

# Diet during pregnancy and early life affects children's behaviour and intelligence

September 13 2013

---

The statement "you are what you eat" is significant for the development of optimum mental performance in children as evidence is accumulating to show that nutrition pre-birth and in early life "programmes" long term health, well being, brain development and mental performance and that certain nutrients are important to this process.

Researchers from the NUTRIMENTHE project have addressed this in a five-year study involving hundreds of European families with young children. Researchers looked at the effect of, B-vitamins, folic acid, breast milk versus formula milk, iron, iodine and omega-3 fatty acids, on the cognitive, emotional and behavioural development of children from before birth to age nine.

The study has found that folic acid, which is recommended in some European countries, to be taken by women during the first three months of pregnancy, can reduce the likelihood of behavioural problems during early childhood. Eating [oily fish](#) is also very beneficial, not only for the omega-3 fatty acids they which are 'building blocks' for [brain cells](#), but also for the [iodine content](#) which has a positive effect on reading ability in children when measured at age nine.

A long-term study was needed as explained by Professor Cristina Campoy, who led the project "Short term studies seem unable to detect the real influence of nutrition in early life", explained Prof Cristina Campoy, "NUTRIMENTHE was designed to be a long-term study, as the brain takes a long time to mature, and early deficiencies may have

far-reaching effects. So, early nutrition is most important."

Many other factors can affect [mental performance](#) in children including; the parent's educational level, socio-economic status of the parents, age of the parents and, as discovered by NUTRIMENTHE, the [genetic background](#) of the mother and child. This can influence how certain nutrients are processed and transferred during pregnancy and breastfeeding and in turn, affect mental performance.

In giving advice to parents, Cristina Campoy explained, "it is important to try to have good nutrition during pregnancy and in the early life of the child and to include breastfeeding if possible, as such 'good nutrition' can have a positive effect on mental performance later in childhood." She went on to explain, "however, in the case of genetics, future studies should include research on genetic variation in mothers and children so that the optimum advice can be given. This area is relatively new and will be challenging!"

The knowledge obtained by NUTRIMENTHE will contribute to the science base for dietary recommendations for pregnant women and children for improving mental performance.

The work and results of NUTRIMENTHE will be presented and discussed at the NUTRIMENTHE International Conference taking place at the Granada Conference and Exhibition Centre on the 13th and 14th of September.

Provided by University of Granada

Citation: Diet during pregnancy and early life affects children's behaviour and intelligence (2013, September 13) retrieved 25 April 2024 from <https://medicalxpress.com/news/2013-09-diet-pregnancy-early-life-affects.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.