

**LEAD IN DRINKING WATER**  
**Important information on how to protect your health**

Lead is a common metal that has been in many consumer products but is now known to be harmful to human health if ingested or inhaled. It can be found in lead-based paint, air, soil, household dust, food, some types of pottery, and drinking water. Lead is rarely found in natural sources of water such as rivers, lakes, wells or springs.

**What are the health effects of lead?**

When people come in contact with lead, it may enter their bodies and accumulate over time, resulting in damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of the body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead in water can be a special problem for infants whose diets may be mostly liquids — such as baby formulas or concentrated juices mixed with water. Smaller bodies can absorb lead more rapidly than bigger ones, so amounts of lead that won't hurt an adult can be very harmful to a child. Scientists have linked the effects of lead on the brain with lowered IQ in children. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**What are the sources of lead exposure?**

The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. If concerned, parents should ask their health care provider about testing children for high levels of lead in the blood.

**What can I do to reduce exposure to lead in drinking water?**

Lead may work its way into drinking water after the water entered the distribution system and is on its way to consumers' taps. This usually happens through the corrosion of materials containing lead in household plumbing. These materials include brass faucets, lead solder on copper pipes, lead pipes, or lead service lines connecting the water main to the indoor plumbing. Lead pipes are no longer installed for service lines or in household plumbing and lead solder has been banned in Missouri since 1989.

There are several steps you can take to reduce your exposure to lead in drinking water including the following:

1. **Run your water to flush out lead.** If water has not been used for several hours, allow the water to run at the tap for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead-containing water from the pipes. The water you run from drinking water taps does not have to be wasted. You can use this water for cleaning purposes or for watering plants. You may want to keep a container of drinking water in your refrigerator so you don't have to run water every time you need it.
2. **Use cold water for cooking and preparing baby formula.** Do not drink or cook with water from the hot water tap, as lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
3. **Do not boil water to remove lead.** Boiling water will not reduce lead.
4. **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact the National Sanitation Foundation at 800-NSF-8010 (800-673-8010) or [www.nsf.org](http://www.nsf.org) for information on performance standards for water filters. If you choose to install a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.
5. **Get your children tested.** Contact your local health department or healthcare provider to find out how to get children tested if it is a concern.
6. **Identify if your plumbing fixtures contain lead.** New brass faucets, fittings, and valves, including those advertised as "lead-free" may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead-free". Visit the National Sanitation Foundation Website at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

**For more information**

Call us at \_\_\_\_\_ for more information on reducing lead exposure around your home and the health effects of lead, visit the Environmental Protection Agency's website at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD (800-424-5323), or contact your health care provider.

**CUSTOMER NOTICE FOR  
LEAD AND COPPER IN DRINKING WATER**

**SHELL KNOB ELEMENTARY SCHOOL**

is a public water system and therefore we are responsible for providing you with water at this location that meets state and federal standards. We recently collected drinking water samples for lead and copper. The results of this testing are as follows:

<i>Sample Location</i>	<i>Sample Date</i>	<i>Copper Concentration ppb</i>	<i>Lead Concentration ppb</i>
Tier F1/ Kitchen Sink	8/31/2016	31.7 UG/L	< 1 UG/L
Tier F1/ Cafeteria Sink	8/31/2016	35.3 UG/L	< 1 UG/L
Tier F1/ Elementary Hallway Drinking Fountain	8/31/2016	49.7 UG/L	1.33 UG/L
Tier F1/ 6 Bathroom Drinking Fountain	8/31/2016	143 UG/L	4.64 UG/L
TierF1/Entryway-Main Building Drinking Fountain	8/31/2016	150 UG/L	14.3 UG/L

The 90th percentile copper concentration for our waterworks is 146.5 ug/L (ppb). The 90th percentile lead concentration for our waterworks is 9.5 ug/L (ppb).

**What does this mean?**

Under the authority of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) set the Action Level for lead in drinking water at 15 parts per billion (ppb). The action level for copper is 1300 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile value). The Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Because lead may pose serious health risks, the EPA also set a Maximum Contaminant Level Goal (MCLG) for lead of zero (0). The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

For most people copper does not post a health risk, even at higher levels sometimes found in drinking water. However, to those with Wilsons Disease, a rare inherited disorder, high copper levels are a concern.

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