

Research Highlights: The Benefits of DHA for Adults and the Elderly

Docosahexaenoic acid, DHA, is an omega-3 fatty acid that is found throughout the body. More specifically, it is a major structural fat in the brain and eyes and a key component of the heart. A growing body of research continues to support the role that DHA plays in maintaining good health throughout every stage of life. Below are research highlights from studies examining the role of DHA in adult and elderly health. (Please refer to the list of references.)

- DHA is the predominant omega-3 fatty acid found in the brain, representing about 97% of all omega-3 fatty acids in the brain. It is especially concentrated in the region of the brain that is responsible for complex thinking skills.^{1,2}
- DHA is concentrated in the retina and membranes of the eye. It represents 93% of all omega-3 fatty acids in the eye.²
- Low levels of DHA in red blood cells have been associated with cognitive decline in healthy elderly people.³
- Findings from a large observational study indicate that intake of the omega-3 fatty acid, DHA, and especially the ratio of omega-3 to omega-6 fatty acids, independent of childhood IQ, is important in the retention of cognitive function later in life.⁴
- Observational studies indicate that a high intake of fish, a good source of DHA, may be associated with a reduced risk for developing Alzheimer's, dementia⁵ and a slowing of normal, age-related, cognitive decline.⁶
- One study showed that people with the highest levels of plasma DHA (the top 20% of those in the study) had a significant (47%) reduction in the risk of developing dementia from any cause. After 9 years of follow-up, subjects with the highest levels of plasma DHA were less likely to develop Alzheimer's disease.⁷
- Results of a Swedish cohort study suggest that n-3 fatty acids, especially DHA, are positively associated with peak bone mineral density in the total body and spine in healthy, young men.⁸
- DHA is important for cardiovascular health. There does not appear to be significant differences in triglyceride-lowering benefits between DHA only and DHA + EPA combination products when dosing is based on DHA.⁹
- Evidence from observational and randomized controlled trials suggests a possible role of dietary long-chain omega-3 fatty acids, including DHA, in protection against ischemic stroke, the most common type of stroke in the U.S. and leading cause of long-term disability.^{10,11}
- In a study involving transgenic Alzheimer's mice, DHA supplementation lead to a 70% reduction in insoluble plaque, a 25% reduction in amyloid plaque burden, and an improvement in learning and memory.¹²
- Total omega-3 fatty acid consumption and consumption of DHA (but not ALA or EPA) are associated with a significant reduction in the incidence of Alzheimer's.¹³
- In a study of 364 non-demented elderly from a cohort of 2000 studied for childhood IQ, plasma DHA was a significant predictor of IQ at age 64.¹⁴

References

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