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Low Levels of Radiation Found in American Milk

By **MATTHEW L. WALD**

Tests of milk samples taken last week in Spokane, Wash., indicate the presence of radioactive iodine from the troubled Fukushima Daiichi nuclear plant in Japan, but at levels far below those at which action would have to be taken, the [Environmental Protection Agency](#) said on Wednesday.

Radioactive materials in liquids are measured in pico-curies per liter, and the sample, taken March 25, showed a reading of 0.8 pico-curies, the agency said. Those numbers, it said, would have to be 5,000 times higher to reach the “intervention level” set by the [Food and Drug Administration](#).

“These types of findings are to be expected in the coming days and are far below levels of public health concern, including for infants and children,” the environmental agency said.

Levels of iodine 131 entering the air can be very diluted, but if the iodine is deposited on grass eaten by cows, the cows will reconcentrate it in their milk by a factor of 1,000. This is mainly a concern with fresh milk, not for dairy products that are stored before consumption.

Iodine 131 has a half-life of eight days, meaning that every eight days it loses half its strength. Since production of iodine 131 stopped when the Fukushima reactors shut down on March 11, it has already been through two half-lives and could easily be halved once or twice more again before the milk is consumed as cheese or yogurt.

Iodine 131 emits beta particles, which resemble electrons. They are not considered a major hazard outside the human body, although in large doses, they can damage the cornea of the eye.

The problem arises when materials that emit beta particles are ingested or inhaled. Iodine 131 is chemically identical to normal, nonradioactive iodine and thus is absorbed into the body just as normal iodine is, mainly in the thyroid gland, where it delivers a concentrated dose to that small organ and can cause [cancer](#).

In the Chernobyl nuclear accident of 1986, the biggest health effect was cases of **thyroid cancer**, especially in children living near the nuclear plant in Ukraine.