

Researchers find enriched infant formulas benefit brain and heart

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University of Kansas scientists have found new evidence that infant formulas fortified with long chain polyunsaturated fatty acids (LCPUFA) are good for developing brains and hearts.

In the randomized, double-blind study, 122 term infants were fed one of four formulas from birth to 12 months; three with varying levels of two LCPUFAs ([DHA](#) and ARA) and one formula with no LCPUFA, and tested at four, six and nine months of age.

By simultaneously measuring the [heart rate](#) and visual [attentiveness](#) of infants while they looked at images of adult human faces, John Colombo and Susan Carlson found that infants who were fed fortified formula were more cognitively advanced and their heart rates were lower than infants who were fed formula without LCPUFA. The formula with the lowest level of LCPUFA — 0.3 percent level — was found to be sufficient to produce these benefits.

The study is the first randomized clinical trial of postnatal DHA supplementation to measure attention.

Colombo, a neuroscientist who specializes in the measurement of early neurocognitive development, said that the findings add to the mounting evidence that these nutritional compounds positively affect brain and behavioral development.

DHA or docosahexaenoic acid is an essential long-chain fatty-acid that

affects brain and eye development, and babies derive it from their mothers before birth and up to age two. But the American diet is often deficient in DHA sources such as fish.

ARA or arachidonic acid is another LCPUFA that is present in breast milk and commercial formula.

The study was published in the October 2011 issue of *Pediatric Research*.

Provided by University of Kansas

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