

Abstract

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The Impact of Polyunsaturated Fatty Acids in Reducing Child Attention Deficit and Hyperactivity Disorders.

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OBJECTIVES: To review the impact of polyunsaturated fatty acids (PUFA) in reducing ADHD symptoms in children.

METHODS: Peer-reviewed experimental literature published from 1980 to May 2009 is consulted (Psychinfo, Medline, and resulting reference lists).

RESULTS: Placebo-controlled studies with ADHD or hyperactive children show no effects on behaviors or cognition when only n-6 (omega-6) PUFA, only docosahexaenoic acid (DHA), or n-6 and n-3 (omega-3) short-chain PUFA are supplemented. Yet three out of four studies suggest that a combination of long-chain n-3 and n-6 fatty acids (DHA, eicosapentaenoic acid [EPA], and gamma-linolenic acid [GLA]) supplemented daily for 3 to 4 months could lead to a reduction in ADHD symptomatology. Results on cognitive outcomes are inconsistent.

CONCLUSIONS: Evidence is too limited to reach definitive conclusions but suggests that research on the impact of long-chain PUFA (n-3 and n-6) should continue with special focus on individual differences (genetic and fatty acid markers), mechanisms (brain imaging), and new enhanced methods of systematic observations of behaviors.

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