



## TRUMBULL COUNTY COMBINED HEALTH DISTRICT

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**Public Health**  
Prevent. Promote. Protect.

# Lead in Drinking Water

Lead is a toxic heavy metal that was used for years in products found around the home. It can be found in:

- water
- lead-based paint
- air
- soil
- household dust
- food
- certain types of pottery, porcelain, and pewter

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily because of corrosion of materials containing lead in the water distribution system and household plumbing. Some common causes of corrosion are dissolved oxygen, low pH, and low mineral content in the water. In 1986, Congress banned the use of lead solder containing more than 0.2% lead and restricted the lead content of faucets, pipes, and other plumbing materials to not more than 8.0%.

When water stands for several hours in lead pipes or plumbing systems containing lead, the lead may dissolve into the drinking water. This means the water from the faucet in the morning, or later in the afternoon after returning from work or school, can contain higher levels of lead.

### **EFFECTS OF LEAD ON HEALTH**

Lead can cause serious health problems if it enters the body from drinking water or other sources. 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 the 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.

## **STEPS TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER**

To reduce your exposure to lead in drinking water, the following precautions should be considered and taken:

- Purchase bottled water for drinking and cooking. Pregnant woman, infants, and young children are recommended to use this alternative source of drinking water. Use bottled water for infants and young children who drink baby formulas and concentrated juices that are mixed with water.
- Flush faucets before using them for drinking or cooking anytime the water in a faucet has gone unused for more than six hours. Flush the faucet by running the cold-water faucet until the water gets noticeably colder, usually about 30 seconds to 2 minutes. If your house or building has a lead service line to the water main, you may have to flush the water for a longer time. Although toilet flushing or showering flushes water through a portion of your home or building's plumbing system, you still need to flush water in each faucet before using it for drinking or cooking. To conserve water, fill a couple of bottles for drinking water after flushing the faucet, and wherever possible use the first flush to wash dishes or water the plants.
- Do not cook with or drink water from the hot water tap. Hot water can dissolve more lead in less time than cold water. Do not prepare baby formula with hot or cold contaminated water.
- Do not boil water to remove lead. Boiling water will not reduce lead levels.
- Periodically remove the strainers from faucets and flush by running water for 3 to 5 minutes to remove any loose lead solder or debris that has accumulated over time.
- Parents may want to have your child's blood tested for lead by your family doctor or pediatrician and they can provide you information about the health effects of lead.
- Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only water that flows from the faucet(s) to which it is connected, and all of the devices require periodic maintenance and replacement. Counter top devices such as reverse osmosis systems installed on the faucet or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the faucet.

If you wish to have your drinking water tested to determine if it contains excessive concentrations of lead, call the Trumbull County Combined Health District at 330-675-2489. Testing is important because you cannot see, taste, or smell lead in drinking water.

For additional information, see the following from the Centers for Disease Control and Prevention at <http://www.cdc.gov/nceh/lead/tips/water.htm>.