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Can water fountains fight fat?

By [Coco Ballantyne](#) in [60-Second Science Blog](#)



Here's something to drink to: easy access to [water](#) fountains and a nudge from teachers to use them might help kids stay [lean](#). A new study published today in *Pediatrics* suggests that installing fountains in elementary schools and pushing students to drink more water may reduce their risk of being plump by as much as a third.

"Drinking fountains won't solve the [obesity epidemic](#), but they could be effective components of the solution," says study co-author Rebecca Muckelbauer, a nutritionist at the Research Institute of Child Nutrition Dortmund in Dortmund, Germany.

Muckelbauer and her colleagues studied the [water-drinking](#) habits of nearly 3,000 second and third graders attending schools in the neighboring cities of Dortmund and Essen during the 2006-2007 academic year. At the beginning of the school year, the researchers had water fountains installed in 17 of the schools and worked with teachers to implement educational programs to promote water drinking. (In contrast to U.S. schools, few German schools actually

have water fountains, according Muckelbauer). The researchers surveyed the children about their drinking habits and measured their heights and weights at the beginning and end of the school year.

Over the school year, children in the schools given fountains upped their water consumption from about three to four cups per day, while those in the other schools continued to drink an average of three cups daily. Over the course of the study, the number of [overweight children](#) increased from 384 to 385 out of 1,641 (23.4 to 23.5 percent) at the schools with fountains; in contrast, the number of fat kids at the other schools jumped from 339 to 364 out of 1,309 (25.9 percent to 27.8 percent), Muckelbauer says.

She notes that [some studies](#) suggest that drinking water increases the rate at which calories are burned, while others have hinted water may temporarily decrease appetite. Chugging water might also lead to drinking less calorie-packed [juice](#) and [soda](#), but Muckelbauer says her study found no significant changes in juice or soft drink consumption.

But beware, consumers: what's good for kids in Germany may not be good for kids in the U.S., where school drinking fountains may expose them to dangerous concentrations of [lead](#) ([linked to brain damage](#)). [Studies](#) from various states suggest that [some public schools](#) have drinking water containing lead concentrations exceeding the Environmental Protection Agency's limits. "Drinking water fountains," says [Irena Cech](#), an environmental and occupational health professor at the University of Texas School of Public Health in Houston, "might be an unanticipated, unappreciated, and unnecessary source of intake of lead."

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