

# STRONG CHILDREN'S RESEARCH CENTER

## Summer 2012 Research Scholar

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### ABSTRACT

**Title:** *COD OIL: Challenges Obtaining Dietary Omega-3 Intake Levels. Comparison of Intake in Children with Typical Development and Autism.*

**Background:** Omega-3 polyunsaturated fatty acids are essential nutrients that are known to play many important roles in human health and development. However, children with Autism Spectrum Disorders (ASD) tend to have restrictive and repetitive eating behaviors, which may limit their intake of omega-3s from food alone.

**Objective:** The objective of this study was to compare omega-3 consumption in children with ASD to that of their typically developing peers. We conducted a secondary data analysis of dietary data collected in 292 children (ages 2-13 years) and ASD diagnoses per Autism Treatment Network protocol.

**Results:** A three-day mean intake of total omega-3 fatty acid and total DHA/EPA was calculated. The data for combined DHA/EPA intake data from the general pediatric population collected through the 2007-2008 National Health and Nutrition Examination Survey (NHANES). We found no significant difference in DHA/EPA consumption between the two populations. The majority of both groups failed to meet dietary recommendations for DHA/EPA consumption from food alone.

**Conclusion:** While proper use of dietary supplements can help children achieve nutrient recommendations, one third of omega-3 specific supplement users with ASD still fell below the Adequate Intake (AI) for DHA/EPA consumption.