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24 November 2003

Patricia Daniels, Director
Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 520
Alexandria, Virginia 22302

Dear Director Daniels:

I enclose information about fish, mercury, PCB's and dioxin. I suggest that the enclosed information from the Minnesota Smart Fish Guide needs to be more widely publicized. I believe that some pregnant women, breastfeeding women and children consume too much Tuna fish, and selected segments of genetically susceptible populations may be at considerable risk from the amount of tuna they consume. Please include in your new WIC guidelines.

Sincerely,

Harvey Kayman, MD, MPH, FAAP
Pee Dee District Health Director
South Carolina Department of Health and Environmental Control

received
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SMART FISH GUIDE

Safer, Sustainable Fish Consumption for
Healthier Children and a Healthier Environment

SMART GUIDE #1

INSTITUTE FOR AGRICULTURE AND TRADE POLICY

The Smart Fish Guide is for Moms, Moms-to-Be and children under age 15.

Our recommendations are based on limited national mercury data for commercial seafood, as well as mercury and PCB data from Minnesota fish. Contaminant levels in some fish vary state-by-state, as do specific recommendations. Our advice also reflects concerns about the sustainability of some fisheries and fish farms. **Note:** In this brochure fish not labeled "farmed" are wild-caught.

Why fish are a healthy choice

Fish are an excellent source of protein and vitamin D, as well as an important source of beneficial omega-3 fatty acids, which help prevent heart disease and promote mental health and healthy brain development in infants and children.¹⁻⁵ If you are pregnant don't stop eating fish, just choose fish which are safe and sustainable.

Pollutant risks. Mercury, PCBs (polychlorinated biphenyls), dioxins, flame retardants and other toxic chemicals can build up in some fish and seafood, posing human health risks, especially for fetuses and children. Some big predatory fish have higher pollutant levels and some fatty fish species tend to be higher in PCBs and dioxins. Smarter fish consumption can reduce health risks.

Keep in mind

- Guidelines assume an 8 oz portion, which could consist of two 4 oz servings.
- **Children should eat smaller portions.** While a woman can eat 8 oz of cod per week, for example, a 40-pound child should eat just 2 oz.
- **Consider total fish consumption.** Eating 8oz from the "once-per-month" category means no other fish should be eaten for the month.

Sustainability

When buying fish or seafood, consider the impact of fishing and fish farming on wild fish ecosystems.⁶

Problems with some fishing practices include:

- **Overfishing**, which depletes fish populations, endangering some species of fish
- **Habitat destruction** from fishing gear such as bottom trawls
- **Bycatch**, unintentional catch taken by fishers e.g. sharks and sea turtles caught in the process of tuna fishing

Problems with large scale fish farms can include:

- **Threats to wild fish and native species:** Non-native species can escape and compete with indigenous fish species. Sea mammals and birds are often harmed or even killed.
- **Pollution and disease.** Pesticides, antibiotics and other chemicals are routinely used to combat diseases and parasites among fish raised in crowded conditions. These practices can pollute the marine ecosystem and foster the spread of disease and parasites to wild fish.
- **Waste.** Some farmed fish are fed ground up wild fish. For example, it takes about 3 pounds of smaller wild-caught fish to produce one pound of farmed salmon.⁷
- **Increased toxin levels.** This type of feeding can also cause some pollutants to accumulate in farmed fish at higher levels than in wild fish.⁸
- **Possible health risks from added colorants:** Colorants are added to farmed salmon to give them a pink color. Because of health concerns, the European Union recently reduced permissible levels of colorants in farmed salmon. The FDA requires colorant labeling of all farmed salmon sold in the U.S.

Recommended Fish Servings

Bold blue choices are more environmentally sustainable. Sustainability criteria are not available for wild freshwater fish.

2-3 8oz servings per week

Anchovies, Clams, Farmed Catfish, Farmed Trout (Rainbow), Fish sticks, Flounder (**Pacific, Atlantic**), Mid-Atlantic Blue Crab, Salmon (**Wild Pacific, Wild Alaskan, Canned Alaskan**)

One 8oz serving per week

Sunfish, Crappie, Perch, Smelt, Lake Whitefish, Cod (**Pacific, Atlantic**), Crab (**Dungeness, Blue, Stone, King, Imitation**), Haddock, Hake (**Pacific, Atlantic**), Herring, Mahi Mahi (**hook and line caught**), Mussels (**non-dredged cultured native, dredged**), Oysters (American, Japanese, Pacific Olympia), Pacific Pollock, Pompano, Sardines, Scallops (Dredged, Farmed), U.S. Farmed Tilapia, Canned Chunk Light Tuna

One 8oz serving per month

Bullheads, Northern Pike (under 30"), Sucker, Walleye (under 20"), Bluefish, Crab (Gulf Coast Blue), Grouper, **Halibut***, Lobster, Atlantic Pollock, Rockfish, Tuna steaks (**hook and line caught**)

Remember - Do Not Eat

Freshwater Bass, Carp, Catfish, Muskie, Northern Pike (over 30"), Trout (Lake, Steelhead), Walleye (over 20"), King Mackerel, Orange Roughy, Shark, Red Snapper, Swordfish, Tilefish, Canned white Albacore Tuna

*Recommendation based on average mercury levels in both Atlantic and Pacific Halibut. Alaskan Halibut are lower in mercury, so could be consumed more frequently.

Reminder: These guidelines refer to total fish consumption. Please consider the amount of fish you've eaten in the past month, particularly if you are going on a vacation or trip where you would eat more fish than you usually do.

Missing Fish? We couldn't list every fish species in this guide, however many other resources can be found on our web site at www.iatp.org/foodandhealth

What about canned tuna?

Canned tuna is a popular, nutrient-rich food for women and children, but consumption should be limited to protect fetuses and children. Tip: Adding dressing and chopped vegetables to tuna salad reduces its fish content.

Women of childbearing age can safely eat 7 oz of chunk light tuna per week – (a small can, excluding water weight, contains about 5 oz of fish)

Children can safely eat a 1/2 can of chunk light tuna per week.

What about canned white (albacore) tuna?

Recent testing suggests that on average canned albacore tuna may contain up to 4 times the mercury of chunk light tuna, made from smaller Skipjack tuna.^{6,7} These new data indicate women of childbearing age and children should avoid most canned albacore tuna.

Getting rid of mercury in the environment

What can we do? Change public policies and take personal actions

Better public policies:

- Require coal plant conversion to natural gas, eliminating mercury emissions.
- Require utilities to supply more electricity from cleaner power sources (e.g. wind).
- Restrict open burning of waste; support waste reduction.
- Phase out use of the mercury in products and require manufacturers to "take-back" mercury-containing products.
- Phase out mercury in dental amalgams to reduce mercury waste from dental offices.

Individual actions:

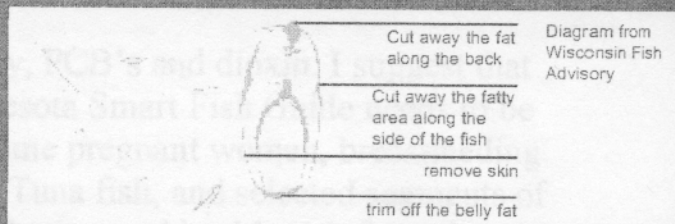
- Urge elected officials to support the above policies.
- Buy wind power from your utility.
- Swap mercury thermometers for non-mercury ones.
- Dispose of mercury thermometers, thermostats & fluorescent light bulbs as hazardous waste. See www.moea.state.mn.us
- Ask for dental fillings without mercury.
- Phase out use of mercury in dental amalgams, to reduce mercury waste from dental offices.

Why worry about toxins in fish?

Anyone eating fish with mercury and PCBs faces potential health problems. However, fetuses and young children are at greatest risk. Exposure to these brain toxins early in life when the brain is still developing can lead to adverse effects on learning and behavior.^{10, 11} Because mercury and especially PCBs remain in the body, reflecting months or years of past exposure, any woman capable of bearing children needs to pay attention to the fish she eats, even before becoming pregnant. During pregnancy these toxins travel easily through the placenta to the developing fetus. Mothers also pass these pollutants in breast milk to nursing babies. Since brain development continues into the teen years, children under 15 should also follow these guidelines.

Fish Tips

- Eat smaller fish – panfish rather than predator fish like walleye or pike.
- Eat smaller portions of fish that may be contaminated. A 3 oz. serving is about the size of a deck of cards.
- To reduce the level of PCBs and dioxins, broil, bake or grill fish, so the fat drips away. Deep-frying and pan-frying is not recommended.
- **Trim Fat to Reduce Exposure to PCBs and dioxin:** Because these toxins concentrate in fat, removing the fat will reduce contaminant levels. Trimming the fat will not get rid of mercury, because it gets into the flesh of the fish.

**Did you know?**

According to the Environmental Protection Agency, 8% of women of childbearing age have mercury in their bodies at levels that can harm the developing fetus.⁹ In a given year, this exposure puts an estimated 325,000 newborns at risk for adverse health effects on their developing brains, mostly due to fish consumption by the mother.

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