

Science News: Schools need to test water, report results

By [Janet Raloff](#) Web edition: Friday, **September 25th, 2009**

Years ago, big campaigns fired up public opinion and bureaucrats' resolve to eventually remove [lead](#) from gasoline and paint. The goal had been to prevent [IQ](#) drops and other types of neurological harm in exposed babies and young children. But the toxic heavy metal continues to taint many water supplies for a host of reasons — ones I outlined in a series of blogs over the past year. And perhaps the most egregious ongoing threat: U.S. schools. Marc Edwards of Virginia Tech has turned up widespread lead — some of it at clearly hazardous levels — contaminating drinking water supplies in schools from a host of big cities.

Reporting is voluntary, and —many schools have chosen not to report a problem that they lack the budget to correct. He found that some schools, likely fearing what they might find, deliberately choose not to test for lead.

A major Associated Press investigation now builds on his data. It reported yesterday that although lead remains a serious problem in school drinking water, it's far from the only one. "The most frequently cited contaminant was [coliform bacteria](#), followed by lead and [copper](#), [arsenic](#) and [nitrates](#)," AP found. Its reporters pored over a decade's worth of drinking-water violations racked by the nation's schools and compiled in an Environmental Protection Agency database.

"The contamination is most apparent at schools with wells, which represent 8 to 11 percent of the nation's schools," AP reports. "Roughly one of every five schools with its own water supply violated the [federal] Safe Drinking Water Act in the past decade."

But the really sobering issue is that AP's report addresses only those violations that were uncovered. Edwards, an environmental engineer who focuses on plumbing issues, notes that schools are not, for instance, required to disclose the presence of any lead in water coming out of their taps and water fountains. Reporting is voluntary, and — surprise, surprise — many schools have chosen not to report a problem that they lack the budget to correct. He found that some schools, likely fearing what they might find, deliberately choose not to test for lead.

In the new AP analysis, coliform bacteria topped the list of water contaminants. These bugs don't usually make people sick. It depends on which germs turn up in water. But their presence serves as a marker of fecal contamination (which is yucky, if not outright risky).

Lead is a more subtle problem, but a biggie. As we noted in a [story](#) four months ago, this toxic metal's ability to lower IQ now appears to be much greater when exposures occur in early school-age children than in toddlers. Early lead exposures can also reduce the tissue volume in areas of the brain that persist into adulthood. Which regions? Only those linked to judgment, impulsivity and mood. And as I reported in that June story, "size of affected brain areas — the reduced number of cells in them — tracked best with lead exposures at ages 5 and 6." School age.

We can only hope that investigations, like the new AP analysis, will galvanize resolve to do for drinking water what public outrage did for leaded paint and gasoline: Get the toxicants out. To do that, we need mandatory testing of school water supplies — and mandatory reporting to parents and government officials of what turns up.

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