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## **A diet rich in fish during pregnancy favours the neurological development of children**

**Barcelona, 13 January 2009.** A study by the Centre for Research in Environmental Epidemiology (CREAL) and the Municipal Institute of Medical Research (IMIM-Hospital del Mar) suggests that **a diet moderately rich in fish (2 or 3 times a week) during pregnancy is associated with an increase in children's intellectual capacity later in life.**

According to **Michelle Méndez**, the first author of the article: *The polyunsaturated fat DHA (docosahexaenoic acid), a type of fatty acid that belongs to the omega-3 group which is capable of penetrating the placental barrier, could be responsible for this positive effect on infants' cognitive abilities (intelligence, verbal expression, motor skills and memory). Although the reasons for this are still uncertain, DHA levels appear to be crucial in the early development of a foetus' brain.*

To arrive at these conclusions, the researchers studied a group of **392 women and their children** from the island of Menorca, a geographical region where fish is frequently consumed. They were asked to fill in a questionnaire about their dietary habits during pregnancy shortly after giving birth. When children reached the age of four, trained psychologists measured their neurological development using the McCarthy Scales of Children's Abilities (MCSA), in addition to collecting data on their diets and physical activity.

Fish and shellfish consumption during pregnancy has been of concern because of possible neurological toxicity in children as a consequence of the potentially high mercury content. Despite these concerns, previous studies indicated that some substances found in seafood may be beneficial for children's brain development. However, **this is the first study that was done in a population where high levels of consumption of fish and shellfish is not associated with socio-economic**, as is the case in the United States and United Kingdom. What's more, for the first time it was possible to comparatively study the effects of consuming fish and shellfish. Unlike fish, however, no positive association between shellfish consumption and later neurological development was found in this study, possibly because these types of seafood contain lower levels of DHA.

In summary, the results of this study suggest that a moderate consumption of fish – but not shellfish – during pregnancy is associated with improvement in the intellectual development of offspring. Based on these findings, the authors recommend studying other populations with high levels of fish consumption in their diets in order to confirm the results obtained.

**Reference article:** "Maternal fish and other seafood intakes during pregnancy and child neurodevelopment at age 4 years". *Public Health Nutrition*, doi:10.1017/s1368980008003947

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**For further information, please contact:**

Marta Calsina, Communications Services at CREAL-IMIM, Tel.: 933160680 or 638720000.