

Research Highlights: The Importance of DHA Beyond Infancy Children

Docosahexaenoic acid, DHA, is an omega-3 fatty acid that is found throughout the body. More specifically, it is an important structural fat in the brain and eyes and a key component of the heart. A growing body of research continues to support the role that DHA plays in maintaining good health throughout life. DHA is important for brain and eye development and function throughout the life cycle, but is particularly important during the first years of life and early childhood, as a child's brain is still steadily growing at age four.

Below are research highlights from studies examining the role of DHA in health and development in early life. (Please refer to the list of references.)

- DHA is the predominant omega-3 fatty acid found in the brain. DHA represents about 97% of all omega-3 fatty acids in the brain and 93% of all the omega-3 fatty acids in the eye (retina).¹⁻³
- Uptake of preformed DHA by the brain is significant between ages 2 and 5 and supports the substantial accumulation of DHA by the brain during this critical growth period.⁴
- One-year-old infants who received DHA-supplemented baby food since weaning showed improved vision, equivalent to 1.5 lines on the eye chart, compared to those who received baby food that did not contain DHA.⁵
- The body's production of DHA from alpha-linolenic acid (ALA) is limited.^{6,7}
- Including DHA in the diet is the most reliable way to ensure that DHA is available to support optimal brain and eye development and function.⁸
- DHA supplementation has been shown to improve blood lipid profiles and restore endothelial function in children with high cholesterol levels.^{9,10}
- Children ages 1-5 years were shown to have low DHA intakes ranging from 30-50 mg/day.^{11,12} This is because the primary dietary sources of DHA are fatty fish and organ meats which are not popular food choices for young children and DHA-fortified foods geared toward toddlers are limited.
- Typical complementary, finger, and table foods are low in DHA for children.¹³⁻¹⁴
- DHA supplementation is acceptable and well-tolerated by children.¹⁵
- Higher levels of DHA are associated with higher scores on a listening comprehension and vocabulary test in preschool children.¹⁵
- Higher levels of DHA are associated with higher scores on the Peabody Picture Vocabulary Test in preschool children.¹⁵
- Higher scores on the Peabody Picture Vocabulary Test in preschool children are associated with school readiness, higher verbal ability in preschool children, and with prediction of better school success.¹⁶

References

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