

Maternal fish consumption aids infants in problem-solving

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Pregnant and nursing women should consume fish or take supplements with the omega-3 fatty acid DHA, as a new study found that just a moderate amount of DHA significantly improves fetal and infant development of problem-solving abilities, according to Carol Lammi-Keefe, who is now an LSU professor.

The American Journal of Clinical Nutrition published a report on this new finding in its June issue.

DHA, or docosahexaenoic acid, is most often found in fish oil from cold water marine fish. The human body needs DHA because it is a major fatty acid for healthy brain and eye cell development and function. The FDA tells pregnant women to consume a maximum of 12 ounces of fish a week. To increase their intake of DHA, Lammi-Keefe suggests women consume a couple of tuna sandwiches and another serving of fish, such as salmon, on a weekly basis.

When selecting canned tuna, light tuna is better for pregnant women than white or albacore tuna. Pregnant women should avoid the predator fish because they have high mercury content, including large tuna, shark and tilefish, she said.

“The work that’s been done shows that the benefits of eating the maximum recommended amount of fish outweighs the risks of over-consumption of mercury,” Lammi-Keefe said.

“Canned tuna and canned salmon are a very affordable option for women of all socioeconomic backgrounds.”

For the study, 29 pregnant women ages 18 to 35 at less than 20 weeks gestation were given cereal bars supplemented with DHA in a double-blind, placebo-controlled, randomized trial. Researchers administered various tests at specific points to best assess the effects of DHA on the infants’ vision, sleep, behavior and problem-solving development.

The new report addresses infant problem-solving development at nine months using psychologist P. Willatts’ Infant Planning Test, a standardized two-step development test that requires an infant to understand and remember a task in order to get a toy. Researchers video recorded the infants taking the test and then scored the recordings.

Prior research had shown that when premature infants were given formula supplemented with DHA, it helped the infants’ brain development. Using this knowledge, Lammi-Keefe reasoned that it would be even more advantageous to provide additional DHA in the earliest and most critical stage possible for a child’s development, which is during fetal development.

“What that means long term is that if I look at our data and that of other labs worldwide, what happens in utero has a long-term affect on how a child performs in school,” Lammi-Keefe said. “A lot more work needs to be done, but we’ve found one piece in the puzzle.”

One project she is considering for study in the future is looking at how DHA affects women who develop diabetes during pregnancy.

Lammi-Keefe headed the research as the study’s primary investigator and is continuing to analyze, interpret and publicize the data. Her work on the subject spans more than 15 years.

Source: LSU

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