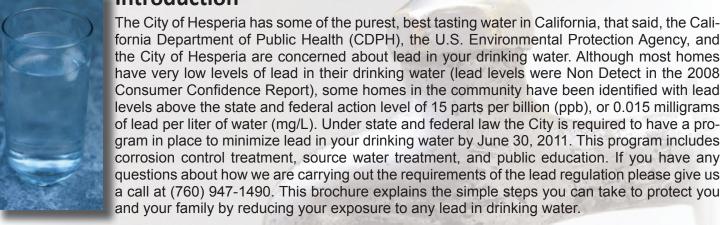


City of Hesperia

Gateway to the High Desert

Lead Public Education Program

Introduction



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, 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 in 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 formula and concentrated juices that are mixed with water. The U.S. Environmental Protection Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

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 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%. In California, a similar law prohibiting the use of both lead solder and lead pipe was enacted in 1985.

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 You Can Take 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 higher than recommended. To determine whether you need to take action in your 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 end of this booklet. For more information on having your water tested, please call (760) 947-1490.

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:

- Let the water run from the tap before using it for drinking or cooking at 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 to 30 seconds. 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 \$1.26 per month. To conserve water, fill a couple bottles of drinking water after flushing the tap, and whenever possible use the first flush water to wash dishes or water plants.
- 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.
- Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.
- 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 leadfree solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the California Department of Public Health and your local environmental health department about the violation.
- 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 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 record of building permits which should be maintained in the
 files of the Building & Safety Department. A licensed plumber can at the same time check to see if your
 home's plumbing system contains lead solder, lead pipes, or pipe fittings that contain lead. The Hesperia
 Water District also maintains records of the materials located in the water distribution system.
- 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 review 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 concentration in excess of 15 ppb after flushing, or after the City has completed actions to minimize lead levels, then you may want to take the following measures:

- Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only 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 or distillers can effectively remove lead from your drinking water. Since these treatments remove dissolved minerals, water treated by these devices will have a greater tendency to leach lead from brass faucets or fittings which the water contacts after treatment. 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 home treatment device before and after installing the unit. The California Department of Public Health certifies that the effectiveness of home treatment devices. Only devices certified by the California Department of Public Health to remove lead should be used for this purpose.
- 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:

- City of Hesperia at (760) 947-1490 can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the California Department of Public Health for testing water quality;
- City of Hesperia Building & Safety Department at (760) 947-1254, (760) 947-1304 or (760) 947-1029 can
 provide you with information about building permit records that should contain the names of plumbing
 contractors that plumbed your home; and
- California Department of Public Health, Childhood Lead Poisoning Prevention Branch at (510) 620-5600 or San Bernardino County Health Department at (909) 388-0400 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.

- Geo-Monitor, Inc. (760) 244-3481
- Babcock Laboratories (951) 653-3351





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Getting to Know the Hesperia Water District

The Hesperia Water District (District) services approximately 26,000 connections covering over 75 square miles, utilizing 555 miles of pipeline, 18 wells.

In 2009 alone, the Hesperia Water District provided over 15,000 acre-feet of potable water to citizens. An acre-foot is an agriculture measurement used to describe the amount of water it takes to cover one acre of land, one foot deep with water or 325,851 gallons. This usage equates to over 4.8 billion gallons of water in 2009 alone.

Living in the desert, the availability of water is always a topic of concern. Because the City's population has more than doubled over the last 20 years, and water that Hesperia residents use is extracted from the groundwater, it is crucial that everyone does all that they can to conserve.

The City is participating in many different water conservation programs including free home water audits, Cash for Grass and water-saving washing machine re-

bates. For more information about Hesperia's Water Conservation Program call (760) 947-1589 or visit the City's website at www.cityofhesperia.us.

