



## Meeting the Lead Standard



**PHILADELPHIA  
WATER**

**Philadelphia's water quality continues to meet all State and Federal standards.** This past year, Philadelphia Water successfully passed another round of water quality testing for lead at customers' taps.

To date, the Department's Bureau of Laboratory Services experts have tested for lead levels in accordance with the requirements of the Federal Lead and Copper Rule issued in June 1991.

Visit our websites at: [www.phila.gov/water](http://www.phila.gov/water); [www.phillywatersheds.org](http://www.phillywatersheds.org)

### Learn About Lead

It is important to minimize the intake of lead from dust inhalation, food and water.

Children are particularly susceptible to the health effects of lead poisoning. Lead is most commonly found in dust, paint and contaminated soil. To a lesser extent, lead can also occur in tap water.

Components of plumbing may have lead in them. You may be surprised to learn that brass fixtures, valves and faucets contain lead. Many homes still have leaded solder that was once used to join copper pipe together. Some homes in Philadelphia still have lead service lines and, when disturbed, these lines can contribute to lead in tap water.

The Philadelphia Water Department's primary role in helping you minimize your intake of lead is to reduce the corrosive effects of tap water on materials that contain lead. Water is corrosive and encourages the dissolving of lead from these materials.

The Philadelphia Water Department has a permit with the Pennsylvania Department of Environmental Protection to operate under optimized corrosion control. Under this permit we maintain the pH of water between 6.8 and 7.8. We also maintain the amount of the corrosion inhibitor, zinc orthophosphate, at greater than 0.12 mg/L (0.12 ppm) as phosphorus. These conditions minimize lead leaching from plumbing materials.

Currently, every three years the Philadelphia Water Department tests for lead in tap water at more than 50 representative taps of vulnerable homes in the city. We do this according to the requirement of the Environmental Protection Agency's Lead and Copper Rule. The testing results are used to determine if our corrosion control treatment technique is working, so that water has minimum potential for lead to leach from plumbing materials. So far, our test results show that our treatment techniques keep lead levels to a minimum.

However, this could change in any year because Philadelphia is required to meet other regulations for tap water quality. Sometimes these water quality changes can affect the corrosion potential of the water. If such a change were to occur, the Philadelphia Water Department would notify its customers of the change while it works to return to minimum corrosion conditions again.

Water utilities all over the country are in the same position as Philadelphia, trying to balance all of the regulatory requirements and changes at one time so that their customers receive the best quality water possible. We are committed to providing high quality water to all our customers, and our efforts have successfully reduced and maintained low lead levels in the water delivered to your home.

## Everybody Needs to Know About Lead

Infants, small children and pregnant women are at special risk from lead. There are many sources of lead, and any of them can cause problems. You can find it in old lead-based paint, battery casings, dust in the air, contaminated soil, food and, to a lesser extent, water. Here are some tips to keep lead that might be in your pipes from getting into your water.

Flush the standing water from your cold water pipes by running the cold water until it becomes as cold as it can get. Let the water run an additional half minute or so after it cools to flush the service line.

To remove loose lead solder and debris from new pipes, take out the faucet strainers from all taps and run the water for three to five minutes. Repeat this from time to time.

Fill a clean pitcher with tap water after you have been using cold water, such as after washing dishes. Since water tastes best when it is cold, place the pitcher in your refrigerator. Use the tap water from your pitcher rather than using tap water that has been sitting unused in your plumbing for an extended period of time, such as overnight.

Always use water from the cold water tap for cooking and drinking, and especially for making baby formula or juice. To get more information, call us at (215) 685-6300, and ask for free copies of "Lead-Free Kids, Lead-Free Homes."

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## Philadelphia's 3,000-mile water distribution system does not contain lead products and the treated drinking water supply is virtually lead-free.

However, Philadelphia is an old city. Homes built around the turn-of-the-century had some lead pipes for plumbing, and lead service lines were commonly installed until 1950. These pipes can still dissolve lead into drinking water. In addition, plumbing in homes built prior to 1987 probably have copper pipes joined with lead-based solders.

Homes with lead service lines and homes with internal water supply plumbing containing lead-based solders are at most risk for lead leaching into the drinking water.

Philadelphia Water uses zinc orthophosphate for corrosion control at our three water treatment plants. This minimizes the amount of lead that will dissolve from home plumbing systems.

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# Meeting the Lead Standard



Philadelphia’s water quality continues to meet all State and Federal standards. The Philadelphia Water Department has once again met the lead standard in its most current round of sampling. To meet the lead standard, more than 90 percent of the sampled homes must have lead levels under the action level of 15 parts per billion\*\* (ppb).

| Numbers and percentages of homes tested                          | 2014<br>June to September | 2011<br>June to September | 2008<br>June to September | 2005<br>June to September | 2002<br>June to September | 1999<br>June to September | 1998<br>June to September | 1997<br>July to December | 1997<br>January to June  | 1992 <sup>†</sup><br>July to December | 1992 <sup>†</sup><br>January to June |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------------------|--------------------------------------|
| <b>Homes Tested*</b>   | <b>134</b>                | <b>92</b>                 | <b>97</b>                 | <b>107</b>                | <b>63</b>                 | <b>59</b>                 | <b>78</b>                 | <b>108</b>               | <b>118</b>               | <b>143</b>                            | <b>162</b>                           |
| <b>Homes with lead levels below the action level of 15 ppb**</b> | <b>127 homes (94.8%)</b>  | <b>90 homes (97.8%)</b>   | <b>94 homes (96.9%)</b>   | <b>98 homes (91.6%)</b>   | <b>57 homes (90.5%)</b>   | <b>55 homes (93.2%)</b>   | <b>73 homes (93.6%)</b>   | <b>105 homes (97.2%)</b> | <b>108 homes (91.5%)</b> | <b>129 homes (90.2%)</b>              | <b>137 homes (84.6%)</b>             |
| <b>Homes with lead levels above the action level of 15 ppb**</b> | <b>7 homes (5.2%)</b>     | <b>2 homes (2.2%)</b>     | <b>3 homes (3.1%)</b>     | <b>9 homes (8.4%)</b>     | <b>6 homes (9.5%)</b>     | <b>4 homes (6.8%)</b>     | <b>5 homes (6.4%)</b>     | <b>3 homes (2.8%)</b>    | <b>10 homes (8.5%)</b>   | <b>14 homes (9.8%)</b>                | <b>25 homes (15.4%)</b>              |
| <b>90% of tested homes<sup>‡</sup> were less than:</b>           | <b>5 ppb</b>              | <b>6 ppb</b>              | <b>6 ppb</b>              | <b>9 ppb</b>              | <b>13 ppb</b>             | <b>9 ppb</b>              | <b>10 ppb</b>             | <b>11 ppb</b>            | <b>14 ppb</b>            | <b>15 ppb</b>                         | 21 ppb                               |

\* According to the Lead and Copper Rule, Philadelphia Water was required to test in 100 high-risk homes in 1992–1997 and in 50 high-risk homes in 1998–2014. Philadelphia Water tested for lead in more homes than required under the Lead and Copper Rule

\*\* Parts per Billion. Just how much is one part per billion? The world population is about 7 billion people. The next time you walk down the street, say “Hi” to seven people. That’s one ppb.

† The 1992 results represent conditions before PW began optimized corrosion control treatment.

‡ EPA’s action level for representative sampling of customers homes: 90% of homes must test less than 15 ppb