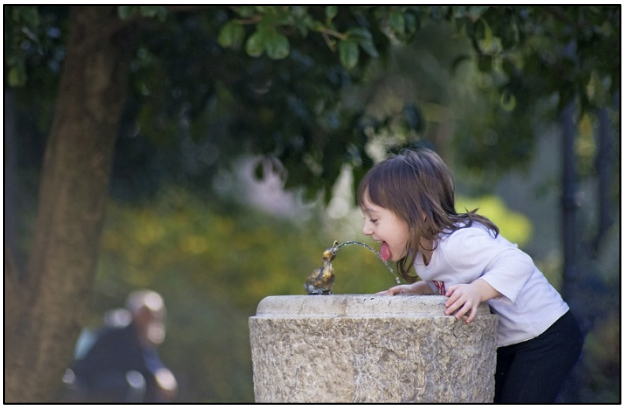
Child Care Programs
How to Collect Lead Water Samples

Why Test for Lead?



Even though your local water utility may deliver water that meets all federal and state public health standards for lead, there might still be lead present in your interior plumbing, and that can affect the amount of lead found in drinking water from your taps. Soldered joints in pipes and leaded brass fittings found in some drinking water outlets (such as drinking fountains and water faucets) can be primary contributors of lead in drinking water. For this reason, it is important that you test the water at your location to determine the extent to which lead may be leaching from the plumbing within your facility.

The potential for lead to leach into water increases the longer the water remains in contact with lead in the plumbing. Consequently, facilities with intermittent water use patterns, such as schools and child care programs, may be susceptible to elevated lead concentrations. Testing your facility's water will tell you if children who spend time in your care may be exposed to lead from your drinking water. Children are particularly vulnerable to lead's health dangers: Lead is a toxic heavy metal. Lead is particularly dangerous for children under age 6 years because it can affect brain development and cause lower IQ, learning disabilities, behavior problems, speech and language delays, and hearing damage. For older children and adults, ongoing lead poisoning can damage the brain, nervous system, and kidneys. It can also cause high blood pressure in older children and adults.

Where Should I Sample?

Any outlet for potable water (water that can be safely ingested) is a potential source of drinking water. Some outlets are regularly used by staff for drinking, cooking, filling children's water bottles or making formula. Others, like an outdoor spigot, may rarely be used for consumption. Choose sampling sites based on potential use and risk. The following high- and low-priority system should be used as a general guideline when determining locations from which to sample:

High priority:

- Drinking fountains
- Classroom sinks
- Kitchen sinks used to prepare food or formula

Low priority:

- Bathroom faucets (unless regularly used by children for drinking purposes- then it would be a high priority site)
- Utility sinks (not used for filling water bottles)
- Hot water outlets

Samples should be collected from as many high priority sites as possible.

How Can I Order Sample Bottles?

Child care programs can order up to 10 sample bottles from the Maine Health and Environmental Testing Laboratory (HETL). Call (207) 287-2727 to order the number of sample bottles you need for testing at your facility. Let the laboratory know this is for **PbCC sampling** (this stands for lead child care**)** so they can send you the proper sized bottles and correct paperwork. **The Drinking Water Program will cover the full cost of processing your sample, including shipment and sample analysis**.

NOTE: Child care programs that are also regulated by the Safe Drinking Water Act are **not included** in this sampling since sampling for lead is already occurring on a regular basis at those facilities. This sampling also **does not replace** any water sampling requirements that Maine DHHS Children's Licensing and Investigation Unit has for child care programs. Samples required by Maine DHHS Children's Licensing and Investigation Unit will still need to be requested and paid for by your program.

How Do I Collect My Samples?

Step 1:

Allow water to sit undisturbed (unused) in the plumbing for at least 8 hours (with a recommended maximum of 18 hours). Sampling first thing in the morning before anyone has used the water is a great way to make sure the water has been unused for 8 hours. If appropriate, tape a plastic bag and tag each sample location with a "Do Not Use" sign at the beginning of the stagnation period to reduce the risk that the outlet is inadvertently used.

Step 2:

Place the open sample bottle under the faucet and turn on the water tap to a normal usage flow. Fill the sample bottle completely. Move the container away from the water stream and put the cap on tightly, then shut off the faucet.

Things to Remember When Sampling:

- Do not remove the faucet's aerator prior to sampling
- Do not rinse the sample bottle before filling with tap water

Step 3:

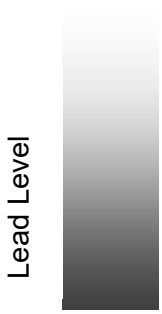
Record the date and time the water was last used, the date and time the water was sampled and the sample location on the paperwork that comes with your bottles.

Step 4:

Promptly mail the filled sample bottles and the completed paperwork to the Maine Health & Environmental Testing Laboratory. Samples must be received within 14 days from collection.

Understanding Sampling Results

When you receive your water sample test results from the lab, they will report concentrations of lead in parts-per-billion (ppb). While there is no safe level of lead, lead levels over 4 ppb exceed the Maine guideline for lead and are recommended for mitigation/remediation. Lead levels over 15 ppb are considered significantly elevated and trigger further investigation and possible abatement requirements under Maine's Lead Poisoning Control Act.



0 ppb — **Fixtures can be used as normal**

4 ppb — **Mitigation/remediation recommended**

>15 ppb — **Maine DHHS Childhood Lead Poisoning Prevention Unit will reach out and conduct follow-up sampling. If levels are found to be 15 ppb or higher, abatement will be required per Maine's Lead Poisoning Control Act (22 MRS § 1321).**

As you review your sample results, consider not only the lead levels, but also the vulnerability of the children and the likelihood of exposure. Remember, younger children are more vulnerable to lead and are more likely to be exposed by consuming water that goes into making formula and by drinking out of their water bottles. Also keep in mind that the longer water sits undisturbed within your plumbing (such as after the weekend), the higher the potential for lead to dissolve into the water.

The Drinking Water Program will conduct a follow-up survey to all the child care programs that sampled for lead to ask what, if any, remediation took place after the child care program learned of their results.

If you have questions about your lead results or want information about **additional free sampling that can be done to help locate the source of the lead**, contact the Drinking Water Program at 207-287-2070.

Steps to Reduce the Risk of Lead Exposure in Drinking Water

The following steps can be used to reduce concentrations of lead in your drinking water.

If you perform mitigation measures to address a high lead result, it is always recommended that you sample after that change to confirm that your efforts have effectively reduced lead levels in your water. The Drinking Water Program will pay the cost of analysis of confirmation samples.

1. **Only Use Cold Water for Drinking and Cooking**

   Never use hot water for drinking, cooking or preparing formula bottles for infants. Lead leaches more easily into hot water than into cold water. The water may also sit for long periods of time in contact with lead components in a hot water tank which can increase the lead levels.

2. **Clean Your Aerators**

The aerator is the wire mesh on the end of your faucet, it can trap lead particles that are released from the building's plumbing and then they can continue to leach lead in your drinking water. Remove and clean your aerators from your faucet on a routine basis to potentially lower lead levels in your drinking water.

3. **Flush Your Fixtures Before Consumption**

Since the time water is in contact with the buildings plumbing may increase the concentration of lead in water, flushing drinking water fixtures is recommended. Flushing may be a good option to reduce high lead levels if fixture/plumbing replacement or treatment is not an option. Water should be flushed after weekends, holidays, and vacations. A good rule of thumb for flushing fixtures is to flush for a minute or longer.

4. **Replace Fixtures and/or Plumbing**

Some fixtures and plumbing materials may contain lead. If you have high levels of lead in your drinking water, consider replacing fixtures and plumbing which may contain lead. Make sure the materials you replace them with are rated "lead-free" and flush the fixtures after any plumbing or fixture replacement to remove any particulate lead that may have been released in that process.

5. **Sample for Lead Routinely**

Although free sampling through the Drinking Water Program can only be used once, routinely testing your water for changing lead levels is recommended. A regular sampling program covering the most critical drinking water fixtures is recommended every 3-5 years since lead release in water is dynamic. In addition, work on the plumbing or drinking water fixtures may affect lead concentrations. Lead sampling is recommended after removing or replacing any piping or drinking water fixtures.

6. **Install Treatment Devices**

Some treatment devices can reduce or effectively remove all lead from your drinking water. However, treatment devices require routine maintenance and cartridge replacement to remain effective.

For more information, please visit the Maine CDC Drinking Water Program website at www.medwp.com, or the Environmental Protection Agency's website at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water