

# Study: Omega-3 consumed during pregnancy curbs risk for postpartum depression symptoms

April 12 2011

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Fish has long been considered in myriad cultures to be "brain food," but only recently has bona fide science begun to support this deep-rooted belief. Researchers now know that the [omega-3 fatty acids](#) found in [oily fish](#) such as [salmon](#) and herring may play a critical role in both development and maintenance of the brain and nerves. Although sufficient amounts of these long-chain fats can be synthesized endogenously by most adults, experts recommend that [pregnant women](#) and infants get additional amounts of these compounds from their diets. This, combined with research suggesting that these fats play a critical role in cognitive and visual development during early life, has prompted much research and product development aimed at pregnant women and [newborn infants](#). Studies have also suggested that higher consumption of certain omega-3 fatty acids may also benefit adult mental health as well – for instance, as it might relate to lower risk for [depression](#).

Dr. Michelle Price Judge, a faculty member at the University of Connecticut School of Nursing, is keenly interested in how omega-3 fatty acids consumed during pregnancy impact both maternal and infant health. She has demonstrated previously that maternal consumption of docosahexaenoic acid (DHA; a prominent omega-3 fatty acid) during

pregnancy gives infants a developmental advantage even 9 months after they are born. These findings prompted her to consider the benefits that DHA could holistically have on the maternal-infant dyad. Specifically, might greater omega-3 fatty acid intake during pregnancy lower risk for [postpartum depression](#), a condition that leads to a multitude of problems including interruptions in maternal-infant attachment and subsequent impairments in later infant development? As part of the scientific program of the American Society for Nutrition, results from this study will be presented on April 12 at the Experimental Biology 2011 meeting in Washington, DC.

To answer this question, Dr. Judge oversaw a randomized, double-blind, placebo-controlled dietary intervention trial in which 52 pregnant women took either a placebo (corn oil) or a fish oil capsule containing 300 milligrams of DHA 5 days each week from 24-40 weeks of pregnancy. This is the amount a woman would consume if she ate about ½ serving of salmon. It is noteworthy that dietary DHA intake during pregnancy has been estimated to be 50-70 milligrams of DHA daily: a mere fraction of the 200 milligrams daily that is considered optimal during pregnancy by most experts. Using the Postpartum Depression Screening Scale developed by her colleague and coauthor Dr. Cheryl Beck, Judge was able to categorize postpartum women as having negligible depressive symptoms, significant symptoms of postpartum depression, or being "positive" for this condition. The Postpartum Depression Screening Scale also assisted the research team in discerning between several symptoms specific to the disorder including sleeping/eating disturbances, anxiety, emotional lability, confusion, loss of self, guilt, and thoughts of suicide.

Although the study did not have enough women to investigate if fish oil consumption resulted in a lower incidence of diagnosable postpartum depression, women in the treatment group had significantly lower total Postpartum Depression Screening Scale scores, with significantly fewer

symptoms common to postpartum depression. For example, compared to those in the control group, women in the fish oil group were less likely to report symptoms related to anxiety and loss of self.

Judge and coworkers concluded "DHA consumption during pregnancy – at levels that are reasonably attained from foods – has the potential to decrease symptoms of postpartum depression." Why is this important? For starters, some experts estimate that postpartum depression affects a whopping 25% of new mothers. And healthcare providers agree that this condition can have devastating consequences, not only for the women experiencing it but also for their children and family.

The bottom line? Although larger-scale intervention studies will be needed to better understand the mechanisms and magnitude by which fish oil consumption can improve postpartum mental health, women would be wise to eat at least a serving of high-omega-3 fish 2-3 days per week. Although fish oil supplements may be more acceptable to some women, the real thing is clearly the more nutritious option as a serving of fish is also protein- and mineral-rich. Clearly, fish as a "brain food" is gaining the nod from not only from the general public, but scientists as well.

Provided by Federation of American Societies for Experimental Biology

Citation: Study: Omega-3 consumed during pregnancy curbs risk for postpartum depression symptoms (2011, April 12) retrieved 13 May 2024 from <https://medicalxpress.com/news/2011-04-omega-consumed-pregnancy-curbs-postpartum.html>

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