For the best start in life.

The importance of the right fatty acids in infant nutrition products

Meeting baby's essential nutritional needs

Docosahexaenoic acid (DHA) and arachidonic acid (ARA) are long-chain polyunsaturated fatty acids (LC-PUFAs) found in breastmilk. They play important roles in the growth and development of infants. Experts agree these fatty acids can contribute to brain, eye, and immune system development and function.[1]

DHA and ARA each play a unique role in brain development and function. Considering their presence in breastmilk, infant nutrition experts recommend adding both DHA and ARA to infant formula and follow-on formula, and have done so for nearly two decades.[1] Based on scientific evidence and expert recommendation, formulas continue to be supplemented with these fatty acids in order to resemble breastmilk composition.

Science Digest:
Fatty Acids in the Brain

Both DHA and ARA are major LC-PUFAs found in the brain. Breastmilk provides both of these fatty acids, but ARA levels typically exceed those of DHA.[2,3]

DHA *is the primary omega-3 fatty acid in the brain.*

ARA *is the primary omega-6 fatty acid in the brain.*

Breastmilk:
The Gold Standard

Breastmilk is the best source of nutrition for infants. The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life and continued breastfeeding, with appropriate complementary foods, up to two years of age or longer.

Experts recognize breastmilk as the gold standard for infant feeding. The amount of DHA and ARA in breastmilk varies depending on several factors, including the mother's diet and nutritional status, and whether an infant was born at term or preterm. Even though levels of DHA and ARA vary between mothers, both fatty acids are always present in breastmilk all around the world.[2,4] Ensuring optimal nutrition early in life has long term benefits, and adequate DHA and ARA intake during this time is vital to support growth and development.[1,5]

DHA and ARA together promote growth and development

The safety and benefits of providing DHA together with ARA in infant formula and follow-on formula are well-known. However, a recent European Commission (EC) regulation deviates from the previous EC regulations and the standard practice of supplementing infant formula and follow-on formula with both DHA and ARA.[6]

The new regulation states that infant formula and follow-on formulas should have higher levels of DHA than are typically found in breastmilk, while authorizing formula to be marketed with or without ARA. This is in conflict with breastmilk composition, which always provides both DHA and ARA, and is the benchmark for infant formula design.

ARA levels in infants are directly impacted by their diet and genetics. Compared with breastfed infants, those fed formula without ARA have lower levels of ARA in their bodies.[10,11] In addition, some infants have certain genes that make it more difficult for them to make both ARA and DHA, and especially ARA.

Supplemental ARA helps prevent a decline in ARA status. Low ARA levels may affect brain development and increase the risk of developing asthma.[12] Ensuring adequate ARA in infant formula, along with DHA, is the best way to support healthy growth and development in infants who are not exclusively breastfed.[5]

Science Digest: *Adequate Levels Matter*

Providing both DHA and ARA early in life is important. Recent studies show the ratio of DHA to ARA appears to matter.

Supplementing infant formula with ARA at levels at least equal to the level of DHA lead to brain, eye and motor skill assessments closer to those reported for breastfed infants.[5,7-9] In contrast, when the DHA level in infant formula is higher than the level of ARA, the benefits of adding these fatty acids appear to decline.[8]

Scientific findings do not seem to support the addition of higher levels of DHA without ARA to infant or follow-on formulas.

The world's leading experts agree

Recently, the European Academy of Paediatrics and the Child Health Foundation gathered 26 international experts in infant nutrition to review the latest scientific evidence available on DHA and ARA supplementation during infancy. Following their review, a position paper was published emphasizing the importance of providing both DHA and ARA in formula for infants.[1] This conclusion was supported by a joint expert panel of the Food and Agriculture Organization (FAO) of the United Nations and the WHO.[13]

What you should look for in an infant formula

As parents, you want to know that what you feed your baby meets his nutritional needs and helps him achieve optimal health and development.[1] To ensure your baby is getting adequate levels of DHA and ARA, breastfeeding is always the first choice! However, when breastfeeding is not feasible then infant formulas with at least 0.3% DHA — but preferably 0.5% DHA — are recommended by experts. Check the label to ensure that the level of ARA is at least equal to DHA. Remember, infant formulas should contain both DHA and ARA.

For more information about the importance of early life nutrition, consult your pediatrician.

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