

Clean Water for Carolina Kids

Information on Lead in Drinking Water



As part of the Clean Water for Carolina Kids study, RTI International has compiled the following information for parents and child care providers on lead in drinking water; this information comes from reliable scientific and government resources. Please contact us for more information about the Clean Water for Carolina Kids study.

How does lead get into drinking water?

Lead is a naturally occurring metal used in devices like car batteries and X-ray aprons. Though it occurs naturally, most lead exposure is due to human activities. You or your child may be exposed to lead from things like contaminated soil, paint chips, dust, or drinking water. Lead in drinking water generally comes from corroding pipes, plumbing, and fixtures. Pipe corrosion depends on water chemistry and pipe age and material.

Why is lead in drinking water bad?

Lead enters the bloodstream when a person is exposed to lead from drinking water or another source. Some lead is then stored in organs and muscles, where it can cause serious health effects. The nervous system, including the brain, is the most sensitive to lead. Health effects and their severity depend on the extent of exposure and the person's individual characteristics. Children are more vulnerable to the health effects of lead than adults because their bodies absorb lead more easily, and because their organs and systems are still developing.

How much lead in drinking water is too much?

The U.S. Environmental Protection Agency (EPA) has set the maximum contaminant level goal (MCLG) for lead in drinking water at 0 parts per billion (ppb) because any

amount of lead is harmful to human health. Even bottled or filtered water may have low levels of lead. Refer to the text box for benchmark levels of lead in drinking water.

How do utilities and the EPA monitor lead in drinking water?

The EPA requires utilities to conduct "at the tap" lead testing at a limited number of homes. If 10% or more samples exceed an EPA action level of 15 ppb, the EPA mandates that the utility inform the public and reduce exposure by minimizing corrosion in service lines. The EPA does not currently require "at the tap" lead testing at schools and child care centers using public water supplies.

Benchmark Levels for Lead in Drinking Water

0 ppb: The EPA MCLG for lead in drinking water.

5 ppb: U.S. Food and Drug Administration prohibits bottled water with lead levels above this.

10 ppb: Water filtration devices certified to American National Standards Institute standards must reduce lead to this level.

15 ppb: The EPA treatment-based lead action level for public utilities.

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How can I reduce the lead in the water I drink?

Test your drinking water for lead if the building (e.g., your home, child care center) was built before 1988. These buildings are more likely to have lead in the plumbing and fixtures. To reduce the amount of lead in your drinking water, the EPA recommends the following:

- Running the water until it becomes cold or for 1–2 minutes before using it for drinking or cooking, especially if you haven't used the water for several hours
- Using only cold water for cooking and drinking
- Using point-of-use water treatment devices certified to remove lead (Note: Boiling water does not remove lead.)
- Replacing pre-1988 plumbing fixtures (e.g., faucets, water fountains) with ones manufactured after January 2014 to meet the strictest EPA standards for lead content.

See our separate Point-of-Use Water Treatment and Bottled Water Guidance document for more information on choosing the right water treatment device for your home or child care center.

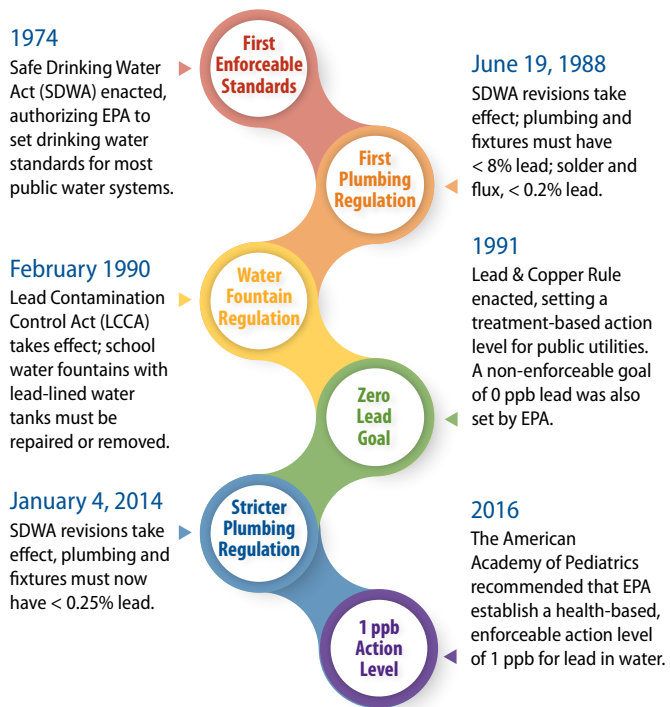
Should my child be tested for lead exposure?

Visit your child's health care provider if you think your child has been exposed to lead. The provider can give you information and test your child's blood for lead, which is the best way to detect recent exposure. The North Carolina Department of Health and Human Services (DHHS) recommends that all children receive a blood lead test at 12 and 24 months of age.

Where can I find more information and resources?

- Find local information for testing your drinking water for lead by calling the EPA's Safe Drinking Water Hotline at 1.800.426.4791.
- Contact your water provider and ask if they provide free water testing for lead or other contaminants.
- Contact your water provider and ask for their annual Consumer Confidence Report. These reports are released each July and provide testing results about drinking water quality.
- Contact your local health department. Some provide free blood lead testing and other services.

EPA Lead in Drinking Water Regulations



Online Resources

Federal

- EPA: Basic Information About Lead in Drinking Water
- EPA: Protect Your Family from Exposures to Lead
- EPA: Lead in Drinking Water in Schools and Childcare Facilities
- CDC: Information for Parents About Lead

North Carolina

- North Carolina Childhood Lead Poisoning Prevention Program (CLPPP)
- North Carolina Healthy Homes: Lead
- North Carolina Childhood Blood Lead Testing
- North Carolina Resources for Private Well Water Users

More Information

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