

## IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

*THE WELL WATER DISTRIBUTION SYSTEM [FARMS DISTRICT] HAS EXCEEDED THE ACTION LEVEL FOR LEAD. Lead can cause serious health and development problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.*

This notice is brought to you by MSU IPF Power & Water Department  
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### Health Effects of Lead

*Lead can cause serious health and development problems. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, Michigan State University is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact Ingham County Health Department Environmental Health at (517) 887-4312.*

### Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure due to the widespread use of lead in plumbing materials. EPA estimates that drinking water can make up 20 percent or more of a person's potential exposure to lead. Infants who consume mostly mixed formula can receive 40 - 60 percent of their exposure to lead from drinking water.

The action level is 15 parts per billion (ppb) for lead and 1.3 parts per million (ppm) for copper. The action level is a measure of corrosion control effectiveness. It is not a health-based standard. To meet the requirements of the Lead and Copper Rule, 90 percent of the samples collected must be below the action level. The following table summarizes the lead and copper data collected during the most recent monitoring period:

### Most Recent Sampling Information for the Well Water Distribution System [Farms District]

Action Levels	90 <sup>th</sup> Percentile Value	Range of results (minimum-maximum)	# of samples used for 90 <sup>th</sup> Percentile
Lead 15 parts per billion (ppb)	<b>50 ppb</b>	2 - 93 ppb	5
Copper 1.3 parts per million (ppm)	<b>1.5 ppm</b>	0 - 2.67 ppm	5

Out of the five samples collected in the Farms District south of main campus, one sample tested at 93 ppb for lead and 2.67 ppm for copper, exceeding Action Levels. The other four Farms District sample locations tested from 2 to 6 ppb for lead and 0 to 0.34 ppm for copper.

### Most Recent Sampling Information for the Domestic Water Distribution System [Main Campus]

Action Levels	90 <sup>th</sup> Percentile Value	Range of results (minimum-maximum)	# of samples used for 90 <sup>th</sup> Percentile
Lead 15 parts per billion (ppb)	<b>0 ppb</b>	0 - 2 ppb	30
Copper 1.3 parts per million (ppm)	<b>0.7 ppm</b>	0.0 - 1.2 ppm	30

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None of the samples in the domestic water distribution system for the Main Campus exceeded Action Levels.

Lead can enter drinking water when pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead corrode. Corrosion is the dissolving, or wearing away, of metal caused by a chemical reaction between water and your plumbing. Several factors affect the amount of lead that enters the water, including the water quality characteristics (acidity and alkalinity), the amount of lead in the pipes, plumbing and/or fixtures, and the frequency of water use in the home.

Some plumbing products such as service lines, pipes and fixtures may contain lead. The infographic below demonstrates where sources of lead in drinking water could be in your home. Older homes may have more lead unless the service line and/or plumbing has been replaced. Homes built...

- **Before the 1960s** are more likely to have lead service lines, lead pipes, fixtures, and/or solder that contain lead.
- **Before 1988** are likely to have fixtures and/or solder that contains lead.
- **Between 1996 and 2014** are likely to have fixtures that contain up to eight percent lead but were labelled "lead-free."
- **In 2014 or later** still have potential lead exposure. "Lead free" was redefined to reduce lead content to a maximum of 0.25 percent lead in fixtures and fittings. Fixtures that are certified to meet NSF Standard 61 meet this more restrictive definition of "lead free."

Leaded solder and leaded fittings and fixtures are still available in stores to use for non-drinking water applications. Be careful to select the appropriate products for repairing or replacing drinking water plumbing in your home.

Galvanized plumbing can be a potential source of lead. Galvanized plumbing can absorb lead from upstream sources like a lead service line. Even after the lead service line has been removed, galvanized plumbing can continue to release lead into drinking water over time. Homes that are served by a lead service line should consider replacing galvanized plumbing inside the home.

Drinking water is only one source of lead exposure. Other common sources of lead exposure are lead-based paint, and lead-contaminated dust or soil. Because lead can be carried on hands, clothing, and/or shoes, sources of exposure to lead can include the workplace and certain hobbies. Wash your children's hands and toys often as they can come in contact with dirt and dust containing lead. In addition, lead can be found in certain types of pottery, pewter, food, and cosmetics. If you have questions about other sources of lead exposure, please contact Ingham County Health Department Environmental Health at (517) 887-4312.

### **Particulate Lead**

Lead results can vary between tests. A single test result is not a reliable indicator of drinking water safety. Two different types of lead can be present in drinking water, soluble lead and particulate lead. Soluble lead is lead that dissolves because of a chemical reaction between water and plumbing that contains lead. Particulate lead is dislodged scale and sediment released into the water from the sides of the plumbing and can vary greatly between samples. Disturbances, such as replacing a water meter, construction and excavation activities, or home plumbing repairs can cause particulates to shake free from inside pipes and plumbing. Particulate lead is a concern because the lead content can be very high. Lead particulate could be present in a single glass of water, but not present in water sampled just before or after. During construction, monthly aerator cleaning and using a filter certified to reduce lead are recommended to reduce particulate lead exposure.

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### Check whether your home has a lead service line.

While MSU does not have any lead service lines in our water distribution systems, check whether your home or apartment off campus has a lead service line. Homes with lead service lines have an increased risk of having high lead levels in drinking water.

### Steps You Can Take to Reduce Your Exposure to Lead in Your Water

1. **Run your water to flush out lead.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes.

- If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
- If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.

Additional flushing may be required for homes that have been vacant or have a longer service line. Your water utility can help you determine if longer flushing times are needed.

### 2. **Everyone can consider using a filter to reduce lead in drinking water.**

MDHHS recommends every household use a certified lead filter to reduce lead from their drinking water, especially households with a child, or a child frequently visits the home, pregnant person, or individual with high blood pressure, or people residing in houses built before 1987.

Look for filters that are tested and certified to NSF/ANSI Standard 53 for lead reduction and



System Tested and Certified by NSF International against NSF/ANSI Standard 53 for the reduction of Lead.

NSF/ANSI Standard 42 for particulate reduction (Class I). Some filter options include a pour-through pitcher or faucet-mount systems. If the label does not specifically mention lead reduction, check the Performance Data Sheet included with the device. Be sure to

maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.

3. **Use cold water for drinking and cooking.** Do not cook with or drink water from the hot water tap, lead dissolves more easily into hot water.

4. **Use cold water for preparing baby formula.** Do not use water from the hot water tap to make baby formula. MDHHS recommends using bottled water or a filter certified to reduce lead to prepare baby formula.

5. **Do not boil water to remove lead.** Boiling water will not reduce lead levels.

6. **Consider purchasing bottled water.** The Food and Drug Administration (FDA) regulates bottled water. The bottled water standard for lead is 5 ppb.

7. **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure. Ingham County Health Department Environmental Health at (517) 887-4312.

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8. **Identify older plumbing fixtures that likely contain lead.** Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked “lead-free.” Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive “lead-free” definition but may still contain up to 0.25 percent lead. When purchasing new plumbing materials, it is important to look for materials that are certified to meet NSF standard 61. The EPA prepared a brochure that explains the various markings that can indicate that materials meet the new “lead free” definition:

<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt>.

9. **Clean your aerator.** The aerator on the end of your faucet is a screen that will catch debris. This debris could include particulate lead. The aerator should be removed at least every six months to rinse out any debris.

10. **Test your water for lead.** Visit our website at [MSU Campus Water Quality](#) for more information. If you are a MSU well water distribution system water customer in the Farms District and would like to have your drinking water tested for lead, call ContactIPF at (517) 353-1760.

### **What Happened? What is Being Done?**

MSU conducts testing of tap water in buildings on campus associated with our water distributions system for lead and copper.

This summer, we collected samples from five (5) buildings in the well water distribution system [Farms District]. One (1) of the five (5) building samples collected in the Farms District were above the Action Level for lead and copper. We also collected 30 building samples from the domestic water distribution system [Main Campus]. None of the samples collected in the Main Campus were above the Action Level for lead or copper.

MSU does not have lead in its water mains or service lines. However, lead can enter drinking water when it is in contact with pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead. MSU employs corrosion control treatment to reduce lead or copper leaching.

If you are a MSU well water distribution system water customer in the Farms District and would like to have your drinking water tested for lead, call Contact IPF at (517) 353-1760.

We will be collecting 10 building samples in the Farms District every six months in 2024 and reviewing the results to determine if corrective actions are necessary to reduce corrosion in building plumbing.

### **For More Information**

Visit our website at [MSU Campus Water Quality](#). Or call us at Contact IPF at (517) 353-1760.

Additional information is available at [Michigan.gov/EGLEleadpublicadvisory](http://Michigan.gov/EGLEleadpublicadvisory) or [Michigan.gov/MiLeadSafe](http://Michigan.gov/MiLeadSafe).

For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA’s Web site at [Epa.gov/lead](http://Epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, call Ingham County Health Department Environmental Health at (517) 887-4312, or contact your healthcare provider.

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**CONCERNED ABOUT LEAD IN YOUR DRINKING WATER?**

# Sources of **LEAD** in Drinking Water

