What is lead and how does it get into your drinking water?

Lead is a naturally occurring metal which has been used in a wide variety of products including drinking water service lines and plumbing materials. Service lines are the pipes that bring water from the provider to your house. Lead service lines were common in the U.S. until the mid 1950s. The Safe Drinking Water Act of 1974 intended to protect the quality of drinking water and ultimately banned the use of lead in pipes, solder and other plumbing materials in 1986. However, lead pipes installed previously, still exist. Lead in drinking water typically occurs because these lead-containing pipes and plumbing materials corrode over time.

How can I find out if lead is in my drinking water?

Contact your water provider
If you receive a water bill, you are connected to a public drinking water system. If your water bill is included in association dues, contact the manager to determine which public water system provides your water. Contacting your water provider is a good first step as they may have important information and resources to help you determine the level of lead in your water.

Have your water tested
Testing is the only way to know whether your water contains lead. You cannot see, taste or smell lead in drinking water. Testing is important if your home has lead pipes, lead-containing fixtures or lead solder. Often, your water provider or local health department will be able to provide assistance with testing your water. If not, you should contact a certified lead testing laboratory in your area. A list of certified labs is posted on our webpage below.

Who is most at risk?
Babies and young children are more vulnerable to lead than adults. This is because their smaller bodies need to eat, drink and breathe more often. Because they spend the majority of their time on the floor or ground, they may eat or breathe-in more dirt or dust than an adult. Any dirt or dust ingested that contains lead then enters their blood and can affect their rapid growth and development. All Medicaid eligible children are required to receive a lead test at 12 and 24 months old.

If my baby drinks formula, are they at higher risk?
Yes, they are especially vulnerable to lead in drinking water because tap water is used to make up 90% of their diet. If you know you have elevated lead and do not have a lead reducing filter, use bottled water to make your baby formula and to wash their bottle. If you are eligible for WIC services, and are interested in already-made formula that has water without lead, please call your local WIC clinic.

What are the health effects?
Lead builds up in the body over time, so ongoing exposure, even at low levels, may eventually cause health effects. Exposure to lead can result in high blood pressure in adults, delays in children’s physical or mental development, lower birth-weight babies and kidney problems. If you are concerned about your child’s exposure you can have their blood tested. Please contact your health provider to learn more about blood lead testing, or for more information please visit: https://cdphe.colorado.gov/lead-testing

For more information and resources on lead, visit our webpage: colorado.gov/cdphe/lead-drinking-water
Learning about lead in your drinking water

Simple tips if you have lead in your water:

Use a water filter or a home water treatment device.
Many (but not all) water filters and water treatment devices are certified by independent organizations for effective lead reduction. Verify the claims of manufacturers by checking to make sure that filters are listed as NSF International standard 42 and 53. This includes checking your refrigerator if it has a water dispenser. Look for certified drinking water treatment units by searching for lead in drinking water at www.nsf.org. We recommend purchasing a filter that removes lead, but not fluoride which helps prevent tooth decay. Check with the manufacturer.

If you do not have a water filter or treatment device:

Let your water run before drinking.
If it has not been used for several hours, run the cold water tap until the temperature is noticeably colder. Sometimes it can take two minutes or longer. This flushes lead-containing water from the pipes.

Always use cold water for drinking and cooking.
Never cook or drink water with water from the hot water tap. Hot water can be more corrosive and possibly lead from your home plumbing can get into the water.

Boiling water will not remove lead.
Do not boil water to try and remove lead from your drinking water. Boiling results in evaporation of some water, but leaves the lead behind. There is less water, but the same amount of lead is still present.

Periodically remove and clean the faucet’s strainer/aerator.
While removed, run water to remove debris.

Use bottled water.
Not all bottled water has been tested for lead and other contaminants. If you choose to use bottled water, you should verify that the water has been tested and does not contain lead (NSF International).

Do not drink water without taking the steps above, even to brush your teeth.

Here is what you should and shouldn’t do if you have high levels of lead in your water:

- Lead poisoning in animals is rare. If you are concerned, use filtered or bottled water. Check with your veterinarian if you have questions.
- Use filtered or bottled water to wash fruits and vegetables, especially for lettuce, cilantro and other leafy produce.
- Use filtered or bottled water to cook items that needs a lot of water like soup, rice, pasta, hot cereal, beans, coffee, tea, and frozen juice concentrate.
- Taking a bath or showering in water that has lead is safe. Human skin does not absorb lead in water and little remains after washing.
- Washing dishes, utensils, tables, bedding, and clothes with water that has lead is safe because very little water stays on the item.
- Properly wash, and if possible peel, all veggies and fruits from a home garden. Don’t let children eat the soil because there can be high levels of lead in dirt.

For more information and resources on lead, visit our webpage: colorado.gov/cdphe/lead-drinking-water