

Prenatal DHA reduces early preterm birth, low birth weight

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(Medical Xpress)—University of Kansas researchers have found that the infants of mothers who were given 600 milligrams of the omega-3 fatty acid DHA during pregnancy weighed more at birth and were less likely to be very low birth weight and born before 34 weeks gestation than infants of mothers who were given a placebo. This result greatly strengthens the case for using the dietary supplement during pregnancy.

Susan CarlsonThe results are from the first five years of a 10-year, double-blind [randomized controlled trial](#) to be published in the April issue of the [American Journal of Clinical Nutrition](#). It is also available online. A followup of this sample of infants is ongoing to determine whether prenatal DHA nutritional supplementation will benefit children's intelligence and school readiness.

"A reduction in early preterm and very [low birth weight](#) delivery could have clear clinical and public health significance," said Susan Carlson, A.J. Rice Professor of Dietetics and Nutrition at the KU Medical Center, who directed the study with John Colombo, KU professor of psychology and director of the Life Span Institute.

John Colombo"We believe that supplementing U.S. women with DHA could safely increase mean birth weight and [gestational age](#) to numbers that are closer to other developed countries such as Norway and Australia," she said.

DHA (docosahexaenoic acid) occurs naturally in cell membranes with

the highest levels in [brain cells](#), but levels can be increased by diet or supplements. An infant obtains DHA from his or her mother in utero and postnatally from [human milk](#), but the amount received depends upon the mother's DHA status.

"U.S. women typically consume less DHA than women in most of the developed world," said Carlson.

During the first five years of the study, children of women enrolled in the study received multiple developmental assessments at regular intervals throughout infancy and at 18 months of age. In the next phase of the study, the children will receive twice-yearly assessments until they are 6 years old. The researchers will measure developmental milestones that occur in later childhood and are linked to lifelong health and welfare.

Previous research has established the effects of postnatal feeding of DHA on infant cognitive and intellectual development, but DHA is accumulated most rapidly in the fetal brain during pregnancy, said Colombo. "That's why we are so interested in the effects of [DHA](#) taken prenatally, because we will really be able to see how this nutrient affects development over the long term."

More information: [ajcn.nutrition.org/content/ear ...
.112.050021.abstract](https://ajcn.nutrition.org/content/ear...112.050021.abstract)

Provided by University of Kansas

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