

Former EPA Administrator Michael Leavitt says the reason the government didn't make the mercury-in-fish advisory tougher was to avoid scaring people away from fish. "Mercury is bad and fish is good. We needed to choose the right words that would give people a sense of knowledge without creating unwarranted fear," says Mr. Leavitt, now head of the Health and Human Services Department. He adds that scientists, not bureaucrats, worked out the guidelines, reconciling the varying views of FDA and EPA researchers.

The EPA senior scientist handling that reconciliation, Rita Schoeny, says there is no way to know for sure whether people who follow the fish advisory and consume more mercury than the EPA's limit are actually safe. Asked whether she agreed with what the advisory said about tuna, she didn't respond except to say: "I think what we have in the advisory is good public-health advice."

At Bumble Bee Seafoods, executive vice president John Stiker acknowledges the federal tuna-eating advice could lead some people to exceed the EPA safe level for mercury. But he says it's not a big problem because the average American eats only 10 servings of tuna a year, and just 35% of that is the higher-mercury type, albacore.

Food companies have long lobbied to mitigate any FDA action on canned tuna, one of the top-grossing supermarket items in revenue per unit of shelf space. Five years ago, after risk assessments by the EPA and the National Academy of Sciences raised fresh worries about mercury, the FDA began preparing to revise a 1979 advisory that said it was all right to consume four micrograms of mercury a day per 22 pounds of body weight -- four times the EPA's maximum.

Food companies urged the FDA not to single out canned tuna. In private meetings with FDA officials in fall 2000, industry and agency documents show, the industry argued that health data were inconclusive, that citing canned tuna would drive down its consumption by 19% to 24%, and that seafood producers "would face the distinct possibility of numerous class action lawsuits."

A strict advisory "could have an irreversible impact on American dietary habits, profoundly affecting consumers and producers of seafood and resulting in significant segments of the population turning away from the proven health benefits of fish consumption," said a 2000 letter to an FDA commissioner from three trade groups: the National Food Processors Association, the National Fisheries Institute and the U.S. Tuna Foundation.

When the FDA issued a revised mercury advisory in 2001, it urged women of childbearing age to shun four high-mercury species: swordfish, shark, king mackerel and tilefish from the Gulf of Mexico. It didn't mention tuna. Yet cumulatively, according to data provided by the EPA, the four species it urged avoiding account for less than 10% of Americans' mercury ingestion from fish, while canned tuna accounts

Federal Fish Advisory

Excerpt from the 2004 joint FDA-EPA advisory on mercury in fish for women who are pregnant or might become pregnant, nursing mothers and young children

By following these 3 recommendations for selecting and eating fish or shellfish, women and young children will receive the benefits of eating fish and shellfish and be confident that they have reduced their exposure to the harmful effects of mercury.

1. Do not eat Shark, Swordfish, King Mackerel, or Tilefish because they contain high levels of mercury.

2. Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.

Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.

Another commonly eaten fish, albacore ("white") tuna has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.

3. Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.

Follow these same recommendations when feeding fish and shellfish to your young child, but serve smaller portions.

for about 34% of it.

Echoing industry arguments, FDA scientists also rejected the study of fish eaters in Denmark's Faroe Islands, saying dietary differences made the data inapplicable to Americans. The FDA stood by its 1979 mercury-consumption limit that was much higher than the EPA's.

Some EPA scientists griped that FDA officials were coddling food companies. "They really consider the fish industry to be their clients, rather than the U.S. public," charges Deborah Rice, a former EPA toxicologist now working for the state of Maine. The FDA's Dr. Acheson denies that commercial concerns played a role in the agency's decision making.

Change of Course

In April 2003, his agency changed course, following years of prodding by health advocates, some members of Congress and the agency's own outside food advisory panel. The FDA said it would base future mercury warnings on the EPA's stricter limit. Late in 2003, FDA and EPA officials proposed their first joint mercury advisory at a meeting of the FDA's Food Advisory Committee.

At the hearing, FDA scientists said they had put fish in three categories: high in mercury, medium and low. The level for the low-mercury group was that of canned light tuna, explained FDA official Clark Carrington. "In order to keep the market share at a reasonable level, we felt like we had to keep light tuna in the low-mercury group," he said, according to the meeting's official transcript.

Later, the FDA's Dr. Acheson reiterated that point. He told the meeting the fish categories "were arbitrarily chosen to put light tuna in the low category."

Says Maine's Dr. Rice: "Here's the FDA making what are supposed to be scientific decisions on the basis of market share. What else is there to say?"

Asked about this, Dr. Acheson gives a different reason why the low-mercury group was pegged to light tuna. He says it was because a woman weighing 140 pounds could eat 12 ounces of it a week and stay at or below the EPA reference dose.

The FDA's outside advisory panel asked the agencies to rework the advisory, saying it didn't adequately spell out mercury risks from canned tuna. In particular, members of the panel urged a specific warning about the higher-mercury albacore tuna.

But food processors lobbied the administration. At the White House, they implored officials not to single out albacore. They said doing so would only drive people, especially the poor, to eat more junk food, says a scientist who was there.

In meetings with companies, there are indications administration officials sometimes expressed views not in sync with those of all agency scientists.

At the EPA, three companies met with Steve Johnson, then deputy administrator, on Feb. 23, 2004. The three were the StarKist unit of **Del Monte Foods** Co.; Chicken of the Sea, part of Thailand's Thai Union Frozen Products PCL; and Bumble Bee, which is owned by Connors Bros. Income Fund in Toronto.

The three companies later wrote to then-EPA chief Mr. Leavitt that Mr. Johnson -- who now heads the agency -- had assured them that "the EPA did not consider any children to be at risk from mercury poisoning." An EPA spokeswoman denies Mr. Johnson said that. Asked about the denial, Bumble Bee's Mr. Stiker said, "I was at the meeting. It was clear that that was said at the meeting by Steve Johnson and others in that room.... We were assured the EPA did not consider any U.S. children to be at risk of mercury poisoning."

The FDA tested the planned advisory with focus groups of women of childbearing age, the target of the warning. Some complained they didn't understand the vague advice to give kids "smaller portions." Others said the advisory was ambiguous because it encouraged them to eat fish but not too much.

'His Brain Food'

Like many parents, the Davises in San Francisco always thought fish was great. They knew it was high in omega-3 fatty acids, which they understood could help brain development. They were delighted, Ms. Davis says, when Matthew started eating what she calls "his brain food" for lunch and snacks.



Matthew Davis

It struck Matthew that something was wrong one day at recess, he says, when his buddy Zach could suddenly catch and throw a football much better than he could. He remembers his father, a little while later, getting frustrated when his son couldn't hit a baseball. "I kept telling Dad I was rusty," Matthew says.

After the meeting with his teachers, the Davises spent thousands of dollars on tutors, but still Matthew struggled. A specialist gave him a diagnosis of "mixed learning disability," which just made his parents mad because they had watched him do so well in school before.

Then Matthew's father happened to read an article in the San Francisco Chronicle describing adults with similar problems as a possible result of eating too much swordfish, tuna steaks and other high-end fish in restaurants. Ms. Davis remembers bolting to the pantry and throwing away eight pouches and 20 cans of StarKist albacore tuna.

Spokeswomen for StarKist and Chicken of the Sea referred questions to the U.S. Tuna Foundation. The trade group's executive director, David Burney, says the study of mercury in heavy fish eaters of the Faroe Islands had found only minor effects in kids. It wasn't as if they "couldn't function in school," he says, adding: "There is no connection between a learning disability and mercury."

The notion that chronic, low-level mercury exposure can diminish children's learning capacity was affirmed in 2000 by a panel of experts convened by the National Academy of Sciences. Citing "a large body of scientific evidence showing adverse neurodevelopmental effects" on children from mercury, the NAS panel endorsed the EPA's choice of the 1997 Faroe Islands study, led by Philippe Grandjean of Harvard, as the basis for the agency's reference dose.

It noted that a similar study of fish eaters in the Seychelles Islands in 1998 hadn't found any effects on childhood development from mercury-tainted fish, but concluded the Faroe Islands results were more reliable because they were firmly supported by other studies.

Matthew Davis's symptoms -- declines in concentration, coordination and learning ability -- were classic signs of mercury toxicity, says one of his doctors, Jane Hightower, who has published studies of such toxicity in her patients. She notes that in some kinds of fish, mercury content varies widely, exposing diners to random spikes. In chunk light tuna and snapper, some samples had seven times as much mercury as the average for the species, as measured by the FDA. Certain samples of canned albacore tuna showed a spike to 2½ times the average.

As for the fresh and frozen tuna found in tuna steaks, its mean mercury level was comparable to that of canned albacore.

Industry Marketing

The tuna industry has continued to aim some marketing at pregnant women and kids. An ad sponsored by the U.S. Tuna Foundation last year, which specified the new federal consumption guidelines, reassured "pregnant and nursing women and young children" that canned tuna "is absolutely safe to eat." Extolling the benefits of fish's

omega-3 fatty acids for babies' eyes and brains, the ad said: "No government study has ever found unsafe levels of mercury in women or young children who eat canned tuna."

By "unsafe levels," says the foundation's Mr. Burney, the ad wasn't referring to mercury above what the EPA declares safe, but to the actual blood-mercury level of Faroe Islands infants. That level is 10 times as high as the EPA's safe level.

Mr. Burney maintains that no Americans come close to having a toxic level of mercury in their blood. Accordingly, he rejects the notion that Matthew Davis or anyone else could get mercury poisoning from eating canned tuna. "That's the dumbest thing I've ever heard in my life," Mr. Burney says.

Bumble Bee's Mr. Stiker, when told of Matthew's problem, said it didn't make sense to him because only early-childhood development can be affected by trace amounts of mercury. "The hype has far outstripped the science" on mercury in fish, he said, with the result that canned-tuna sales are falling more than 10% a year. "We're getting killed because of this perception," he said.

Today, nearly two years after Matthew quit eating albacore tuna, his blood-mercury level is zero and his condition is dramatically improved. Although his doctors don't know if he had any permanent damage, signs so far are that he didn't. Sports and homework come much easier again. Matthew played the lead in a local performance of "Charlie and the Chocolate Factory." He is writing stories again.

His mother wrote about her son's struggle for the school newsletter. The family hasn't consulted a lawyer and doesn't plan to sue anyone, Ms. Davis says. But "I think about what I could have lost, and it makes me angry," she says.

The American Medical Association called on the FDA a year ago to consider requiring stores to post warnings and mercury-content data wherever fish is sold. Dr. Acheson of the FDA says the agency opposes mandated warning labels or market postings. "We feel the best way to get the word out is via the advisory," he says, calling it "an optimal balance between the benefits of eating fish and the risks of mercury."

Write to Peter Waldman at peter.waldman@wsj.com¹⁰

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