Very Low Intakes of EPA/DHA Among Childbearing-Age and Pregnant Women

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Reference:


Zhang, Z. et al., Nutrients, 10: in press, 2018

The Nature’s Bounty Co., Ronkonkoma, NY, USA

Summary:

The long-chain omega-3 fatty acids, EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), as commonly found in fish/seafood and fish oil-derived plus selected algal supplements, provide many health effects including cardiovascular health, mental performance, visual acuity, and anti-inflammatory support. Higher DHA intakes during pregnancy have been associated with a lower prevalence of low birthweight infants, reduced infant admissions to intensive care, and lessened hospitalization days for premature infants.

The current study determined the dietary intakes of EPA and DHA omega-3 fatty acids amongst 11,465 childbearing-age and 1180 pregnant women in the United States during the 2001-2014 period using nutrition survey data from NHANES. The estimated omega-3 fatty acid intakes were then related to recommended target intakes based on the 2015-2020 Dietary Guidelines for Americans (DGA). The DGA advised that the general population should consume about 8 ounces per week of a variety of seafood providing approximately 250 mg/day of EPA plus DHA and that pregnant women should consume 8 – 12 ounces per week.

The researchers found that none of the subjects met the DGA recommendation for seafood intake with 95 % failing to meet the target daily intakes of 250 mg EPA plus DHA. For pregnant women, the average daily intakes of EPA plus DHA from foods and foods plus supplements were 79 and 98 mg, respectively, with 60 and 77 mg, respectively, being present as DHA. It is
noted that these DHA intakes are very close to that reported earlier for pregnant Canadian women by direct assessment (average of 82 mg/day) from our lab (J. Nutr., 135: 206-211 (2005)).

Dr. Holub’s Comments:

The present study indicates that the low intake of fish/seafood and the limited use of EPA/DHA supplements is responsible for the striking nutrient shortfall of these important long-chain omega-3 fatty acids amongst childbearing-age and pregnant women. With respect to DHA specifically, average daily intakes during pregnancy were well below the recommended targets of 200 - 300 mg DHA/day from various international organizations and agencies. Improved nutritional education of childbearing-age and pregnant women to ensure adequate dietary intakes of these omega-3 fatty acids for optimal health of mother and child and the use of prenatal supplements containing such where needed to meet established targets is advised.