

# Intelligence in young children is not influenced by omega 3 fatty acid

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(PhysOrg.com) -- Infant intelligence is more likely to be shaped by family environment than by the amount of docosahexaenoic acid (DHA), an omega 3 fatty acid, fed in breast milk or fortified formula, according to new research at the University of Southampton.

In this study, scientists followed 241 children from birth until they reached four years of age to investigate the relationship between breastfeeding and the use of DHA-fortified formula in infancy and performance in tests of intelligence and other aspects of [brain function](#).

The researchers, funded by the Medical Research Council and the Foods Standards Agency, found that after they had taken account of the influence of mothers' intelligence and level of education, there was no relationship between the estimated total intake of DHA in infancy and a child's IQ.

Dr Catharine Gale, from the University's MRC Epidemiology Resource Centre at Southampton General Hospital, led the study. She says: "This study helps to dispel some of the myths surrounding DHA. We do know that there are clear health benefits to [breast feeding](#) but DHA, which is naturally present in [breast milk](#) and added into some formulas, is not the secret ingredient that will turn your child into an Einstein.

"Children's IQ bears no relation to the levels of DHA they receive as babies. Factors in the home, such as the mother's intelligence and the quality of mental stimulation the children receive, were the most

important influences on their IQ.”

[Omega 3 fatty acids](#), particularly DHA, or [docosahexaenoic acid](#), are found in high concentrations in the brain and accumulate during the brain's growing spurt, which occurs between the last trimester of pregnancy and the first year of life. Although this research has shown a child's IQ is not influenced by DHA, previous studies have shown that a lack of DHA during periods of rapid brain growth may lead to problems in [brain development](#).

**More information:** “Breastfeeding, the use of docosahexaenoic acid-fortified formulas in infancy and neuropsychological function in childhood” - Archives of Disease in Childhood 2010:  
[DOI:10.1136/adc.2009.165050](https://doi.org/10.1136/adc.2009.165050)

Provided by University of Southampton

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