Clinical Insights

Dietary Supplement Information Bureau
Research Update
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Fish Oil Taken Throughout Life Improves Old Age Cognition

American Journal of Clinical Nutrition (80, 6:1650-1657, 2004)

ABERDEEN, Scotland--Scientists conducted an observational study examining the effects of food supplement use on cognitive aging on subjects born in 1936, and tested for mental ability in 1947. The subjects were followed up in 2000 and 2001, at which time cognition, diet, food supplement use, and risk factors for vascular disease were assessed. In a nested case-control study, fish oil users were matched with nonusers, and cognitive function was related to erythrocyte omega 3 essential fatty acid (EFA) composition.

Among the study's results, published in the December issue of the American Journal of Clinical Nutrition (80, 6:1650-1657, 2004) (the scientists found childhood intelligence quotient (IQ) did not differ significantly by category of food supplement use; however, at the age of 64 years, cognitive function was higher in food supplement users than in nonusers before adjustment for childhood IQ. After adjustment for childhood IQ, digit symbol (mental speed) test scores also were higher in food supplement users. Furthermore, fish oil supplement users were found to have consumed more vitamin C and vegetable and cereal fiber than did non supplement-users.

Omega-3 content was higher in fish oil supplement users than in nonusers, but cognitive function did not differ significantly between the groups. Total EFAs and the ratio of docosahexaenoic acid (DHA) to arachidonic acid were associated with better cognitive function later in life before and after adjustment for childhood IQ.

CONCLUSION:

The scientists concluded, omega-3 supplement use is associated with better cognitive aging. If associations with omega 3 content are causal, optimization of omega 3 and omega 6 fatty acid intakes could improve retention of cognitive function in old age.