Mercury in Women, Young Children: CDC Report Reassuring

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The way some groups discuss the risk of exposure to mercury one might think that all Americans face a variety of immediate, dire health consequences. In particular, some groups have warned that Americans should avoid all fish likely to contain any mercury. But with mercury, as with any toxic compound, the danger is proportional to the dose to which a person is exposed. The segment of the population that is most likely to be affected by mercury exposure includes young children and women of childbearing age. Such women are concerned because mercury exposure, at high enough doses, can have negative developmental effects on babies in utero. Similarly, young children, who are growing and developing, could also undergo developmental damage if mercury exposure is excessive.

Thus, a report published by the Centers for Disease Control and Prevention (CDC) should help allay Americans’ fears about the extent of mercury exposure of these particularly vulnerable groups. That report summarizes data collected over a four-year period (1999-2002) on over 3,600 women between the ages of sixteen and forty-nine and nearly 1,600 children between one and five years old. These people had their blood sampled as part of the ongoing National Nutrition and Health Examination Survey (NHANES). Mercury levels in the samples were measured and compared to a reference level (5.8 parts per billion or ppb) assumed to be without adverse effects by the Environmental Protection Agency (EPA).

The good news is that very few of the subjects in the NHANES study had blood levels approaching even the 5.8 ppb reference dose. Of the women between sixteen and forty-nine years of age, only 5.66% had blood mercury levels greater than or equal to the 5.8 ppb reference dose. There were differences between ethnic groups noted: of the Mexican-American women only 1.7% reached or exceeded the reference dose, while 4.8% of non-Hispanic black women and 5.77% of non-Hispanic white women did so. There were not enough young children in the sample to reliably determine a national population estimate. However, the levels in the children sampled ranged from 0.29 ppb for white, non-Hispanic children to 0.50 ppb for black, non-Hispanic children. All these levels are well below even the conservative EPA reference dose levels.

As the NHANES surveys continue (new data are added in two-year cycles), we will be able to track mercury levels in the American population with increasing confidence. But in the meantime, we should find some reassurance in the current results and resist intemperate alarms asserting that current levels of mercury are poisoning us. Those who are concerned about consumption of fish should check the advisory on the website of the Food and Drug Administration and not simply avoid consuming such healthful foods.

(1) NHANES is a continuous survey of the health and nutritional status of civilian, non-
institutionalized Americans. Participants have physical examinations (including blood samples) and take part in household interviews.

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