerful toxin that is harmful to human health. Lead was commonly used in gasoline and paint up until the 1970s and is still sometimes found in products such as ceramics, batteries, ammunition, and cosmetics. Lead was used for centuries in plumbing because of its pliability and resistance to leaks; in fact, lead's chemical symbol, Pb, is derived from the Latin word for plumbing. In 1986, lead pipes were banned in the United States and plumbing materials were required to meet federal "lead-free" specifications.

Why is lead a health risk?

Lead is a toxic metal that can cause immediate effects at high doses and long term effects if it builds up in the body over many years. Lead can cause brain and kidney damage in addition to effects on the blood and vitamin D metabolism. Young children are particularly vulnerable because the physical and behavioral effects of lead occur at lower exposure levels in children than in adults. In children, low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells. While people are more commonly exposed to lead through paint, soil and dust, U.S. EPA estimates infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

How do I know whether my drinking water contains lead?

Because it is colorless and tasteless, lead is not readily apparent in water. In fact, the only way to know for certain whether your drinking water contains lead is to have your water tested by a certified laboratory. Contact your water provider to find options available in your community.

How does lead get into drinking water?

Lead is almost never present when water flows from the treatment facility, nor is it present in the water mains running beneath the streets. However, in some older homes lead may be present in the pipe connecting the home to the water system – known as a service line -- or in the home plumbing. Lead in service pipes or plumbing can dissolve or break off into water and end up at the tap.

How much lead in water is too much?

Lead can be harmful even at very low levels and can accumulate in our bodies over time, so wherever possible steps should be taken to reduce or eliminate your household's exposure. While risks vary based on the individual, circumstances and the amount of water consumed, no concentration of lead is considered "safe." Households with pregnant women, infants, or young children are most vulnerable to the harmful effects of lead at low levels.

What can I do to reduce or eliminate lead from my drinking water?

The best way to remove risks of lead in water is to completely replace all sources of lead. But there are also steps you can take right away.

1. *Run the Tap Before Use* – Lead levels are likely at their highest when water has been sitting in the pipe for several hours. Clear this water from your pipes by running the cold water for several minutes– which allows you to draw fresh water from the main. Your water provider or certified plumber can help you assess the right length of time. You can use this water on house plants or to flush toilets.

2. *Clean aerators* – Aerators are small attachments at the tips of faucets which regulate the flow of water. They can accumulate small particles of lead in their screens. It's a good idea to remove your aerators at least monthly and clean them out.

3. *Use Cold Water for Cooking* – Always cook and prepare baby formula with cold water, because hot water dissolves lead more quickly, resulting in higher levels in water.

4. *Filter the Water* – Many home water filters are effective at removing lead. If you purchase a filter, make sure it is certified for lead removal and that you maintain it properly. Find out more on filter certification at www.nsf.org.

Are there special steps I should take to protect my infant, developing baby or young children?

Households with pregnant women, infants or young children should be especially aware of the potential for lead exposure through drinking water. If you suspect there may be lead in your home plumbing, consider having your water tested at a certified laboratory. If lead is detected, consider purchasing a filter certified for lead removal or using an alternate source of water until the problem is corrected. Babies and young children are most vulnerable to the harmful effects of lead at low levels. U.S. EPA estimates infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

Is it safe to shower in water that contains lead?

Because lead is not absorbed through the skin, bathing or showering in water containing lead is not considered to pose a health risk.

What does my utility do to protect my household from lead?

In order to prevent lead from dissolving into water from lead service lines or home plumbing, water providers adjust the water's chemistry at the treatment plant. This process is known as corrosion control. Water providers sample water at homes considered to be high risk in order to ensure the corrosion control remains effective. Although corrosion control can reduce risks, the best way to assure your home is safe from lead exposure through water is to remove the potential sources of lead.

How do I know if my home has a lead service line or lead plumbing?

You can hire a certified plumber to inspect both your service line and other materials in contact with your drinking water. Your utility may also be able to assist you by providing information on the timeframe when lead materials were used in your community.

You may be able to determine on your own if your service line is made of lead. Service lines typically enter the home in the basement or crawl space. If the pipe is lead, it will have a dull finish that shines brightly when scratched with a key or coin. Using a magnet can also help you identify a lead pipe, because even a strong magnet will not cling to lead.

Who owns the lead service line?

Ownership of lead service lines varies by community. In most places, lead service lines are owned by the water utility up to the customer's meter, and the rest of the line is owned by the property owner. Replacing the entire lead service line is therefore a shared responsibility between the utility and each customer. Contact your water provider for information on service line ownership in your community and replacement options.

I'm in a new house. Am I at risk?

In 1986, lead pipes were banned in the United States and plumbing materials were required to meet federal "lead-free" specifications, so people in older homes are at higher risk. Your water provider may be able to give you more information about lead use in your community. You can also hire a certified plumber to inspect your pipes, solder and fittings.

Do all home filters and other water treatment devices remove lead?

No. If you purchase a water filter or home treatment device, make sure it is independently certified for lead removal and that you maintain it properly. Find out more on filter certification at www.nsf.org.

Can my pets drink water with lead?

Lead can impact animals the same way it does humans. Because domestic animals consume a relatively high volume of water relative to their body weight, pet owners with lead in their home plumbing may want to take precautions.

Is water the only source of lead in homes and businesses?

No. In fact, lead in drinking water generally represents only about one-fifth of total exposure, according to the U.S. Centers for Disease Control and Prevention. However, drinking water can account for more than half of lead exposure in children because of their lower body weight. Additionally, because no level of lead is considered safe, completely eliminating potential sources of lead is strongly advised.