

Got Mercury?

A Project of Turtle Island Restoration Network



Mercury Policy Project

July 15, 2010

Carole Davis
Co-Executive Secretary
Dietary Guidelines Advisory Committee
USDA Center for Nutrition Policy and Promotion
Room 1034
Alexandria, VA 22302

Regarding: Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010

Dear Dietary Guidelines Advisory Committee,

On behalf of GotMercury.org, a project of the Turtle Island Restoration Network, and the Mercury Policy Project, a project of the Tides Center, both 501 (c) 3 organizations dedicated to protecting the environment and the public from mercury, we would like to extend our gratitude to the Committee for allowing the public to provide comment on the Report of the Dietary Guidelines Advisory Committee (DGAC).

GotMercury.org is a public health education campaign that works to protect consumers from mercury in seafood. GotMercury.org hosts an online calculator that uses the EPA formula for mercury exposure with the FDA published data on mercury in seafood. The calculator estimates mercury exposure from fish based on the EPA and FDA average mercury levels in fish species depending on an individual's weight and the portion size.

The Mercury Policy Project (MPP), was founded in 1998 and since then has worked continuously to raise awareness and promote policies to reduce and where feasible eliminate mercury uses, reduce the export and trafficking of mercury, and significantly reduce mercury exposures at the local, national, and international levels.

In the five years since the 2005 Dietary Guidelines for Americans was published, GotMercury.org and MPP have become even more concerned about the high levels of mercury found in certain species of fish. The lack of information to populations most at risk of suffering from the harmful effects of mercury, women and children and low income and environmental justice communities is of special concern to MPP and GotMercury.org

Since 2005, numerous scientific studies have been published outlining the problem of mercury in seafood, yet the policies in place continue to fail to protect Americans from mercury in fish and do not reflect current data.

GotMercury.org and MPP respectfully encourage the Dietary Guidelines Advisory Committee to make the health of women and children a greater priority than the profits of the fishing industry which stands to make a profit by selling high-mercury fish to unsuspecting people.

GotMercury.org and MPP submit the following comments on the Report of the Dietary Guidelines Advisory Committee, 2010.

Part D. Section 8. Question 9. What are the Benefits in Relationship to the Risks for Seafood Consumption?

In the conclusion of the report of the DGAC section on Seafood, the Committee states “Moderate, consistent evidence shows that health benefits derived from the consumption of a variety of cooked seafood in the US in amounts recommended by the Committee outweigh the risks associated with methyl mercury (MeHg) and persistent organic pollutants (POPs) exposure, even among women who may become or who are pregnant, nursing mothers, and children who are ages 12 and younger. Overall, consumers can safely eat at least 12 oz. of a variety of cooked seafood per week provided they pay attention to local seafood advisories and limit their intake of large, predatory fish.”

This statement is not consistent with the 2004 FDA/EPA mercury advisory that clearly says: “Do not eat Shark, Swordfish, King Mackerel, or Tilefish because they contain high levels of mercury.” To suggest that women and children merely “limit their intake of large, predatory fish” is potentially putting them at risk and not consistent with the current Federal advisories.

GotMercury.org and MPP suggest editing the Committee statement by removing “limit their intake” to “women who may become pregnant, pregnant women, nursing mothers, and young children should not eat shark, swordfish, king mackarel or tilefish due to high mercury levels.”

GotMercury.org and MPP also suggests that the Committee review current mercury studies that have found the problem with mercury in fish is far more prevalent and a much greater risk than previously thought, with adverse exposure effects now associated with ordinary levels of fish consumption by American women of childbearing age. The following studies further document increased risks to children, particularly from methylmercury exposure in the womb:

- When the Faeroe Islands epidemiological study was reanalyzed, the adverse effects of methylmercury were determined to be about twice as large.¹
- The Seychelles Islands epidemiological study reported methylmercury damage for the first time to the developing nervous system in their study cohort.²
- Ongoing epidemiological studies in Boston³ and New York⁵ have measured cognitive development with maternal fish consumption during pregnancy, and found adverse effects of elevated methylmercury exposure.

Studies show that low-income and people of color are exposed to higher levels of mercury than more affluent families. African and Mexican-American children had higher hair mercury levels than Caucasian children, corresponding to the amount of fish consumed per week.⁶

According to the EPA, the number one source of mercury exposure is through the consumption of mercury-contaminated fish. By failing to inform people to not eat large, predatory fish the Committee is putting the American population at risk for increased levels of mercury exposure.

Other significant studies that highlight the dangers of mercury in predatory fish and lack of risk communication include a study published in the February 2010 issue of the *Environmental Toxicology & Chemistry* regarding mercury levels in canned tuna. It is a well-established fact that tuna is a predatory fish, yet despite evidence showing tuna has

¹ Budtz-Jørgensen, E., Grandjean, P., Weihe, P., 2007. Separation of risks and benefits from fish consumption. *Environ. Health Perspect.* 115, 323-327. Also, Budtz-Jørgensen, E., Keiding, N., Grandjean, P., 2004. Effects of exposure imprecision on estimation of the benchmark dose. *Risk Anal* 24, 1689-1696.

² Davidson, P.W., Strain, J.J., Myers, G.J., et al., 2008. Neurodevelopment effects of maternal nutritional status and exposure to methylmercury from eating fish during pregnancy. *Neurotoxicol.* 29, 767-775.

³ Oken, E., Wright, R.O., Kleinman, K.P., Bellinger, D., Amarasiwardena, C.J., Hu, H., et al., 2005. Maternal fish consumption, hair mercury, and infant cognition in a U.S. cohort. *Environ. Health Perspect.* 113, 1376-1380.

⁴ Oken, E., Radesky, J.S., Wright, R.O., Bellinger, D.C., et al., 2008. Maternal fish intake during pregnancy, blood mercury levels, and child cognition at age 3 years in a US cohort. *Am. J. Epidemiol.* 167, 1171-1181.

⁵ Lederman, S.A., Jones, R.L., Caldwell, K.L., et al., 2008. Relation between cord blood mercury levels and early childhood development in a World Trade Center cohort. *Environ. Health Perspect.* 116, 1085-1091.

⁶ McDowell, M. et al, *Hair Mercury Levels in U.S. Children and Women of Childbearing Age: Reference Range Data from NHANES 1999–2000*, Environmental Health Perspectives (August 2004). Available at <http://www.ehponline.org/members/2004/7046/7046.html>.

high levels of mercury it is absent from the FDA/EPA do-not-eat list on the mercury advisory. Based on recent research, GotMercury.org urges the Committee to re-evaluate the mercury levels of tuna.

University of Las Vegas researchers tested more than 300 samples of canned tuna and found that more than half topped the EPA standard of 0.5 parts per million and five percent exceeded the FDA standard of 1.0 parts per million.

The study recommends that regulatory agencies require the tuna industry to provide detailed information to consumers regarding the mercury content of each product. They also urge more consistent guidelines to lessen consumer confusion, citing the disparity between safety levels set by the EPA and FDA.⁷

GotMercury.org agrees that the EPA and FDA standards need to be consistent. It is confusing to a consumer to have two different standards for mercury levels. In order to better safeguard the public health, the FDA should adopt the 0.5 parts per million mercury standard similar to the EPA's level for non-commercial fish.

In the April 2010 edition of Environmental Research, Dr. Edward Groth published a study showing that tuna of all types accounts for over 37 percent of mercury exposure in the American diet.⁸

Tuna is one of the most consumed fish in the United States and the Dr. Groth study clearly points to the fact that tuna's status should be re-listed where it belongs, among the high mercury predatory fish. To ignore the science about the dangers of mercury in tuna is placing the public at risk.

Continued promotion of tuna consumption by government agencies presents a risk to all sensitive populations, but creates an environmental justice issue when low income ethnic and racial groups are disproportionately targeted and exposed through the WIC and other Federal programs.

Seafood Safety 8. Conduct consumer risk communication research to determine how best to translate seafood benefit/risk findings to the public.

A very serious lapse in clear communication of the exposure risks of mercury in seafood to consumers is the failure to adequately or effectively warn fish eaters. The 2004 FDA/EPA Advisory is not required to be posted at fish point-of-sale locations, and can only be found buried on the FDA website. It would be easy for those especially

⁷ Shawn L. Gerstenber, Adam Martinson, Joanna L. Kramer. An evaluation of mercury concentrations in three brands of canned tuna, Environmental Toxicology and Chemistry, Volume 29 Issue 2, Pages 237-242

⁸ Edward Groth III, Ranking the contributions of commercial fish and shellfish varieties to mercury to mercury exposure in the United States: Implications for Risk Communications. Environmental Research, April 2010, pages 226-236

vulnerable to the effects of mercury, such as women and children to avoid eating high mercury-laden fish if the FDA/EPA Advisory was posted in locations where it would benefit those populations the most.

Mercury cannot be regulated out of the seafood supply, so the most practical option to prevent the health risks of mercury exposure is to provide clear information that is widely available so consumers can manage their own exposure risk. The current FDA/EPA mercury advisory is not providing maximum benefit to fish eaters. The advisory clearly states women should not eat swordfish, shark, tilefish and king mackarel. Yet the advisory is largely absent from fish point-of-sale locations.

Furthermore the advisory needs to be updated to reflect recent scientific studies and publications to show that tuna is a high mercury fish.

To maximize the health benefits of the FDA/EPA mercury in seafood advisory, GotMercury.org and MPP offer the following suggestions:

- The FDA should require all fish sellers to post the FDA/EPA mercury-in-fish advisory
- The FDA should update its mercury-in-fish warnings to include clear advice, particularly to women and children on severely limiting their intake of all forms of tuna due to high mercury levels
- The FDA should require labeling of fish that exceeds the action level of 1 part per million
- The FDA should cite reports and case studies of the harmful effects of mercury from consumption of high mercury fish in their mercury-in-fish advisories and communications
- The FDA should engage in a national, long-term public health education program to warn vulnerable populations about mercury in fish

These suggestions offer practical solutions to the Committee's Seafood Safety point Number 8 "Conduct consumer risk communication research to determine how best to translate seafood benefit/risk findings to the public." Increased circulation of the FDA/EPA mercury advisory would enable consumers to make educated decisions to safeguard their health from the harmful effects of mercury.

9. Seafood Safety. Further refine seafood intake recommendations for US Consumers

Current government guidelines suggest up to 12 ounces of fish per week provided the high mercury predatory fish are avoided. However, scientific evidence does not point to the conclusion that increasing fish intake provides a beneficial health outcome. The European Journal of Heart Failure published a study of 5,299 men and women to see how fish consumption relates to heart disease. The study found no association with an increase in fish consumption and positive effects on heart health, except for a possible

protective effect of omega-3 fatty acids against heart failure in a subgroup with diabetes.⁹

Numerous studies point to the hazards of maternal fish consumption and fetal brain development. A study published in the Environmental Health Perspectives clearly shows an increase of maternal fish consumption can put infants at risk of lower cognition.¹⁰

We encourage the Committee to improve risk communication related to the benefits and risks of seafood intake by updating the information on mercury levels in tuna of all kinds, including light canned tuna (since studies indicate that a certain percentage has higher mercury levels comparable to albacore “white” canned tuna) and to provide accurate information on mercury level in this predatory fish.

10. Seafood Safety. Improve and optimize current contaminants surveillance and monitoring

In 2007, a former FDA associate commissioner testified before a United States House of Representatives Committee that the FDA has neither the resources nor inspectors to stop importation of tainted food. Overall, the FDA inspects about 1 percent of the commercial fish sold on the U.S. market. A report from the New York Times revealed importers of swordfish, a very high mercury fish, use a smaller, younger sample of swordfish in order to pass the FDA mercury test. One FDA seafood expert said that over half of the imported swordfish probably contains unacceptable levels of mercury.¹¹

Lack of rigorous testing and enforcement has increased the availability of high mercury fish on the market and is being sold to consumers who are often completely unaware of toxic levels in the fish.

The monitoring of mercury in the seafood supply, especially imported fish should be a top priority of the government. GotMercury.org and MPP recommend that the Committee include the following suggestions to improve surveillance and monitoring of seafood:

- The FDA should enforce the action level by not allowing fish that exceed the 1 part per million to be sold in the U.S.
- FDA should require labeling of fish that exceeds the action level

⁹ S. Coosje Dijkstra, Ingeborg A. Brouwer, Frank J.A. van Rooij, Albert Hofman, Jacqueline C.M. Witteman, Johanna M. Geleijnse, Intake of very long chain in 3-fatty acids from fish and the incidence of heart failure: the Rotterdam Study, European Journal of Heart Failure, Volume 11, Issue 10 pages 922-928

¹⁰ Emily Oken, Robert O. Wright, Ken P. Kleinman, David Bellinger, Chitra J. Amarasiriwardena, Howard Hu, Janet W. Rich-Edwards, Matthew W. Gillman, Maternal Fish Consumption, Hair Mercury, and Infant Cognition in a U.S. Cohort, Environmental Health Perspectives, 113 (10), 2005

¹¹ Marian Burros, New York Times, July 18, 2007

- The FDA should improve food safety by requiring mercury testing of fish with rapid testing technology

Conclusion

In summary, GotMercury.org and MPP respectfully recommend that the Committee take these steps to reduce mercury exposure risks and improve food safety in regards to mercury, particularly for sensitive populations including environmental justice communities:

- The FDA should require all fish sellers to post the FDA/EPA mercury-in-fish advisory
- The FDA should update its mercury-in-fish warnings to include clear advice, particularly to women and children on severely limiting their intake of all forms of tuna due to high mercury levels
- The FDA should require labeling of fish that exceeds the action level of 1 part per million
- The FDA should cite reports and case studies of the harmful effects of mercury from consumption of high mercury fish in their mercury-in-fish advisories and communications
- The FDA should engage in a national, long-term public health education program to warn vulnerable populations about mercury in fish
- The FDA should enforce the action level by not allowing fish that exceed the 1 part per million to be sold in the U.S.
- The FDA should improve food safety by requiring mercury testing of fish with rapid testing technology

GotMercury.org and MPP appreciate this opportunity to provide input. Please don't hesitate to contact us if you have questions or need additional information. Thank you.

Sincerely,

Buffy Martin Tarbox
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Michael Bender, Director
Mercury Policy Project