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# Pipe Dreams

## Lead and our drinking water

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Our bowl of a city filled with water from the skies last August. The deluges disclosed infrastructure deficiencies that our municipal government had ignored. But more than floods bombarded the Sewerage and Water Board last summer. Just before those August rains and exposed pump failures, the city's inspector general lobbed a now nearly forgotten lead balloon on that same Board.

What are health concerns related to lead? Most adults with mildly elevated levels have no specific symptoms, but even minimally detected levels accelerate cardiovascular risks from raising blood pressure to increasing the likelihood of heart attacks and strokes. Higher levels cause nerve and kidney damages.

Young children with developing nervous systems are more vulnerable to adverse effects at lower lead levels than adults. Toddlers, young holy priests of dirt to mouth transport, are most at risk. Mildly elevated lead levels can cause behavioral problems, permanent learning disabilities, and impaired development. Teenagers and young adults with documented preschool elevated lead levels are less likely to finish high school and more likely to be arrested for violent crimes.

The waterworks leading to the surge in lead anxiety erupted nationally a couple of years ago after some unfortunate municipal belt tightening in Flint, Michigan. After years of piping in processed municipal water from one of the great lakes, the city switched to water from the nearby Flint River to save money. It was a costly mistake.

There are chemical differences between different water sources. The Flint River water after purification was more acidic than the lake. Just as pool owners adjust acid and pH in home swimming pools, water purification plants can easily raise the pH of acidic water. Acidic water and pipes are a bad combination.

### Tips

**Get the lead out**

The Sewerage and Water Board will run a free lead test on your tap water. They promise results back in less than six weeks. Call 865-0420.

For faster results, buy a \$8-\$10 PRO-LAB Lead in Water collection kit and mailer from a hardware or big box store. Mail the lab a tap water sample with an additional \$40 for the analysis. Expect results back by email in about a week.

For additional online information about water and lead in New Orleans with links to national resources go to [swbno.org/history\\_water\\_lead.asp](http://swbno.org/history_water_lead.asp).

The folks running the Flint water processing plant failed Waterworks 101. Releasing acidic water into the distribution system caused their old pipes and lead solder joints to corrode leaching high levels of lead into the Flint drinking water. A safe and simple adjustment would have raised their water's pH making it less acidic.

Hundreds of houses in New Orleans also have lead feeder pipes and/or pipes soldered with lead, but we don't have acidic water. Unless these pipes are disrupted in some way, say by heavy construction, the lead stays in the pipes encased by a protective chemical oxide, sort of like the thin transparent covers used to protect cell phone screens.

If you find a flyer on your door asking you to flush your inside pipes, you may have a lead pipe. Nearby street construction might also trigger more line flushing than usual. Replacement of any lead pipes from your water meter to inside your house is on your dime.

The United States banned lead-based paints in 1978 and gasoline with lead additives in 1995. Since these bans, and with necessary precautions with sanding and removing both exterior and interior lead based paint, lead levels in both children and adults plummeted. As lead levels fell, the definition of what is elevated also fell. For children, what was once elevated was dropped to a level of concern at 10 and further decreased to needs further investigation for any level of five or more.

Dogs serve as canaries in the coal mine for households with lead problems. If a dog has elevated lead levels, small children in that household are at high risk. But what about dogs and drinking water?

"I have never seen a dog with lead poisoning from drinking water. All the occasional cases we see are associated with construction and renovations," said Dr. Gordy Labbe, an LSU graduate veterinarian from Alexandria at Metairie Small Animal Hospital.

"In dogs, lead poisoning causes vague symptoms, such as decreased appetite, vomiting, diarrhea and weight loss. With higher levels in the nervous system, seizures can occur," he said. "In suspicious cases, we ask about any nearby house renovations. Dogs can also get lead poisoning from eating chews, toys, plumbing supplies, and even fishing tackle containing lead."

It is unlikely that our municipal water supply is associated with any real lead-related health risks for humans and pets. After I voiced this opinion last July as part of a weekly WVUE health segment, a representative of the city's inspector general's office called. She disagreed with my viewpoints on this matter, but vacation plans on my part postponed me hearing more from their perspective.

The lingering presence of lead feeder lines in our water distribution system is, however, a marker of an infrastructure in distress. I do not believe our drinking water is at risk unless these pipes are disrupted by replacement or construction.

The real lead epidemic in New Orleans involves lead bullets, not our water supply.

