

FACTS ABOUT ALASKA SALMON AND PCBs

Recent media stories have unnecessarily and irresponsibly raised concerns about the purity of Alaska salmon. **NO CONSUMPTION ADVISORY BY THE U.S. FOOD AND DRUG ADMINISTRATION (FDA) HAS EVER BEEN ISSUED FOR ANY CONTAMINANT IN ANY ALASKA SEAFOOD.**

The media stories stem from recent research that documents the transport of polychlorinated biphenyls (PCB) from the marine environment to freshwater lakes by salmon. This is not new news. Nor should it be news to cause any concern about the safety or wholesomeness of Alaska salmon. It is a phenomenon that while academically interesting has little to do with human health or the consumption of salmon because the observed levels are a fraction of health levels of concern. This research merely documents that salmon transport nutrients and other compounds from the ocean to freshwater spawning grounds. The observed levels of PCBs in salmon are innocuous, and represent the global presence of certain man-made substances at very low levels.

The study was published in the journal *Nature* (Sept 18, 2003). One of the study's authors is Dr. Jules Blais. Dr. Blais, a Canadian researcher, in other media publications states that levels of PCBs are very low and not a concern or health threat, and should not prevent people from eating salmon. This echoes 1998 research by Swedish Researcher Dr. Goran Ewald, referenced by Blais, who similarly documented this transport mechanism, but also observed:

“However, the salmon in this study have concentrations of pollutants far below the levels that have caused concern with regard to human consumption or fish reproduction: pollutant levels are approximately 10 times lower than those found in salmon (*Salmo salar*) in the Baltic Sea (Larsson et al, 1996) and more than 20 times lower than those reported for salmonids in Lake Ontario (Oliver and Niimi, 1988).”
(Ewald's paper was published in the Journal Arctic, vol 51, No. 1, March, 1998, p. 40-47)

The level of concern in Germany is 80 micrograms/kg fish tissue (or 80 parts per billion {ppb}). The FDA action level for PCB commercially caught fish in the marketplace is 2.0 parts per million (2000ppb). Levels cited in this study are less than 1/3rd of the German limit and 1/80th of the FDA limit.

Recommendations for fish consumption levels vary widely by different regulatory authorities and health agencies. These credible authorities may differ in the recommendations by more than 100 fold. Such wide variation suggests there is little consensus about the risks of these substances and the risks posed at these very low concentrations.

The study is based in part on a sample size of only five (5) fish. Clearly, further work is needed to adequately characterize these findings. Further, this study is about lake sediment and environmental substance transport mechanisms, not a study about fish

consumption or food safety. There are insufficient data about fish PCB concentrations in the study by Blais from which to make credible statements about food safety, or fish consumption.

The State of Alaska Division of Public Health has examined PCB levels in subsistence food users in Alaska. These Alaskans consume seafood, including salmon, at much higher levels than the average consumer. No levels of PCB in these seafood users approach levels of concern. The Division of Public Health has also carefully reviewed the Blais research and has reiterated in a recent Bulletin

(http://www.akepi.org/bulletins/docs/b2003_28.htm). The Division's conclusions are as follows:

Conclusions

- The Nature article by Krummel et al. (2003) is a basic environmental science article adding to the knowledge base of PCB transport mechanisms;
- The findings are not a surprise, as salmon have already been shown to transport PCBs to spawning areas in Alaska and elsewhere;
- These data extend the findings of Ewald et al. (1998) by providing a correlation between lake sediment PCB concentrations and accumulation rates with the density of returning salmon;
- PCB levels found in individual Alaska salmon are low, and are not of human health concern;
- The Alaska Division of Public Health recommends continued unrestricted consumption of fish from Alaska waters, especially salmon; and
- Alaska fish are a healthy food choice, with many documented health benefits including protection from cardiovascular disease and diabetes, improved maternal nutrition, and improved neonatal and infant brain development.

With the above unequivocal statements from the Alaska medical authorities, seafood consumers can continue to enjoy Alaska seafood knowing it is a wholesome and healthy choice.

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