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Chemical toxin found in milk

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A rocket-fuel chemical that has polluted Inland water supplies has been found in milk from cows and humans, a scientific journal reported Friday.

Tests by Texas Tech University scientists found the chemical perchlorate in seven samples of cow's milk purchased in Lubbock, Texas, grocery stores, according to Environmental Science & Technology, an American Chemical Society journal.

The scientists found trace amounts of perchlorate up to 6 parts per billion, which is comparable to levels reported in Inland drinking-water supplies. They also tested a single sample of human breast milk and found perchlorate at 3 to 4.5 parts per billion. The research comes after studies completed in May that found trace levels of perchlorate in lettuce gathered in California grocery stores and Imperial Valley farm fields.

Perchlorate is an explosive salt used in making rocket fuel, ammunition, road flares and other products. It easily mixes with water. Pollution from military facilities and defense-contractor factories has contaminated the Colorado River and hundreds of other groundwater sources nationwide. Perchlorate exposure can impair thyroid function, which then can compromise physical and mental development of fetuses and newborns, the U.S. Environmental Protection Agency has said. The discovery of perchlorate traces in cow and human milk raises concerns that infants can be exposed, lead author Andrea B. Kirk said by telephone. "It's a very sensitive development period," she said.

But researchers have not reached a consensus on whether the trace amounts found in drinking water and food are harmful.

Perchlorate is unregulated, but state and federal officials are developing standards for drinking water.

California has an "action level" for drinking water of 4 parts per billion. Water agencies are encouraged to notify consumers when tap water carries at least that much perchlorate, and some agencies have shut wells that reach that concentration.

The milk study shows that regulators should focus more on food contamination, Kirk said. "From the regulatory standpoint, not much consideration has been given to intake from sources other than water," said Kirk, a doctoral student in environmental toxicology.

In May, the U.S. Department of Agriculture said it would test several food crops for perchlorate. USDA officials could not be reached Friday, when federal offices in Washington, D.C., remained shut because of Hurricane Isabel.

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