

Fish Oil Supplementation and Autism/Asperger's Syndrome: A New Study

Two American researchers, Louise Patrick, SLP, and Ronald M. Salik, MD, have recently reported the results of a clinical trial of the effects of a fish-oil supplement on language development and learning skills in children with autism or Asperger's syndrome. Fish oil provides essential fatty acids (EFAs), which are critical for brain health. Children with attention deficit, autistic, and related disorders have been shown to have significantly lower levels of EFAs in their red blood cells.

The Patrick-Salik trial was an open-label study involving children aged 3 to 10 years who had been diagnosed with autism or Asperger's syndrome by a pediatric neurologist or qualified pediatric specialist. Children with a diagnosis of seizures, an allergy to fish or borage oil, or who were currently taking an EFA supplement were excluded. Parents were asked to refrain from adding new therapies during the study, and parental consent was obtained for each child.

The supplement, Complete™ Omega from Nordic Naturals, combines omega-3 from fish oil and omega-6 from borage oil to provide 247 mg EPA and DHA, 40 mg GLA, and 14 IU Vitamin E. The children were each given a one gram Complete Omega capsule (one-half the adult dose) per day for 90 days. Capsules were used because they offer consistent, simple dosing (Complete Omega is also available in a liquid). If swallowing the capsule proved difficult, parents were encouraged to squeeze the contents into a food.

On days 0, 45, and 90 of supplementation, 49 developmental items from the Assessment of Basic Language and Learning Skills (ABLLS), a criterion-referenced tool, were used to measure eight primary areas of language and learning: receptive language, requesting, labeling, intraverbals, imitation, play skills, social interaction, and generalization. Ms. Patrick, a certified speech pathologist conducted both the initial and final assessments. Scores from day 0 were not referenced prior to the evaluation on day 90. An adult who knew the child well (parent, teacher, therapist) and who had been trained in scoring assessed the child on day 45 using the same 49 items.

Of the initial 22 children, 18 completed the 90-day trial. All of the children displayed significant increases in their language and learning skills based upon the ABLLS. A *t*-test analysis of the data in the areas of receptive language, requesting, play skills, intraverbals and social interaction resulted in a *p*-value < 0.0001. A *p*-value of <0.001 was obtained in the areas of labeling and generalization. In addition a *p*-value of <0.01 was obtained for vocal imitation. These *p*-values demonstrate that the increase in scores from day 0 to day 90 had high statistical significance. Ms. Patrick noted the importance of fish oil purity and, keeping in mind the hypersensitivity of most children with autism-related disorders, of beginning with the lowest possible dose for this population. "Our significant results were achieved with a relatively small amount of essential fatty acids," she observed.

Dr. Salik is the Medical Director of the Children's Emergency Center at Tucson Medical Center in Arizona. Ms. Patrick has over 10 years' experience providing services for children with autism and Asperger's syndrome. She is available for free consultation regarding EFA supplementation for children with communication difficulties at www.nordicnaturals.com/direct/asklouise.asp.