

EXECUTIVE SUMMARY

Mercury from power plants and other sources contaminates our oceans and marine life, including yellowfin and other commercially important tuna species. Consequently, canned tuna is now a major source of mercury in our diets.

Tuna, especially canned tuna, is the most popular fish among American consumers and a staple in the diet of many children. Americans have long demanded that their tuna be “dolphin-safe,” but mounting evidence of high levels of mercury in tuna and other fish raises another serious concern: Is our tuna human-safe?

Mercury is a potent poison linked to human health problems ranging from brain damage and neurological impairment in children to memory loss and heart attacks in adults. Mercury from power-plant emissions and other industrial sources is deposited in our oceans and waterways, where it accumulates in the bodies of fish in the form of methylmercury. Eating contaminated fish is the most significant source of exposure to methylmercury for humans. Recent studies suggest hundreds of thousands of babies born each year are exposed to excessive levels of methylmercury at the most vulnerable period of their lives—before they even leave the womb.

Given its popularity, canned tuna is the largest dietary source of mercury exposure in the United States.

Testing the Limits

In response to the growing evidence of risks associated with mercury, the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) issued guidelines on the consumption of tuna and other fish in 2004. Defenders of Wildlife, long a champion of the dolphin-safe-labeling program and an advocate for healthy and environmentally sound fisheries worldwide, is concerned that these guidelines are not protective enough. The government based their most

recent guidelines on tests of mostly American brands of tuna, even though a growing proportion of the canned tuna consumed today in the United States is imported. In 2004, for example, 51 percent of the total U.S. supply of canned tuna came from foreign sources.

Defenders conducted this study to determine whether all canned light and albacore tuna is similar in mercury content, as the current federal guidelines suggest. We also wanted to look at how factors such as country of origin, fishing method, size and species composition of the tuna might affect the amount of mercury in each can. We commissioned independent testing of 164 cans of tuna collected from both large chains and smaller independent groceries around the country. Our study included not only U.S.-processed tuna, but also tuna canned in Costa Rica, Ecuador, Malaysia, Mexico, the Philippines, Thailand and other countries—making it the first study of imported canned tuna in the United States.

Disturbing Results

Our testing results revealed high levels of mercury in canned tuna, including light tuna, which the FDA has categorized as a “low-mercury fish.” A significant proportion of light tuna we sampled contained levels of mercury high enough to pose a potential public health risk, particularly to children and developing fetuses. More than one-third (35 percent) of all cans in our sample had mercury levels above 0.3 parts per million



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(ppm). Eating just one six-ounce can of this tuna a week would cause a 140 pound woman—and nearly all children—to exceed the EPA’s “reference dose” for mercury. In fact, based on this study, a 45-pound child eating one can of light tuna in a week would be consuming mercury at a level three times higher than the EPA’s recommended maximum allowable dose of mercury. This is particularly alarming because tuna is a staple of federal efforts such as the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and the school lunch program. Currently, canned tuna is the only animal meat protein source offered by the U.S. Department of Agriculture and state WIC programs, with the exception of the WIC programs offered in Alaska and Hawaii. By promoting tuna as a major source of protein through these programs, the government may be inadvertently putting low-income women and children at greater risk of mercury exposure.

Mercury levels in the samples tested varied widely. While light tuna from Asia was generally low in mercury, average levels of mercury found in the Latin American tuna tested were surprisingly high—more than 0.4 ppm. Samples from one country, Ecuador, had an astounding 0.75 ppm average mercury content. By comparison, the FDA/EPA advisory recommends that consumers avoid king mackerel, a fish with an average mercury level of 0.73 ppm. More troubling, several of the cans from Latin America reached levels over the 1.00 ppm “action level” at which the FDA can pull tuna from supermarket shelves to protect public health. One can had 1.50 ppm of mercury, and nearly one in every 20 cans of light tuna exceeded the 1.00 ppm FDA action level.

The Dolphin-Safe, Family-Safe Link

In the eastern Pacific Ocean, pods of dolphins routinely swim with large, mature yellowfin tuna. Some commercial fishing vessels exploit this relationship by setting purse-seine nets on dolphins to catch the large tuna swimming below. Since mercury concentrations in fish increase with the size and age of the fish, and tuna caught in dolphin ‘sets’ are generally the oldest and largest tuna, it is reasonable to infer that this ‘dolphin-unsafe’ fishing method results in tuna with higher mercury concentrations than tuna caught by other means.

Our study found that tuna from two countries with a documented history of dolphin-unsafe fishing, Ecuador and Mexico, had the highest mercury concentrations of all samples tested. The disproportionately high mercury levels in these samples suggest that some countries are not only violating international dolphin-protection standards, but also creating a significant health risk for consumers. While the evidence is not conclusive, our data support further investi-

gation into this possibility—especially since some minority and immigrant groups may favor tuna from these countries. Our results also suggest that Bush administration’s efforts to weaken the dolphin-safe label may have serious and unintended consequences for public health.

A Call for Action

The high levels of mercury found in certain types of canned tuna pose a health threat to families, primarily to women and their children. Consumers have no way of knowing the mercury levels of the tuna because it is nearly impossible to determine what species of tuna the product is made from, the size and age of the fish, where the fish was caught or what method was used to catch it. The current federal guidelines do not address these critical factors. Therefore, we urge our government to take the following steps to protect consumers:

1. Conduct a more thorough assessment of the mercury content in canned tuna by looking at the growing market of imported canned tuna and paying greater attention to the higher mercury levels found in Latin American varieties.
2. Issue warnings for canned light tuna equivalent to those for albacore tuna (six ounces per week maximum) until the FDA can conduct more comprehensive tests on imported tuna. Advise parents to limit their children’s consumption of canned tuna to three ounces (half a can) or less per week. This would better protect vulnerable populations and serve as a responsible model for state advisories.
3. Reassess the role of canned light tuna in government food-support programs such as WIC and the federal school lunch program.
4. Effectively enforce the FDA’s 1.00 ppm action level for the sale and importation of canned tuna and other fish with excessive levels of mercury. In addition, update and extend the FDA’s Hazard Analysis and Critical Control Point (HACCP) guidelines to recognize mercury as a likely hazard and require seafood industry controls to monitor for high mercury content in fish.
5. Investigate the potential link between environmentally destructive dolphin ‘sets’ and mercury concentrations.

In conclusion, it is the government’s duty to make America’s favorite fish family-safe and provide consumers with the information they need to make informed choices. The government should keep canned tuna with excessive mercury off the market and give consumers clear and well-researched advice on tuna consumption to protect us from unacceptable exposure to mercury—regardless of where we live or what kind of tuna we can afford.