

## Tampa Dr. Nelson Mane States, “Autism Treatment: Essential Fatty Acids”

As a physician who treats ADHD and Autism Spectrum Disorders one always see such a variety of symptoms and severity of symptoms. As ASD is thought to be multifactorial it is always important to get as specific as possible with the treatments so as not to waste the time and resources of both the doctor and family. We use a sensory motor hemispheric approach but always try to eliminate any of the common scientifically established links to autism and the conditions associated with this spectrum of disorders. As such, one of the supplements found to help children suffering with these conditions are Omega 3 fatty acids. Let’s go to the literature.

### **Omega-3 fatty acids supplementation in children with autism: a double-blind randomized, placebo-controlled pilot study.**

1: Biol Psychiatry. 2007 Feb 15;61(4):551-3. Epub 2006 Aug 22.

[Amminger GP](#), [Berger GE](#), [Schäfer MR](#), [Klier C](#), [Friedrich MH](#), [Feucht M](#).

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**BACKGROUND:** There is increasing evidence that fatty acid deficiencies or imbalances may contribute to childhood neurodevelopmental disorders. **METHODS:** We conducted a randomized, double-blind, placebo-controlled 6-week pilot trial investigating the effects of 1.5 g/d of omega-3 fatty acids (.84 g/d eicosapentaenoic acid, .7 g/d docosahexaenoic acid) supplementation in 13 children (aged 5 to 17 years) with autistic disorders accompanied by severe tantrums, aggression, or self-injurious behavior. The outcome measure was the Aberrant Behavior Checklist (ABC) at 6 weeks. **RESULTS:** We observed an advantage of omega-3 fatty acids compared with placebo for hyperactivity and stereotypy, each with a large effect size. Repeated-measures ANOVA indicated a trend toward superiority of omega-3 fatty acids over placebo for hyperactivity. No clinically relevant adverse effects were elicited in either group. **CONCLUSIONS:** The results of this study provide preliminary evidence that omega-3 fatty acids may be an effective treatment for children with autism.

### **Plasma fatty acid levels in autistic children.**

1. Prostaglandin Leukot Essent Fatty Acids. 2001 Jul;65(1):1-7.

[Vancassel S](#), [Durand G](#), [Barthélémy C](#), [Lejeune B](#), [Martineau J](#), [Guilloteau D](#), [Andrès C](#), [Chalon S](#).

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Phospholipid fatty acids are major structural components of neuronal cell membranes, which modulate membrane fluidity and hence function. Evidence from clinical and biochemical sources have indicated changes in the metabolism of fatty acids in several psychiatric disorders. We examined the phospholipid fatty acids in the plasma of a population of autistic subjects compared to mentally retarded controls. Our results showed a marked reduction in the levels of 22: 6n-3 (23%) in the autistic subjects, resulting in significantly lower levels of total (n-3) polyunsaturated fatty acids (PUFA) (20%), without significant reduction in the (n-6) PUFA series, and consequently a significant increase in the (n-6)/(n-3) ratio (25%). These variations are discussed in terms of potential differences in PUFA dietary intake, metabolism, or incorporation into cellular membranes between the two groups of subjects. These results open up interesting perspectives for the investigation of new biological indices in autism. Moreover, this might have new therapeutic implications in terms of child nutrition. Copyright 2001 Harcourt Publishers Ltd.

### **Role of polyunsaturated fatty acids in the management of Egyptian children with autism.**

1. Clin Biochem. 2008 Sep;41(13):1044-8. Epub 2008 Jun 12.  
[Meguid NA](#), [Atta HM](#), [Gouda AS](#), [Khalil RO](#).

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**OBJECTIVE:** Estimation of free polyunsaturated fatty acids (PUFAs) in blood and evaluation of behavior of autistic children before and after taking fish oil (Efalex) were performed. **DESIGN AND METHODS:** 30 autistic children (18 males and 12 females) aged 3-11 years and 30 healthy children as control group were included in this study. Tandem mass spectrometry and CARS were used to estimate the free PUFAs from dried blood spot and to evaluate the autistic behavior respectively. **RESULTS:** Before taking Efalex, linolenic acid showed a significant reduction (71%), followed by docosahexaenoic acid (65%) and arachidonic acid (45%), while linoleic acid was the least affected PUFA (32%). After taking Efalex, 66% of autistic children showed clinical and biochemical improvement, linolenic acid and docosahexaenoic acid showed the highest levels after Efalex supplementation. **CONCLUSION:** PUFA supplementation may play an important role in ameliorating the autistic behavior.

These studies support that children with ADHD Aspergers tourettes, OCD and Autism should consider Omega 3 supplementation as part of their treatment program and discuss these issues with their physician.

For more information about Dr. Mane's approach in treating children suffering Autism and ADD/ADHD visit our website at <http://www.manecenter.com/ADHD.htm>.

Dr. Mane offers one on one consultation as well as Group Seminars. If you are interested in scheduling a consultation or to attend a seminar please call 813-935-4744.