

YOU MAY HAVE HIGH LEAD LEVELS IN YOUR DRINKING WATER

As part of the EPA's Safe Drinking Water Act, all communities are required to monitor numerous parameters in drinking water, including lead. Lead is not found naturally in our drinking water. Lead enters the drinking water by corrosive action after being in extended contact with the service pipes in homes with lead services or homes having copper pipes soldered with lead solder, and are prime locations where lead concentration could be an issue. (Note: Lead solder was banned in 1986 and lead services haven't been used for decades). Marlborough's water is treated for corrosion to reduce its ability to absorb lead.

In order for the City to monitor for lead, we identified 30 locations where lead could potentially be a concern and solicited the owners help to obtain a sample. The owner was directed to take the "First Flush" sample in the morning. That is the first draw of water in the morning after it has had 6-8 contact hours with the lead service or solder. Of the 30 samples, the city had to have 90% under the action level of 15 parts per billion in order to remain in compliance. We failed this 90% by two samples. The following information is intended to educate you on the health impacts of lead and to provide you with steps you can take to reduce your exposure.

Health Effects Of Lead

Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

What Is Being Done To Reduce Lead Exposure

The City's corrosion control program is based on the treatment provided by the Massachusetts Water Resources Authority (MWRA). Their treatment consists of elevating the pH to a level of 9.5 and increasing the alkalinity level to 40 ppm, which is considered optimal for corrosion control. Marlborough treats water from local sources to the same levels of alkalinity and pH to simulate that of the MWRA. Prior to the treatment by the MWRA, the City had introduced its own corrosion control chemical and had realized satisfactory results in achieving lead and copper compliance. This was discontinued when the John Carroll Water Treatment Plant went on line. As a result of this lead exceedance, the City intends to re-introduce the corrosion control chemical to return the system to compliance.

Steps You Can Take In The Home To Reduce Exposure To Lead In Drinking Water

Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. You can have your home's water tested for lead for about \$20.00 per sample. Some local laboratories that can provide this service are listed at the bottom of this brochure. For more information on having your water tested, please call 508-624-6910 X 7400.

If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

1. Let the water run from the tap before using it for drinking or cooking any time the water in a 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, usually about 15 - 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although, toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than \$1.25 per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash dishes or water plants. If you live in a high-rise building, letting the water flow before using it may not lessen your risk from lead. These plumbing systems have more, and sometimes larger, pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.
2. 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 water from the cold tap and heat it on the stove.
3. Remove loose solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced by removing the faucet strainers from all taps and run the water from 3 - 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.
4. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify you're the Massachusetts Department of Environmental Protection at 508-792-7650 about the violation.

5. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by contacting the Marlborough DPW at 508-624-6910 X 7400 to find out if your home has a lead service or by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be maintained in the files of the Marlborough Building Dept. A licensed plumber can at the same time 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. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. In Marlborough, building water services are owned by the property owner. The Marlborough Department of Public Works, Water Division will provide the owner with information on how to replace the service line, and offer to replace the line at the owner's expense. . Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.

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 a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

The steps described above will reduce the lead concentrations 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, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

1. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap; however, all lead reduction claims should be investigated. Be sure to check the actual performance of a specific treatment device before and after installing the unit.

2. Purchase bottled water for drinking and cooking.

You can consult a variety of sources for additional information: Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

- a. The Massachusetts DEP who can be reached at 508-792-7650 and the Marlborough DPW at 508-624-6910 X 7400 can provide you with information about your community's water supply, and a list of local laboratories that have been certified by EPA for testing water quality.

- b. The Marlborough Building department at 508-460-3776 can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home;
- c. The Massachusetts Department of Public Health at 866-627-7968 or the City of Marlborough Health Department at 508-460-3751 can provide you with information about the health effects of lead and how you can have your child's blood tested. The following is a list of some State approved laboratories in your area that you can call to have your water tested for lead.

Alpha Analytical Laboratory, 8 Walkup Dr. Westborough, MA: 508-898-9220

Microbac Laboratories, 148 Bartlett St., Marlborough: 508-460-7600