

# Clinical Update

## **DHA brain benefits may extend to middle age**

Increased intakes of the omega-3 fatty acid DHA (docosahexaenoic acid) may improve mental function in middle age people, suggests a new study from the US.

*(Journal of Nutrition, February 2010)*

Increased blood levels of DHA were associated with improved nonverbal reasoning and working memory in people between 35 and 54, but intakes of other omega-3 fatty acids ALA (alpha-linolenic acid) and EPA (eicosapentaenoic acid) were not, according to findings published in the *Journal of Nutrition*.

*“These findings suggest that DHA is related to brain health throughout the lifespan and may have implications for clinical trials of neuropsychiatric disorders,”* wrote the researchers, led by Matthew Muldoon from the University of Pittsburgh.

The potential brain boosting benefits of omega-3 have been reported by numerous studies, most recently at the Alzheimer's Association 2009 International Conference on Alzheimer's Disease (ICAD 2009) in Vienna. Scientists reported that daily supplements with the omega-3 fatty acid docosahexaenoic acid (DHA) may improve both memory function and heart health in healthy older adults. The study presented at the Alzheimer's conference was funded by Martek Biosciences.

### **Study details**

Muldoon and his co-workers analysed data from 280 community-dwelling people aged between 35 and 54. The participants were not taking fish oil or omega-3 supplements and were free of major neuropsychiatric disorders. Blood levels of ALA, EPA, and DHA were correlated with five major dimensions of cognitive functioning of neuropsychological tests. Average levels of the fatty acids were 0.16, 0.49, and 1.52, respectively, as a percentage of the total phospholipid fatty acids.

*“Higher DHA was related to better performance on tests of nonverbal reasoning and mental flexibility, working memory, and vocabulary,”* said the researchers. Furthermore, increasing levels of DHA were associated with improved mental function in a “generally linear” relationship, they said. On the other hand EPA and ALA were not associated with cognitive performance.

*“Among the 3 key omega-3 PUFA, only DHA is associated with major aspects of cognitive performance in non-patient adults younger than 55 y old,”* concluded Muldoon and his co-workers.

Source: [www.nutraingredients.com](http://www.nutraingredients.com)