

Stereoacuity at age 3.5 y in children born full-term is associated with prenatal and postnatal dietary factors: a report from a population-based cohort study.

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BACKGROUND: Observational studies suggested that breast-feeding benefits the visual development of preterm children, which has been attributed to the presence of docosahexaenoic acid (DHA) in breast milk but not most formula milks. Randomized studies showed that preterm children require a dietary supply of DHA in the first few weeks of life for optimal visual development, but it is unclear whether full-term children experience similar benefits from breast milk or DHA supplements.

OBJECTIVE: The objective of this study was to compare stereoacuity at age 3.5 y in healthy, full-term children who were breast-fed and in similar children who had not been breast-fed after adjustment for socioeconomic status and maternal diet.

DESIGN: Prospectively collected data on maternal diet during pregnancy (including intake of oily fish), the child's diet, and the socioeconomic status of the family were examined. Stereoacuity at age 3.5 y was assessed.

RESULTS: Children who had been breast-fed for 4 mo were more likely to achieve high-grade stereopsis, or stereoscopic vision, than were children who had not been breast-fed (adjusted odds ratio: 2.77; 95% CI: 1.54, 4.97). The mother's antenatal blood DHA content was associated with her intake of oily fish ($P < 0.0001$). Children whose mothers ate oily fish during pregnancy were also more likely to achieve high-grade stereopsis than were children whose mothers did not eat oily fish (adjusted odds ratio: 1.57; 95% CI: 1.00, 2.45).

CONCLUSIONS: The results of this study suggest that for full-term infants, breast-feeding is associated with enhanced stereopsis at age 3.5 y, as is a maternal DHA-rich antenatal diet, irrespective of later infant feeding practice

