

## Fish intake linked to higher IQ in offspring

16/02/2007 - **Eating more than 340 grams of omega-3-rich seafood per week during pregnancy was associated with higher verbal intelligence quotient (IQ) scores in the children, says a new study.**

The research is significant since it goes against recommendations of seafood consumption during pregnancy, which state women should not eat more than 340 grams per week to avoid exposing the foetus to trace amounts of pollutants in the [fish](#), like methyl mercury, dioxins, and polychlorinated biphenols (PCBs).

The new research compiled data from 11875 pregnant women taking part in the Avon Longitudinal Study of Parents and Children (ALSPAC). The women completed food frequency questionnaires to assess seafood consumption, and the development, behaviour, and mental function of the children were measured from age six months to eight years.

*"Maternal seafood consumption of less than 340 grams per week in pregnancy did not protect children from adverse outcomes; rather, we recorded beneficial effects on child development with maternal seafood intakes of more than 340 grams per week,"* wrote lead author Joseph Hibbeln from the US National Institute of Alcohol Abuse and Alcoholism.

*"These results show that risks from the loss of nutrients were greater than the risks of harm from exposure to trace contaminants in 340 grams seafood eaten weekly,"* he wrote.

The women were divided into three categories based on seafood consumption: no seafood (12 per cent of the women), some seafood (1-340 grams per week, 65 per cent), and greater than 340 grams per week (23 per cent). After adjusting the results for 28 potential confounders, Hibbeln and his colleagues report that verbal intelligence quotient (IQ) scores for children from mothers with no seafood intake were 50 per cent more likely to be in the lowest quartile.

For children from mothers with some seafood intake, verbal [IQ](#) scores were nine per cent more likely to be in the lowest quartile, compared to women who ate more than 340 grams per week.

It was also found that women with low seafood consumption were more likely to come socially disadvantaged backgrounds, and *"less than ideal lifestyles"*.

*"Advice that limits seafood consumption might reduce the intake of nutrients*

*necessary for optimum neurological development... Other evidence suggests that [omega-3](#) fatty acids in pregnancy could be directly responsible for the beneficial findings shown here,"* said Hibbeln.

The researchers also noted that the study, carried out in the UK, was likely to result in higher intakes of methyl mercury than would be consumed in the US.

The results may require a rethinking of current recommendations, and add to a growing body of science that suggests that the benefits of regular fish intake outweigh the risks.

However, fears about dwindling fish stocks and the presence of pollutants have pushed some academia and industry to start producing omega-3s from alternative sources, such as algae extraction or transgenic plant sources. Most extracted fish oils are molecularly distilled and steam deodorised to remove contaminants.

According to Frost and Sullivan, the European omega-3 market was worth around €160m (£108m) in 2004, and is expected to grow at rates of 8 per cent on average to 2010.