How worried should you be about getting health and nutrition advice on seafood from Consumer Reports? Very.

The last time the gadget-testing magazine dispensed seafood advice to pregnant women the Food and Drug Administration took the extraordinary step of calling them out by name.

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Health / How Worried Should You Be About Mercury In Your Tuna?

How Worried Should You Be About Mercury in Your Tuna?

CR tested canned tuna from BumbleBee, Chicken of the Sea, StarKist, and other popular brands. Here's our advice for pregnant people, and everyone else.

By Lauren Kirchner
Data visualizations by Andy Bergmann
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Photo Illustration: Chris Griggs/Consumer Reports, Getty Images

FDA

What the Experts at the FDA Are Saying: "[T]he methodology employed by Consumer Reports overestimates thenegative effects and overlooks the strong body of scientific evidencepublished in the last decade." "The Consumer Reports analysis is limited in that it focuses exclusively onthe mercury levels in fish without considering the known positive nutritionalbenefits attributed to fish." "The current science no longer supported categorizing fish solely by mercurylevels."

Should have stopped right there. The article would have done a lot less damage to expecting moms and public health.

Cheap, convenient, and full of protein and essential omega-3 fatty acids, canned tuna is a classic staple in kitchen cabinets, delis, and school lunchboxes across the country. About a third of Americans eat it two or more times a month, according to a November 2022 nationally representative Consumer Reports survey (PDF) of 2,185 U.S. adults, and about 10 percent eat it at least once a week.

But CR's food safety experts caution that our current tests, along with our previous work and research from other groups, suggest that pregnant people may be best off avoiding tuna altogether. That's because, while canned tuna, especially light varieties, has relatively low average levels of mercury, individual cans can sometimes have much higher levels. "From can to can, mercury levels can spike in unpredictable ways that might jeopardize the health of a fetus," says James E. Rogers, PhD, director of Food Safety Research and Testing at CR.

This is a truly reckless and irresponsible claim to publish, and it flies in the face of the scientific consensus and standing advice from the USDA, FDA, and top expert groups like the American Heart Association.

And yet Consumer Reports is telling the people who need it most to avoid it. Truly irresponsible.

Tuna isn't the biggest fish in the ocean, of course, but it's one that is extremely popular and eaten very often by kids and adults of all ages. Canned tuna is the only seafood in some people's diets. So that's why mercury contamination is such a concern in this particular fish.

In 2017, the Food and Drug Administration issued new, stricter guidelines about which fish are recommended if you are or could become pregnant. Under the FDA guidelines, those vulnerable groups could eat up to 12 ounces (3 servings) of light tuna or 4 ounces (1 serving) of albacore per week, assuming they ate no other fish. (Note that 4 ounces is the amount in a typical 5-ounce can of tuna; the remaining ounce is water or oil.)

CR doesn't mention that they had to update the story linked to here after FDA again pushed back on their dangerous advice to pregnant women.

Hansen did his Ph.D. in something called "integrated pest management." He isn't a health care provider, or a nutrition scientist, or an expert on pregnancy or child development.

After analyzing our current test results, CR's food safety experts advice remains the same: "We are still concerned that the variation we see from can to can makes tuna too risky for pregnant people and suggests everyone should take some precautions," says Michael Hansen, PhD, a senior scientist at CR.

These passages show beyond a shadow of a doubt that CR's recommendations aren't just unscientific, they're innumerate and show a basic lack of understanding of how simple statistics work.

Though mercury levels in light tuna tend to be low on average, it's clear from CR's data that there can be unpredictable spikes of the toxin in individual cans.

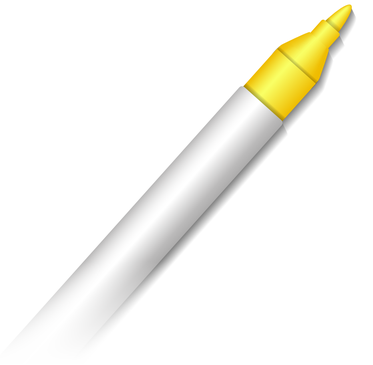
Of the 30 samples total, we found six individual spikes in mercury content that would change the FDA's recommendation about how often someone should eat that particular tuna. That's 20 percent of the samples, or one in five cans. That's the same percentage we found when we analyzed the FDA's data on tuna in 2014.

If this Consumer Reports staffer were a student this quote alone would be reason enough to flunk him in science, nutrition, and statistics. Consider that the exact same logic applies to omega-3s and other vitamins and minerals in tuna: There will be natural variations from can to can, and you "can't tell just from looking" how much of those beneficial nutrients a given serving contains. Thankfully real experts make policy and give advice based on large data sets and sound statistics — remember means, medians, modes, and distributions from math class? — and not by cherrypicking outliers in an effort to scare consumers.

Those variations are concerning, Hansen says. "You may know that in general light tuna has less mercury than albacore, but you can't tell by just looking how much mercury a specific can has," he says.

It isn't just Bumble Bee noting this, it's a reflection of government scientists own "Net Effects" report, which looks at over 100 peer-reviewed studies and concludes definitively that the benefits of eating seafood outweigh any hypothetical risks. Consumer Reports stands in defiance of this massive body of science.

Bumble Bee noted that the "health benefits of consuming seafood far outweigh any potential risk, including concerns about mercury."



BOTTOM LINE:

Mercury in canned tuna is not a concern for anyone, including expecting moms.

But don't just take our word for it. Here is just some of the recent, peer-reviewed science that undermines Consumer Report's analysis.

Mercury exposure in pregnant women and children

• Mercury emissions have actually plummeted in recent years, declining 64 percent between 2011 and 2020. This has significantly reduced the amount of mercury that "large, long-lived fish" accumulate, according to a 2016 study. Seafood consumption also accounts for less than half the mercury we obtain through our diets.

• The authors of a 2016 analysis summed up the FDA's net effects results simply enough: "About 120 light tuna sandwiches would need to be consumed each week before reaching the minimum [methylmercury] exposure for adverse cognitive effects to be expected." Mom would have to eat a little more than 17 tuna sandwiches per day (or 164 ounces a week) for her baby to face any measurable risk.

• A pair of systematic reviews published in December 2019 found that pregnant women who ate higher quantities of seafood—**more than 100 ounces per week in some cases**—gave birth to children who experienced significant benefits in neurocognitive development. In seven of the reviewed studies, IQ gains ranged from 4.8 to 9.5 points when children and their mothers consumed the highest quantities of seafood.

The researchers **were unable to find** "evidence for any net adverse effects of seafood on neurocognitive development even at the highest levels of intake." In 22 of the reviewed studies, maternal mercury exposure exceeded the EPA's safety threshold, "often by many times." Higher mercury levels were actually associated with improvements in neurocognitive development in 45,957 mother-infant pairs spanning seven studies. Contra the latest FDA-EPA guidelines, the reviewers added that they found

"... no evidence to support an upper limit of 12 oz/wk of commercial seafood *(i.e., evidence that exceeding this intake was associated with harm)."*

Mercury exposure in US adults

December 2021 JAMA paper examining the association between blood mercury levels and mortality risk in adults.

"In this large, nationally representative population, **usual seafood consumption was not associated with the risk of mortality**. Consistent with a previous report from 2011 to 2016, the current mercury exposure level in US adults was similar to the low level previously reported in central Europe but much lower than that in other European countries that have high fish consumption; the low to moderate level was steady during the past 10 years.

In addition, at the current low to moderate level of mercury exposure, **higher blood mercury concentrations were not associated with risk of all-cause or CVD-related mortality among US adults** after adjustment for demographic, socioeconomic, dietary, and lifestyle factors; health status; and family history of CVD. Moreover, the lack of association between blood mercury concentrations and mortality was independent of dietary EPA and DHA intake or selenium intake. These findings do not support an association of usual levels of concentrations to environmental mercury with mortality among US adults."

"At the current mercury exposure levels in US adults, **this study does not suggest a need to change the current dietary guidelines that recommend seafood consumption as part of a healthy diet for US adults** in terms of concerns about the cardiovascular effects of mercury."