



## PCBs and Farmed Salmon: Facts to Go with the Fiction

A recent report about farmed salmon by the Environmental Working Group (EWG) has resulted in articles in the media about the acceptable levels of PCBs in farmed salmon. The genesis of the report was a sample of 10 fish done by the EWG which showed an average PCB level of 27 parts per billion (ppb) which is 99 percent under the tolerance of 2,000 ppb (2.0 parts per million) set by the U.S. Food and Drug Administration.

The EWG finds fault with these levels. They want to use guidelines set by the Environmental Protection Agency for sport and subsistence fishermen who repeatedly fish the same heavily contaminated waters. The EWG view is at odds with not just the FDA, which has issued a statement reaffirming their tolerance (they reviewed it in 2000, specifically with regard to this issue), but also with the stated positions of the National Cancer Institute, the National Academy of Sciences (which completed a review of this topic just six months ago) and a host of other reputable, independent scientists.

Most of the media has, as is usually the case with a scary headline story, simply picked up what was said in the report without much (or any) analysis of the facts. Comments from scientists who have reviewed the report and regard it as poorly done are covered well into the body of the story, and rarely in the beginning or in the headline.

It is important to note that this is neither a study nor research, in the accepted use of the word. It is largely undocumented, has not undergone peer review, and lacks the scientific rigor and unbiased analysis to give it meaning. Most of all, it has no bearing on the safety of farmed salmon. Below are statements made about the study by responsible, independent people and organizations. We feel their words speak louder than ours on this issue.

Perhaps the best advice on this issue and the EWG is given in an editorial in the *Seattle Times*:

*Over the years, the Environmental Working Group has obsessed over fresh apples, pears, peaches, spinach, strawberries, celery, lettuce and canned tuna. Now, fresh salmon. Think twice before taking dietary advice from these folks.*

### The Issue

- The benefits of eating fish rich in fatty acids are more clearly proven than the risk of PCB exposure, said Robert Lawrence, a professor at Johns Hopkins University's Bloomberg School of Public Health. Omega-3 fatty acids protect against heart disease, reduce hypertension and ease joint pain and arthritis. Lawrence led a National Academy of Sciences panel on the health implications of PCBs and similar compounds that issued a report in June. The panel decided against changing the current federal recommendation to consume two servings of fish a week.

*As quoted in The Oregonian, July 30, 2003*

- FDA officials said that they began a review of their standards for dioxins and dioxin-like substances, such as PCBs, in 2000, including an examination of farm-grown and wild salmon. But they defended the FDA's current standard, which has been in place since 1984.

"Part of our equation is looking at the overall picture, the positives in nutrition versus the trace levels of PCBs that may be remaining in our environment," said Terry Troxell, director of the FDA's Office of Plant and Dairy Foods and Beverages.

Troxell said his office would consider the Environmental Working Group's findings, but he added that the FDA is urging consumers to continue eating salmon and other fish because of the health benefits.

*As quoted in The Chicago Tribune, July 30, 2003*

## Risks vs. Benefits

- The EPA's standard is that the risk over a 70-year lifetime should increase a person's chance of getting cancer by no more than 1 in 100,000. But that risk is insignificant considering that the average white American's chance of dying of cancer is already 23,000 in 100,000. Figures for other racial groups are similar.

Fish is good for you; salmon is particularly rich in omega-3 fatty acids, which reduce the risk of heart disease, stroke and Alzheimer's disease. Of those 100,000 Americans, heart disease kills 30,000; stroke, 7,000; and Alzheimer's disease, 2,200. Eat fish, and these risk levels fall. A recent study suggests that if seniors eat fish once a week, they cut their risk of Alzheimer's by 60 percent. If that study is right, it is worth a thousand times more than the study by the Environmental Working Group.

*Seattle Times editorial, August 1, 2003*

- "If the public listened to this, our health would be negatively affected," said Charles Santerre, a professor of food and nutrition at Purdue University. "Any small additional risk of cancer is far outweighed by the benefits of fatty acids in the fish."

*As quoted in The Oregonian, July 30, 2003*

## What Real Scientists Think About the Environmental Working Group

- Sheldon Jones, director of the Arizona Department of Agriculture, noted that "EWG's approach is more alarmist politics and it lacks sound scientific health or risk assessment information."
- Marcia van Gemert, retired chief of toxicology at the EPA's Office of Pesticide Programs, noted that EWG is "politically, not toxicologically, driven." (April 23, 1998)
- Dr. Bruce Ames, director of the National Institute of Environmental Health Sciences Center at the University of California at Berkeley, commented on the EWG baby food report, saying that it is "an attempt to scare parents over something that is no threat to their children's health."
- The American Medical Association said in a press release in 1992: "The Alar scare (EWG initiated) of three years ago shows what can happen when science is taken out of context or the risks of a product are blown out of proportion."

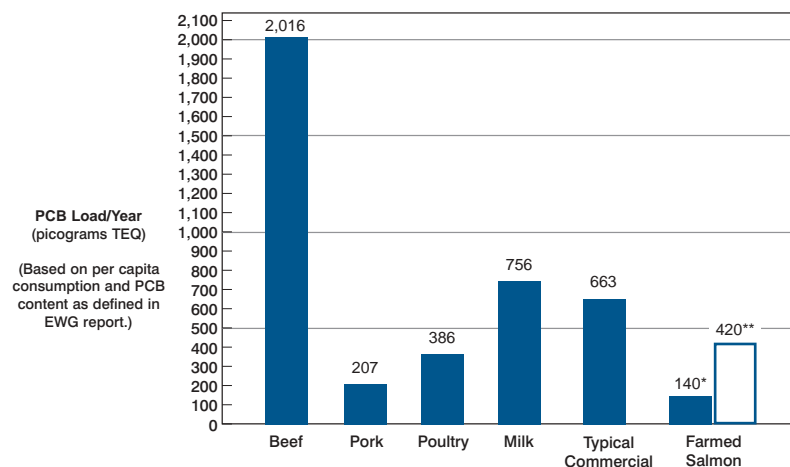
## The Risk Compared to Other Food

Unfortunately, PCBs are found throughout the environment. Salmon farmers aggressively deal with this in many ways and have been successful at lowering the levels over the years, as is evidenced by the current levels which are far below the existing tolerance and continue to decline. To get a perspective on PCBs in the environment and how misleading the EWG report is if you simply read their headlines, consider the graph below. It represents the total PCB intake based on per capita consumption of various foods referenced in the EWG report using their PCB numbers.

What it clearly shows is that salmon is not the source of most of the PCB load, and that even if per capita consumption of salmon were to triple, it would be a fraction of what it is in beef. Note that the per capita consumption of milk means it is 507 glasses of milk a year, far below what most growing children drink. If the same standards as the EWG wants applied to salmon for limiting consumption to one serving a month were applied to milk, it would mean that people could only drink a single 6-ounce glass of milk ever other day.

This is not to indict any other food, or to dismiss the PCB levels in salmon as unimportant, but it does call the logic and motivation of the EWG report into question.

**Annual Per Capita Load of PCBs by Food**  
(Based on Environmental Working Group report of July 30, 2003)



\* Based on EWG report average PCB level of 27 ppb.

\*\* Salmon at three times the current per capita consumption level.