

New source of lead in drinking water identified: Galvanized steel pipe coatings

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When unsafe levels of lead are found in drinking water, the culprit has typically been lead pipes or lead-containing brass and bronze fittings, but in a new study researchers clearly show that lead present in the zinc coating of galvanized steel pipes can be a very significant long-term source of lead in water. Copper piping installed upstream of a galvanized steel pipe can worsen lead release from the steel's zinc coating, according to the study published in *Environmental Engineering Science*.

In "Lead Release to Drinking Water from Galvanized Steel Pipe Coatings," Brandi Clark, Sheldon Vaughn Masters, and Marc Edwards, Virginia Tech, Blacksburg, VA, analyzed water samples from homes with galvanized steel pipes in several cities across the U.S. In some cases the lead levels were greater than 100 µg/L. In simulated laboratory tests the concentration of lead in water found through galvanized steel pipes reached a maximum of 172 µg/L, which is more than 10 times the action level set by the U.S. Environmental Protection Agency.

"The Edwards' laboratory is well known for uncovering risks associated with concentrations of lead in urban water supplies," says Domenico Grasso, PhD, Editor-in-Chief of *Environmental Engineering Science* and Provost, University of Delaware. "This latest important paper from this research group has identified galvanized pipes as a potentially significant source of lead."

More information: [online.liebertpub.com/doi/full ...
0.1089/ees.2015.0073](http://online.liebertpub.com/doi/full/10.1089/ees.2015.0073)

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