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# LEAD IN DRINKING WATER

THE NORTH KINGSTOWN DEPARTMENT OF WATER SUPPLY NEWSLETTER

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December 2009

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The United States Protection Agency (EPA) and the **North Kingstown Water Dept** are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we have initiated a program to minimize lead in your drinking water.

This program includes:

1. Corrosion control treatment (treating the water to make it less likely that lead will dissolve into the water);
2. Source water treatment (removing any lead that is in the water at the time it leaves our treatment facility); and
3. A public education program.

If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at **401-268-1522**.

This brochure also explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

## 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.

## LEAD IN DRINKING WATER

Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. EPA estimates that drinking water can make up 20% or more of a person's total exposure to lead.

Unlike most drinking water contaminants, lead is unusual in that it 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-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

## STEPS 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. 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 **401-268-1522**.

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. FLUSH YOUR SYSTEM.

Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. Flushing usually uses less than one or two gallons of water and costs less than **50 cents** per month.

To flush, 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.

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.

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If you live in a high-rise building, letting the water flow before using it may not lessen your risk from lead. This is because high rise 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. USE ONLY COLD WATER FOR COOKING AND DRINKING.**

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 PLUMBING MATERIALS.**

Remove loose solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced. To do this, remove 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. IDENTIFY AND REPLACE LEAD SOLDER.**

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 the Division of Drinking Water Quality, RI Department of Health about the violation.

## **5. HAVE AN ELECTRICIAN CHECK YOUR WIRING.**

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. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater.

## **IF LEAD LEVEL PERSISTS**

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:

## **6. 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.

## **7. PURCHASE BOTTLED WATER FOR DRINKING AND COOKING.**

### **FOR MORE INFORMATION**

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:

**The North Kingstown Code Enforcement Dept at 268-1581** can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

**The North Kingstown Dept of Water Supply at 268-1522** 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; and

**The Division of Family Health within the RI Dept. of Health at 222-2312** 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 website detailing State approved laboratories in your area that you can call to have your water tested for lead.

**[www.health.ri.gov/labs/waterlabs.php](http://www.health.ri.gov/labs/waterlabs.php)**