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Proper cooking makes fish OK

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There seems to be universal agreement now about the dangers posed by an infamous group of chemical compounds known as PCBs or polychlorinated biphenyls.

They are known to be toxic to man as witnessed by the 1968 deaths of five people in Japan and the poisoning of hundreds of others who had used cooking oil contaminated with the chemical.

Closer to home at the University of Wisconsin-Madison, it has been shown that PCBs cause severe health problems in monkeys fed five parts per million (ppm) PCBs, a level now considered safe for human consumption by the United States Food and Drug Administration.

What has made these case studies more alarming is the recent discovery that PCB levels are increasing in fish caught in Lake Michigan and the Upper Mississippi River.

Fish like the large lake trout and salmon have been shown to be quick to pick up PCBs through their gills, fins and skin and to be slow in eliminating them. Presently, fish containing up to 50 ppm PCBs are being recovered from the lake.

As a result, the Wisconsin Dept. of Agriculture has curtailed the Commercial sale of these fish and the state Dept. of Natural Resources (DNR) has warned sportsmen to limit their intake of such fish to one meal per week.

Beyond that, there are a number of other things the sportsman can do to make his catch safer to eat, according to food scientists David Stuiber and Robert Lindsay of the UW.

"You can eliminate some of the PCBs in cleaning the fish," Stuiber noted. "Take the head and the tail off and then section your fish. Remove the belly flap, where you have tremendous amounts of fat. Then remove the fat along the lateral line and the fatty portions along the dorsal line around the fish's belly."

According to Stuiber and Lindsay, the major harbinger of PCBs is fat.

"Remove as much fatty material from the fish as possible," Lindsay urged. "Tests show that these areas usually will have about 10 times the levels of PCBs found in the lean tissue."

The big, full-grown lake trout and salmon are the worst, he said. They contain the greatest percentage of fat, varying anywhere from 8 to 20 percent.

Once the fish are cleaned, there is more that can be done to reduce the PCB content.

In cooking it, the scientists said, the point again is to get rid of the fat. For this reason, they recommend broiling, barbecuing or baking the fish.

"If you want to fry it, go ahead," Stuiber said. "Just be sure to get rid of all the drippings — don't use them for anything."

"You can't eliminate PCBs," Stuiber explained, "but you can do a lot to reduce their amounts if you clean and cook the fish properly."

How long fishermen will have to go through these steps remains a mystery — the big question right now is how persistent PCBs are going to be.

"Based on evidence to date, it looks like they're terrifically persistent," Lindsay said, "and unless something is done to restrict their entry into the environment, the problem is going to get worse. It even could threaten the Great Lakes sports fishery."

Nevertheless, Lindsay and Stuiber believe that, before things get to such a point, state and federal agencies will take action to restrict the use and discharge of PCBs. In fact, the DNR currently is holding hearings on PCBs with an eye towards establishing discharge limits for Wisconsin waters.

Whatever the outcome, PCBs likely will be present in fish for some time to come, and Stuiber and Lindsay's advice on how to cook and clean PCB-ridden fish will remain one good way to make the best of a bad situation.

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