

FACTS about Tuna and Mercury

The FACTS:

Background on Mercury and Tuna

Mercury is a naturally occurring metallic substance, present in the air, soil, water and all living matter.

Large doses of mercury are suspected of impairing the normal development of the brain's functioning and the nervous system. Therefore, it is particularly important that fetuses and young children not be exposed to mercury.

Man-made pollutants have also increased the presence of Mercury in some of the World's seas, oceans and rivers.

Most fish absorb trace amounts of natural and man-made mercury over their lifetimes, depending on where they live and their position in the food chain. Generally, fish which have long life-spans and are higher up in the food chain tend to have higher levels of Mercury in their systems.

The fish with the highest levels of Mercury are Shark, Swordfish, King Mackerel and Tilefish. The FDA advises women who are pregnant, planning to become pregnant or nursing and young children to avoid eating these fish. Please click on this link for FDA website: <http://www.cfsan.fda.gov/~dms/admeHg3.html>

Because Tuna lives a long time (anywhere from 10-15 years, on average), and it is at the higher end of the food-chain, it can tend to absorb more mercury over time, depending on its environment. When we eat Tuna (whether it is raw or cooked), we are potentially ingesting some of that mercury.

Within the Tuna family, Bluefin Tuna tends to accumulate the largest amounts of mercury. Genji does not use Bluefin Tuna in any of its products. Genji uses Bigeye Tuna and Yellowfin Tuna, which both contain less amounts of mercury. In the most recent independently conducted lab test, the mercury content in Genji's tuna yielded a result of 0.217 parts per million, well below the 1.0 action level.

The benefits of Seafood

Seafood is widely recognized as a very healthy food as it is high in protein and low in fat. Many cultures around the world include seafood as a staple in their diet.

However, there can be certain risks associated with eating fish and shellfish. There is no unanimously accepted yard-stick to help us weigh the trade-offs between benefit and risks of eating Tuna. To help our customers become informed and make their own decisions regarding diet, below are several reports from leading governmental and

scientific agencies.

The FDA, which regulates commercial fish in the U.S. states: Fish and shellfish are an important part of a healthy diet and can contribute to heart health and children's proper growth and development. Because of their many healthy benefits, FDA recommends that women and young children include them as a regular part of their diet. Please click on this link for the FDA website:

<http://69.20.19.211/bbs/topics/NEWS/2006/NEW01382.html>

The National Research Center for Women and Families states: tuna is high in omega-3 acids, low in saturated fat, and high in protein and vitamin E, and can therefore be a part of a healthy diet. Its benefits apply to the population at large, while the risks are limited to particularly sensitive groups, including women of childbearing age and children under 6 years old. Please click on this link for the NRCWF website:

<http://www.center4research.org/methylmercury2.html>

In its report, "Seafood Choices: Balancing Benefits and Risks," the Institute of Medicine concludes that the benefits of eating seafood far outweigh the potential risks. Please click on this link to read this report from the Institute of Medicine:

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=10172006>

The American Heart Association recommends eating fish (particularly fatty fish) at least two times a week. Please click on this link for this report from the American Heart Association: <http://www.americanheart.org/presenter.jhtml?identifier=4632>

In a recent interview with TIME/CNN, Dr. Dariush Mozaffarian, assistant professor of medicine and epidemiology at Harvard Medical School and the Harvard School of Public Health, indicates that "overall, the dangers of not eating fish [including tuna] outweigh the small possible dangers from mercury. The recommended amount for adults is to eat one or two servings of fish per week — but probably only 10% to 20% of the population in the U.S. eats sufficient fish. The real danger in this country, the real concern, is that we're not eating enough fish. That is very likely increasing our rates of death from heart disease. To read the complete article, please click on the TIME/CNN website: <http://www.time.com/time/health/article/0,8599,1706623,00.html>

For more information on the EPA's fish advisory or continuously updated FDA information, please visit: www.epa.gov/waterscience/fishadvice/advice.html

<http://www.cfsan.fda.gov/~frf/sea-mehg.html>;

<http://www.cfsan.fda.gov/~frf/seamehg2.html>

Information regarding mercury levels in certain fish from the American Heart Association: <http://www.heartcheckmark.org/presenter.jhtml?identifier=3013797>

Top 10 fish and shellfish consumed in the United States

	Mean Mercury Level parts per million (ppm)	Omega-3 Fatty Acids (grams per 3-oz. serving)
Canned tuna (light)	0.12	0.26–0.73
Cod	0.11	0.13–0.24
Pollock	0.06	0.46
Crabs	0.06	0.34–0.40
Scallops	0.05	0.17
Flounder or sole	0.05	0.43
Catfish	0.05	0.15–0.20
Salmon	0.01	0.68–1.83
Shrimp	ND*	0.27
Clams	ND*	0.24

Other common seafoods

	Mean Mercury Level parts per million (ppm)	Omega-3 Fatty Acids (grams per 3-oz. serving)
Grouper	0.55	0.21
Lobster	0.31	0.07–0.41
Mahi mahi	0.19	0.12
Herring	0.04	1.71–1.81
Halibut	0.26	0.40–1.00
Oysters	ND*	0.37–1.17

Fish with the highest levels of mercury (about 1 ppm Hg)

	Mean Mercury Level parts per million (ppm)	Omega-3 Fatty Acids (grams per 3-oz. serving)
Tilefish (golden bass or golden snapper)	1.45	0.80
Shark	0.99	0.90
Swordfish	0.97	0.70
King mackerel	0.73	0.34

Advice from the FDA

Women who are pregnant, planning to become pregnant or nursing — and young children — should not eat these fish. Everyone else can eat up to 7 ounces of high-mercury fish per week.

Fish with about 0.5 ppm Hg

	Mean Mercury Level parts per million (ppm)	Omega-3 Fatty Acids (grams per 3-oz. serving)
Red snapper	0.60	0.27
Orange roughy	0.54	0.002
Fresh or frozen tuna	0.38	0.24–1.28

Advice from the FDA

Minimizing exposure to methylmercury is particularly important for pregnant women, women who are planning to become pregnant, nursing women and young children. These people should limit their consumption of all fish with much lower mercury levels than 1 ppm Hg (see above). The guideline for them is 12 ounces per week (about 3 to 4 servings). Other people can eat 14 ounces a week of fish with mercury levels that average 0.5 ppm.

* ND - mercury concentration below the Level of Detection (LOD=0.01ppm)