

**Column for week beginning April 9, 2006**

**SEA GRANT**

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April 6, 2006

By

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Concerns over mercury levels in fish have led to confusion for consumers. On the one hand are the warnings from EPA regarding the consumption of certain species of fish by women of childbearing age and young children and, on the other hand, are the well publicized health benefits of regular fish consumption, particularly those fish high in omega-3 fatty acids. The issue of balancing the risks and benefits of eating fish was recently addressed by the Harvard Center for Risk Analysis. Their study focused on the potential impact of people not eating fish because of the warnings which advised women of childbearing age to avoid certain fish species and eat moderate amounts of other species.

Because there was little data available on how people reacted to the warning, the researchers looked at three possible scenarios. In scenario one, only women of childbearing age changed their consumption but they continued to eat fish per the EPA guidelines. The second scenario assumed women of childbearing age reduced their consumption of fish by 17% but continued to eat some fish high in mercury. The last scenario assumed all adults reduced their fish consumption by 17% as a result of negative publicity about eating fish.

The results are reported in terms of I.Q. points gained, increase in mortality due to strokes and heart disease and increase in non-fatal strokes. In scenario one, there is an

average benefit of 0.1 I.Q. point per newborn baby and an increase of less than one in a million for mortality of women of childbearing age and a similar finding for strokes. The second scenario results in an I.Q. increase of 0.2 while the increased risk of mortality and strokes remain small. The last scenario is really the point of study. In this case, where all adults reduced their fish consumption just 17%, the increase in I.Q. for newborns is the same as scenario two but death among adults increases by 7,900 and non-fatal strokes increases by 1,500.

The authors have also analyzed the affects of increased fish consumption. In their own words: “In the case of coronary heart disease, our evaluation of the epidemiologic data suggest substantial benefits are associated with the consumption of at least some fish (e.g., one meal per week), rather than no fish.”

In summary, the benefits of including fish in a balanced diet out weigh the risks particularly if women of childbearing age follow the EPA guidelines while still continuing to eat fish. The greatest risk arises from not eating fish at all because of misunderstandings about fish consumption warnings. These findings are supported by the recent USDA dietary guidelines which recommend that all Americans—especially pregnant and nursing women and children— eat two seafood meals per week that are rich in omega-3 fatty acids. In the words of Bill Hoargarth, Director of NOAA Fisheries: “While there are risks associated with everything we consume, the health benefits gained from omega-3 fatty acids in fish and shellfish far out weigh the risks from contaminants for the vast majority of the population.

The complete text of the EPA guidance can be found at: [www.epa.gov/ost/fish/](http://www.epa.gov/ost/fish/).

Because some fish in our area are high in mercury, consumers should consult the Alabama Department of Public Health Fish Consumption Advisory at:  
[www.adph.org/risk/](http://www.adph.org/risk/).