

# Lead

## PREVENTING LEAD IN DRINKING WATER

*Quality Service  
Since 1939*

MSUD is committed to providing our customers with safe and reliable drinking water.

This includes testing for lead and other potential contaminants and constantly improving our treatment methods to ensure the highest quality water.

### What is lead?

Lead is a naturally occurring metal that is harmful if inhaled or swallowed. Lead can be found in air, soil, dust, food, and water.

### How can I become exposed to lead?

The most common source of lead exposure today is from paint in homes and buildings built before 1978. Lead-based paint chips and dust are the primary source of lead poisoning in children.

Lead can also be found in household plumbing materials and contaminate drinking water. The EPA estimates up to 20 percent of human exposure to lead is due to water.

### How can lead get into my drinking water?

Lead has not been detected in the water leaving the Treatment Plant or in the water in the distribution system. Lead has been detected coming from inside some homes, but at very low levels. It is the corrosion of pipes inside homes that leaches the most lead into drinking water.

The amount of lead in water depends on several things; most importantly how corrosive the water is, how long the water stays in the pipes, and water temperature.

Lead often comes from lead service lines, lead solder used to join copper piping, and brass fixtures.

The use of lead service lines was banned in the 1980s and lead solder used on copper piping was banned in 1986. **If your home was built in 1987 or after, chances are your home plumbing does not contain lead.**

Sometimes lead can be redeposited onto galvanized pipe or in your hot water heater and leach out again later. See the picture below for some ideas.

### How does MSUD protect me from lead?

To help protect the pipes in your home from corrosion MSUD adds a mineral blend to prevent lead and other harmful metals from leaching from your home plumbing. This is a very important step in protecting consumers from lead.

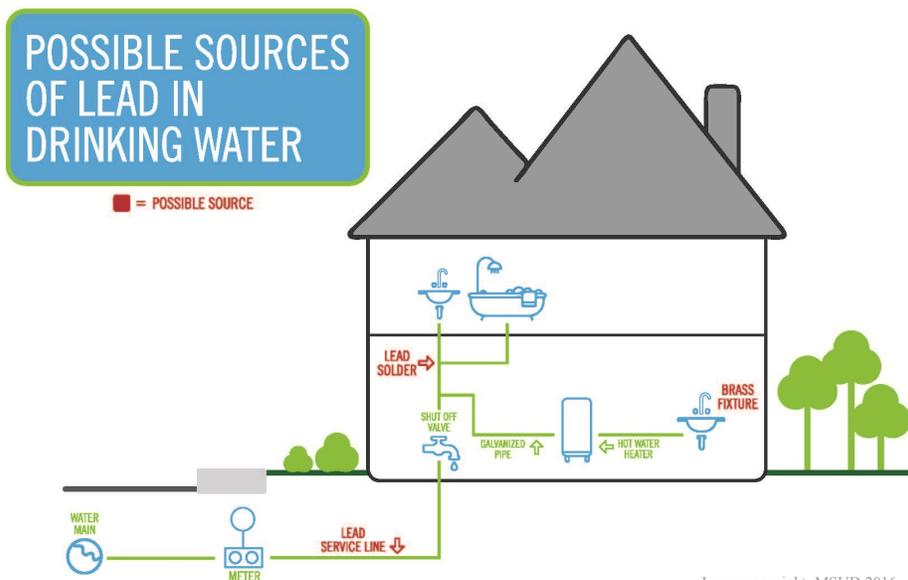
We also lower the acidity of our water and frequently measure the corrosive potential to ensure it is being treated properly. This ensures a problem cannot develop unawares.

### Are we in compliance with the rules?

Yes. MSUD has been in full compliance with the Lead and Copper Rule, as issued by EPA, since its promulgation in 1991.

We sample for lead every three years in accordance with the Rule.

To get testing results see our Annual Water Quality Report on our website, [msud.net](http://msud.net), or call the Water Quality Department at 615-865-1636.



### For more Information

**Water Quality Compliance Department**  
615-865-1636  
[waterplant@msud.net](mailto:waterplant@msud.net)

**See our website:**  
[msud.net](http://msud.net)

**For more information on lead in drinking water visit:**  
[drinktapp.org](http://drinktapp.org)

**Or contact the EPA:**  
EPA Hotline:  
1-800-426-4791  
Visit: [www.epa.gov/lead](http://www.epa.gov/lead)

## Is my home at risk?

The diagram on the front page can help identify areas of your home where water may become contaminated with lead.

It is important for homeowners to know what types of materials you have in your home. Lead pipes are a dull grey color, and can be easily scratched with a key. Lead pipes often have a bulb shaped connection. Galvanized pipes are also gray colored but will be attracted to magnets, where lead pipes will not be.

If you are unsure what materials you have in your home have a Licensed Plumber (<http://verify.tn.gov>) check it out for you.

Lead levels are more likely to be higher if:

- Your home has a lead service line or copper pipes with lead solder
  - Your home was built before 1986
- AND
- Water sits in your pipes undisturbed for several hours



Key scratch on lead pipe.  
(photo courtesy of US EPA Region 5)

## Will electrical grounding increase my lead levels?

Possibly. If grounding wires from electrical systems are attached to household plumbing, corrosion and lead exposure may be greater.

## Service Line Replacement

The service line is the pipe that runs from the water meter in the yard into your home. MSUD is not aware of any lead service lines still being used in the District. It is our policy to replace any

lead components we are responsible for as soon as we find them. If we find lead components on the customer side of the meter, we will notify the customer. It may be common to find “partial” lead service lines, where unknown sections are lead pipe and the connecting ends are galvanized or some other material.



Bulb shaped connection on a lead service line.  
(photo courtesy of US EPA Region 5)

## Who is responsible for the service line?

The property owner is responsible for the service line from the meter to the residence. Any work on the customer owned portion of the water service is the responsibility of the owner.

## What is the cost of replacing a lead service line?

The actual cost of replacing a service line is dependent on a number of factors including the length of the line, the environment its buried in (soil, paved over, tree roots, etc.), and the technique used to install the new line.

## Can I tell if my water contains too much lead?

MSUD regularly tests the water at a select number of homes for lead and copper. Customers residing in these homes are made aware of the results and they are published in the Annual Water Report. The Tennessee Department of Environment and Conservation is also provided these results as required. You can have your water tested for lead by a certified laboratory. Since you cannot see, taste, or smell lead dissolved in water, testing

is the only sure way of knowing. More information can be found at the TDEC website <http://tn.gov/environment/topic/wr-wq-dw-drinking-water>

## How can I reduce my exposure?

Although our water is treated to minimize the risk of lead, you can take steps to further reduce your household's exposure to lead by following these steps.

If you know you have lead pipes or lead solder:

- **Flush your tap for 30 seconds to 2 minutes before drinking or cooking with water that has sat undisturbed for several hours.** The longer the water lies dormant in your pipes, the more lead it might contain.
- **Use only cold water to cook with or for drinking.** Hot water has the potential to contain more lead than cold water.
- **Remove loose lead solder and debris from plumbing.** Remove the aerator/strainer from your faucet periodically and run the water 3-5 minutes. If replacing or installing fixtures, ensure they are “lead free.” Under the 2011 Reduction of Lead in Drinking Water Act, all new components must have 0.25% lead or less to be considered “lead free.”
- **Don't use tap water known to contain lead for making infant formula.** Lead is especially harmful to young children and pregnant women.



If you have any questions or concerns be sure to contact the Water Quality Department.

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