



Fatty acids play an important role in the development of vision, learning ability and co-ordination.

# Brain nutrition for children

Children need food rich in fatty acids for proper brain development, writes  
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**Y**OU hear a lot about docosahexaenoic acid (DHA) these days and what it does for growing children.

But then again, how much do you understand? It is not only the amount of fat that is important for growing brains, it is also about the type of fat. Children need the right kind of fats to achieve optimal neural development (brains) and visual acuity (eye development).

First of all, fats make up 60 per cent of the brain. Brain and nerve cells have a high concentration of fatty acids that are predominantly long-chain polyunsaturated fatty acids (LCPs). The major LCPs found in the brain tissues are docosahexaenoic acid (DHA) and arachidonic acid (AA).

DHA is the primary structural component of tissue in the brain and retina of the eye.

As children grow and develop, the need for DHA is particularly important during the first two years of life and early childhood when the brain and eyes are rapidly growing and developing. A deficiency of DHA could translate into poor brain and eye function.

Young children who receive DHA supplementation exhibit a range of advantages including improved vision over those who did not receive DHA supplementation.

Omega-6 fatty acid derivatives that are of equal importance are arachidonic acid (AA) and gamma-linolenic acid (GLA).

AA, present in the membranes of the body's cells, is required for normal transmission of messages along nerves and proper memory function.

Like DHA, AA plays an important role in the development of vision, learning ability and co-ordination.

Studies have shown that children with learning disorders such as dyslexia have lower amounts of AA, DHA and GLA in their blood plasma and red blood cell membranes.

Better intake of DHA, AA and GLA builds better brain. This is

why an omega-3 and omega-6 formulation is critical in the formative years.

Although a balanced diet provides a sound nutritional base, children usually do not eat enough of the food (sardine, tuna, walnut, plant seeds) that provide them with the much needed fatty acids for proper brain and eye development. Therefore, supplementation may be considered.

According to a research published in *The Journal of Pediatrics* in March, researchers found that increased intake of DHA during pregnancy could produce improved motor function in the offspring in later life.

Studying 109 Inuit infants in Arctic Quebec, the researchers reported that levels of DHA in the mothers were directly related to levels in the umbilical cord, and subsequently in the foetus.

Increased levels were linked to improved visual, cognitive and motor development in the children.

Mothers who ate enough of the fatty acid are also said to be less at risk of post-natal depression or mood change, and they recover more quickly after pregnancy.

The research adds to our understanding of how omega-3 plays an important role in the development of the baby.

A wealth of other studies report that a diet rich in DHA omega-3 fatty acid during pregnancy and breastfeeding is associated with healthy pregnancies as well as the mental and visual development of infants.

For mothers-to-be, a good alternative would be to supplement the diet with tuna oil as it contains higher amount of DHA.

■ **The writer is a pharmacist who is actively involved in the dissemination of information on natural healthcare and holistic therapies. For more information, she can be contacted at [csyam@streamyx.com](mailto:csyam@streamyx.com)**