5. If you receive water from a public water supply determine if the service line that connects your home to the water main is made of lead. A licensed plumber can inspect the service line, as well as, check to see if your home's plumbing contains lead solder, lead pipes or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. Public water systems are required to reduce the water lead level to below 15 ppb (0.015 mg/L).

6. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with your electrician to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself! Improper grounding can cause electrical shock and fire hazards.

The steps described above will help reduce the lead concentration in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, then you may want to take the following additional measures:

1. Acid neutralizers can be used to treat water with a low pH, making the water less corrosive and less likely to dissolve lead.

2. Treatment devices such as reverse osmosis or distillers can effectively remove lead from your drinking water. These devices are limited in that each unit treats only water that flows from the faucet to which it is connected, and all devices require periodic maintenance and replacement.

3. Purchase bottled water for drinking and cooking.

For additional information contact your local health department or the EPA Safe Drinking Water Hotline at (800) 426-4791.

Aquatek Labs

Water and Radon Testing
Certified Public Health Laboratory

3 Research Drive Woodbridge, CT
141 Boston Post Rd Old Saybrook, CT
77 Kreiger Lane #908 Glastonbury, CT

LEAD

IN DRINKING WATER

Aquatek Labs

Lead in Drinking Water

Introduction

The United States Environmental Protection Agency (USEPA) is concerned about lead in drinking water. Although most homes have very low levels of lead in their drinking water, some homes have levels greater than the USEPA maximum limit of 15 parts per billion (ppb) or 0.015 milligrams of lead per liter of water (mg/L). Since you cannot see, taste or smell lead dissolved in water, testing is the only sure way of knowing if there are harmful amounts in your drinking water.

Health Effects of Lead

Although it has been used in numerous consumer products, lead is a toxic metal now known to be harmful to human health if too much of it enters the body. Lead may build up in the body over many years and can cause damage to the red blood cells, kidneys, brain and nervous system.

The greatest risk is to young children, infants and fetuses. Growing children will more rapidly absorb any lead they consume. Also, amounts of lead that won't harm adults can slow down normal mental and physical development of growing bodies. Of particular concern are formula fed infants whose diet consists largely or entirely of fluids prepared with drinking water.

Sources of Lead in Water

Lead seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead pipes, lead-based solder used to join copper pipes and brass or chrome-plated brass faucets.

When water stands several hours in plumbing systems containing lead, the lead may dissolve in the water. This means that the first water drawn from the tap after several hours of inactivity can contain dangerously high levels of lead.

In 1986, Congress banned the use of solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. Despite these restrictions, many houses, old and new, still have elevated levels of lead contamination in their water systems.

Problems are most likely to exist in newer plumbing systems which have not yet built up an inner coating of mineral deposits or in older homes where corrosive water prevents the formation of deposits. Without this mineral coating, water is in direct contact with any exposed lead bearing surfaces.

Steps to Reduce Exposure to Lead in Drinking Water

If a water test indicates that the drinking water drawn from a tap in your home contains lead above 0.015 mg/L, then you should take the following precautions:

1. *Do a comprehensive water test to determine at least the pH and hardness of the water. Acidic and soft water can be very corrosive to the plumbing, causing lead from fixtures, pipes and solder connections to dissolve in the water.*

2. *Let the water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder.*

3. *Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw from the cold tap and heat it on the stove.*

4. *Remove loose lead solder and debris from the plumbing system installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water for 3 to 5 minutes.*