

### Omega-3 with vitamin E shows potential for autistic children

**A new study indicates a combination of omega-3 fatty acids and vitamin E may lead to speech improvements in autistic children with verbal disorders.**

Verbal apraxia is a speech disorder common in autism; an estimated 50 per cent of children with autism have apraxia. Furthermore, thousands of non-autistic children are reported to have apraxia.

Apraxia is a neurological disorder characterized by loss of the ability to execute or carry out learned purposeful movements, despite having the desire and the physical ability to perform the movements. It is a disorder of motor planning which may be acquired or developmental, but may not be caused by incoordination, sensory loss, or failure to comprehend simple commands (which can be tested by asking the person to recognize the correct movement from a series). Apraxia should not be confused with aphasia, an inability to produce and/or comprehend language, or abulia, the lack of desire to carry out an action.

According to new research published in the journal *Alternative Therapies in Health and Medicine*, daily supplements of omega-3 and vitamin E were associated with improvements in numerous aspects of function and behaviour associated with autism.

The researchers recruited families with an autistic child. Following supplementation with omega-3 and vitamin E, 181 families (97 per cent) reported “*dramatic improvements in a number of areas*”, said the researchers. These included speech, behaviour, eye contact, and other sensory issues.

*“We characterize a novel apraxia phenotype that responds to polyunsaturated fatty acids and vitamin E,”* wrote the researchers.

The sub-type that may be responsive to this type of nutritional intervention is characterized by autism, sensory issues, low muscle tone, food allergy, coordination problems, and impaired gastrointestinal function.

Antidotal evidence had previously shown that omega-3 can help children with apraxia and those known as ‘late talkers’. The researchers discovered that their symptoms presented by children with apraxia mirror those of vitamin E deficiency. According to the research team, “The addition of high dose vitamin E with omega-3 fatty acids is the breakthrough.”

Source: *Alternative Therapies in Health and Medicine*

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*"Syndrome of allergy, apraxia, and malabsorption: Characterisation of a neurodevelopmental phenotype that responds to omega-3 and vitamin E supplementation"*

Authors: C.R. Morris, M.C. Agin

### Omega-3 fish oils linked to improved male fertility

Infertile men have lower levels of omega-3 fatty acids in their sperm than fertile men, suggests new research that opens up the possibility for omega-3 supplementation to boost sperm quality.

The ratio of omega-6 to omega-3 was also found to be higher in infertile men, according to findings from a study with 150 men in Iran in the peer-reviewed journal *Clinical Nutrition*. *"These results suggest that research should be performed to assess the potential benefits of omega-3 fatty acid supplementation as a therapeutic approach in infertile men,"* wrote the researchers, led by Mohammad Reza Safarinejad from Shahid Beheshti University in Tehran, Iran.

The study adds to a small but growing body of evidence supporting the importance of balance between omega-3 omega-6 fatty acids for mammalian fertility.

*"A high proportion of omega-6 fatty acids in the spermatozoa is a distinctive feature of infertile men. There is a growing body of evidence that the fatty acid composition of sperm membranes, determine their physiological characteristics,"* wrote the researchers. *"The data tend to support a possible beneficial effect of omega-3 fatty acid supplementation among patients with [defective production of sperm],"* said the researchers.

*Clinical Nutrition*

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*"Relationship of omega-3 and omega-6 fatty acids with semen characteristics, and anti-oxidant status of seminal plasma: A comparison between fertile and infertile men"*

Authors: M.R. Safarinejad, S.Y. Hosseini, F. Dadkhah, M.A. Asgari

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