

## Research shows that the benefits of eating seafood during pregnancy outweigh the risks

Research published today in the Lancet casts new light on the controversial issue of whether pregnant women should eat fish.

The issue has divided experts in Britain and the United States. In the UK, the Foods Standards Agency simply advises that mothers avoid shark, swordfish and marlin, and restrict intake of tuna. Official U.S. Government advice, on the other hand, is for pregnant women to limit consumption of all seafood to 12 ounces per week, in order to protect the unborn child from traces of methyl mercury, which can affect brain development.

The new research into children's behaviour and intelligence suggests that instead of protecting the unborn baby, women who follow U.S. advice or cut fish out of their diet altogether may miss out on vital nutrients that the developing brain needs - and so unwittingly harm their children.

The findings come from a study of almost 9,000 British families taking part in the Children of the 90s project at the University of Bristol. The lead researcher, Dr Joseph R Hibbeln from the U.S. National Institutes of Health, and the Bristol scientists compared the amount of fish eaten by pregnant mothers with the development and behaviour of their offspring up to the age of 8.

Dr Hibbeln cites abundant evidence that seafood is the predominant dietary source of long chain omega-3 fatty acids, which are essential for development of the nervous system.

Women from socially-advantaged backgrounds were more likely to include fish in their diet. But even after adjusting for 28 different factors – such as social class, or whether the mother breastfed - there were significant differences in the children's development.

Mothers who ate more seafood than was considered to be safe according to U.S. guidelines, had children who:

- were more advanced in development tests measuring fine motor, communication and social skills as toddlers;
- had more positive social behaviours;
- were less likely to have low verbal IQ scores at the age of 8.

Conversely, the less fish the mothers ate the more likely the children were to perform poorly in these areas. For example, those children whose mothers had eaten no fish were:-

- 28% more likely to have poor communication skills at 18 months
- 35% more likely to have poor fine motor coordination at age three and a half
- 44% more likely to have poor social behaviour at age seven
- 48% more likely to have a relatively low verbal IQ at age 8

***when compared with children of women who ate more than the U.S. guidelines advise.***

Dr Hibbeln said: "We have found that when women had low levels of seafood consumption, the outcome is exactly the opposite of what was assumed by the United States Advisory.

"Unfortunately, the advice appears to have had the unintended consequence of causing harm in a specific developmental domain - verbal development - where protection was intended."

SOURCE:

**Maternal seafood consumption in pregnancy and neurodevelopmental outcomes in childhood**

**(ALSPAC study): an observational cohort study:** *Joseph R. Hibbeln, John M. Davis, Colin Steer, Pauline Emmett, Imogen Rogers, Cathy Williams, Jean Golding*

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NOTES:

□ Advice issued by the UK's Foods Standards Agency says: "You can eat most types of fish when you're pregnant or breastfeeding. Eating fish is good for your health and the development of your baby. But... when you're pregnant or planning to get pregnant, you shouldn't eat shark, swordfish or marlin. You should also limit the amount of tuna you eat to no more than two tuna steaks or four medium-size cans of tuna a week. There is no need to limit the amount of white fish you eat when you're pregnant or breastfeeding, apart from shark and marlin."

□ ALSPAC The Avon Longitudinal Study of Parents and Children (also known as Children of the 90s) is a unique on-going research project based in the University of Bristol. It enrolled 14,000 mothers during pregnancy in 1991-2 and has followed most of the children and parents in minute detail ever since.

□ The ALSPAC study could not have been undertaken without the continuing financial support of the Medical Research Council, the Wellcome Trust, and the University of Bristol among many others.

**FOR FURTHER INFORMATION:** Dr Joseph R. Hibbeln is based in the United States. However, Professor Jean Golding of ALSPAC is available for interview. For further information contact APSPAC PR: **Sally Watson** or **Anne Gorrington** on 0117 3316729. Professor Jean Golding's direct line is 0117 3317925.