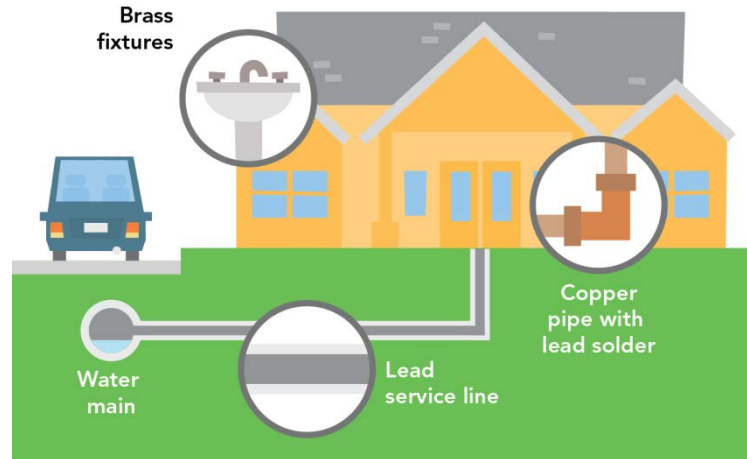


# Lead in Drinking Water in Childcare Facilities

Common sources of lead exposure include contaminated soil, lead-based paint chips, and paint dust. However, lead exposure among children can also come from an everyday source: our drinking water. In fact, for formula-fed infants, an estimated 40 to 60 percent of lead exposure comes from drinking water that is used to prepare their formula.<sup>1</sup>

It's rare for lead to occur naturally in drinking water or for lead in water to originate from a water treatment plant. Most often, lead ends up in drinking water through lead service lines or plumbing materials like lead solder and brass fixtures that leach lead into drinking water through a process called corrosion.



## What is a lead service line?

A service line is a pipe that delivers water to your childcare facility from the water main under the street. These lines may be made of lead if the home or building was constructed before 1986, which is when the Safe Drinking Water Act banned the use of lead service lines. Smaller, home-based childcare facilities are more likely to have lead service lines than bigger facilities. This is because bigger facilities require the use of larger service pipes which were typically not made of lead.

An estimated 730,000 lead service lines exist in Illinois<sup>2</sup>, which is more than any other state. To find out if a lead service line exists at your childcare facility, contact your facility's water provider or a licensed plumber. You can also investigate if your facility's service line is made of lead by using a visual inspection guide like the one created by National Public Radio: [npr.org/pipes](http://npr.org/pipes).

## Health Implications of Lead Exposure in Children

While lead exposure has health implications for all people, the effects are especially adverse among infants, children under the age of six, and pregnant women. Children's developing bodies absorb more of the lead they are exposed to than their adult counterparts.

The Centers for Disease Control and Prevention (CDC) states that no safe blood lead level in children has been identified.<sup>3</sup> Exposure at even low levels can damage the brain and nervous system, impair a child's development, and contribute to learning and behavior problems, in and out of the classroom. It can also lower a child's IQ and contribute to hearing loss.

## Why is it important to test the drinking water at my childcare facility?

Children spend a lot of time at childcare facilities and likely drink tap water and eat food prepared with water in these homes or buildings. Testing your water for lead will help you identify potential lead sources and take appropriate action to protect the children in your facility.

<sup>1</sup> EPA: <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

<sup>2</sup> National Survey of Lead Service Line Occurrence: <https://awwa.onlinelibrary.wiley.com/doi/full/10.5942/jawwa.2016.108.0086>

<sup>3</sup> CDC: [https://www.cdc.gov/nceh/lead/acclpp/blood\\_lead\\_levels.htm](https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm)

Licensed day care homes, day care centers, and group day care homes serving children ages birth to six years and built on or before January 1, 2000, will need to test their water for lead in 2018 to comply with recent Illinois law. The Department of Children and Family Services will issue further guidance on compliance soon.

Remember: Lead is invisible. You cannot see, taste, or smell lead in drinking water. The only way to confirm that a facility's drinking water contains lead is to have it tested.

### How can I reduce lead exposure?

Please see the box at right for steps you can take **today** to reduce lead exposure. Other ways to reduce lead exposure include replacing brass fixtures installed before 2014 or your entire service line if it is made of lead. A licensed plumber can provide you with a cost estimate for removing sources of lead in your facility's plumbing system. Your investment in safe drinking water will help ensure the healthy development of children.



### Resources for More Information

- CDC's overview on lead: [cdc.gov/nceh/lead/](http://cdc.gov/nceh/lead/)
- Basic information from the EPA on lead in drinking water: [epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](http://epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water)
- EPA's 3T's for reducing lead in drinking water in childcare facilities: [epa.gov/dwreginfo/3ts-reducing-lead-drinking-water-schools-and-child-care-facilities](http://epa.gov/dwreginfo/3ts-reducing-lead-drinking-water-schools-and-child-care-facilities)
- EPA's guidance on identifying lead-free certification marks: [nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt](http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt)
- The Environmental Defense Fund's resource on the threat of lead: [edf.org/health/lead-toxic-legacy](http://edf.org/health/lead-toxic-legacy)
- Illinois Department of Public Health's "Lead in Water" resource: [dph.illinois.gov/topics-services/environmental-health-protection/lead-in-water](http://dph.illinois.gov/topics-services/environmental-health-protection/lead-in-water)
- NSF International's guide to choosing a certified lead filtration device: [nsf.org/info/leadfiltrationguide](http://nsf.org/info/leadfiltrationguide)

### About Elevate Energy

Elevate Energy is a 501c3 nonprofit organization with a mission to design and implement energy and healthy housing programs that lower costs, protect the environment, and ensure the benefits of energy efficiency reach those who need them most. In the process, we improve building health and safety for occupants. Elevate Energy has over 15 years of experience addressing complicated healthy housing challenges in the Chicago region and throughout the United States.

### About the Environmental Defense Fund

Environmental Defense Fund is a 501c3 nonprofit organization with a mission to preserve the natural systems on which all life depends. EDF has more than two million members and a staff of 700 scientists, economists, policy experts, and other professionals around the world. Its Health Program seeks to safeguard human health by reducing exposure to toxic chemicals and pollution, including lead in drinking water.

### What can I do right now?

Keep the following tips in mind to help reduce lead in your childcare facility today.

- If you haven't used water in your facility in more than a few hours, **flush your cold-water tap** (let the water run) for at least 30 seconds before use. If your facility has a lead service line, flush your water for longer to ensure that water sitting in the service line is flushed out of the system.
- **Clean your faucet aerators** (the removable screen located at the tip of your faucet) to remove built-up sediment and debris. Soaking the aerator in vinegar can help dissolve and remove particulate lead.



- Use **cold tap water** for drinking, cooking, and preparing baby formula and cereal. Hot tap water may contain more lead than cold water.
- If you need hot water, draw cold water and heat it on the stove. **Boiling water does not remove lead.**
- If there is concern about lead at a specific faucet, install a **water filter** that is approved to remove lead (look for one that is NSF/ANSI Standard 53 certified). These come in a variety of shapes, sizes, and prices.