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Research published in the Journal of Nutrition demonstrates that the majority of the pediatric population may fall short of recommended dietary intakes of omega-3 fatty acids.

OMEGA-3 FATTY ACID INTAKES ARE BELOW RECOMMENDATIONS IN MOST CHILDREN

Although recommended intakes of essential fatty acids and omega-3 fats such as DHA have emerged for the pediatric population, estimates of dietary intake of these beneficial fatty acids are limited in children.

A study in the *Journal of Nutrition* has published direct quantification of fatty acid intakes in children aged 4-8 years. Identical portions of all food and dietary supplements consumed over 3 days were collected. Duplicate samples were analyzed for calories, macronutrients, and fatty acids, including alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), docosapentaenoic acid (DPA), and docosahexaenoic acid (DHA).

Based on the dietary analysis, the 41 children aged 4-8 years averaged 1,404 kcal per day, and their fatty acid intakes were at the following levels in mg/day: alpha-linolenic acid 1,611; EPA 38.4; DPA 26.3; and DHA 54.1. Based on the government recommended Dietary Reference Intakes (DRI), 61% of the children met the adequate intake for ALA, and only 22% met the recommended intake for DHA + EPA. These intakes were compared with recently established Australia/New Zealand recommendations for children, where only about half the children (51%) met suggested intakes for EPA + DPA + DHA.

The result of this study indicate a significant deficit in the intakes of polyunsaturated fatty acids, including DHA, among Canadian and Australian children when compared to suggested and recommended intakes.

Madden SM, Garrioch CF, Holub BJ. Direct diet quantification indicates low intakes of (n-3) fatty acids in children 4 to 8 years old. J Nutr. 2009 Mar;139(3):528-32.