

# DHA

## improves literacy, behaviour & attention in children with ADHD better than EPA

Milte CM et al. J Atten Disord. 2013 Nov 8. & Nutrition 2012 Apr 25. [Epub ahead of print].

**Objective:** To investigate the effects of EPA, DHA or placebo on behaviour, cognition and literacy in children with ADHD, to determine if those with lower omega-3 status respond better and to correlate changes in PUFA status with changes in behaviour and literacy/cognition.

### Study Design:

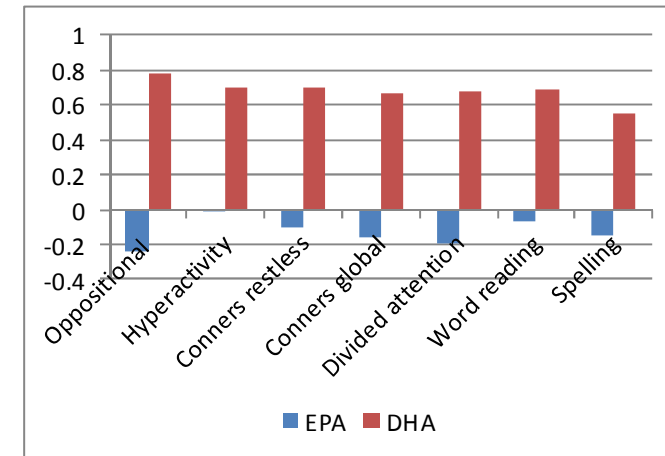
- Randomised, three way cross-over, triple-blind (investigators, children and parents), placebo-controlled trial
- 90 children aged 6-12 years old diagnosed with ADHD or with parent-rated symptoms >90<sup>th</sup> percentile on the Conners Parent Rating Scale (CPRS) and parent reported learning difficulties where literacy performance was behind their level in school
- Given 4 X 500 mg capsules/day of either EPA-rich fish oil (1109 mg EPA & 108 mg DHA), or a DHA-rich fish oil (1032 mg DHA & 264 mg EPA) or placebo for 4 months each for a total of 12 months intervention.

### Assessments:

- **Red blood cell (RBC) fatty acids status**
- Primary Outcomes**
  - **Literacy** using the Wechsler Individual Achievement Test (WIAT-III)
  - **Vocabulary performance** using the Wechsler Intelligence Scale for Children
  - **Parent Rated ADHD Symptoms** using the long version of the CPRS.
- Secondary Outcomes**
  - **Various forms of attention** using the Test of Everyday Attention for Children
  - **Focused attention** using the Sky Search
  - **Sustained attention** using Score ! Tasks
  - **Ability to switch & control attention** using Creature Counting
  - **Divided attention** by Sky Search & Score! Tasks
  - **Inhibition or ability to hold back a response** using a computerized Go/No-go task

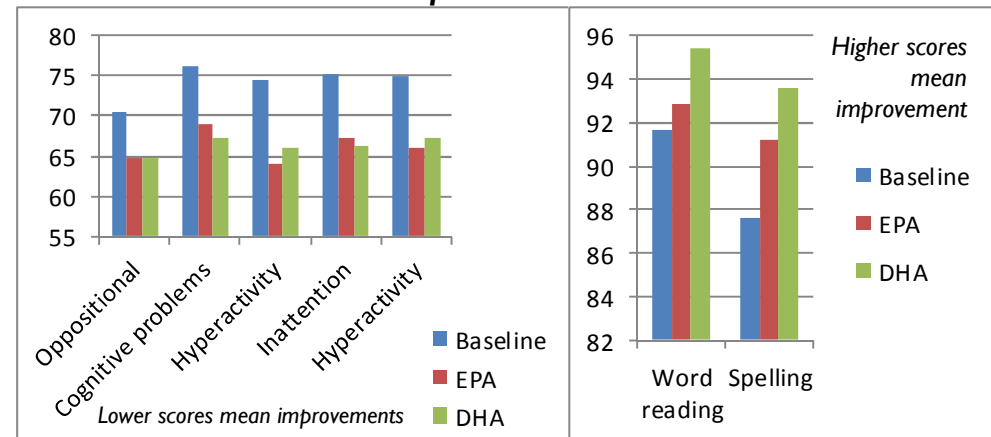
## Summary of Benefits Achieved

Correlations between RBC Fatty Acid Status and Outcomes from Baseline to Month 4 in a subgroup of 17 children



After 4 months treatment, increased RBC DHA was associated with a number of outcome improvements that were more evident in a subgroup of 17 children with learning difficulties. There was no similar association with RBC EPA content and the same outcome measures.

### Behaviour, Cognition and Literacy Scores at Baseline and After Each Treatment at the end of 12 months



### Conclusion:

- Increases in DHA status through supplementation may improve literacy and behaviour in children with ADHD with the greatest benefits in children having comorbid learning difficulties.

For more Information: Call +44 (0) 1372 379 828 or Visit [www.efamol.com](http://www.efamol.com)  
Efamol Ltd., 14 The Mole Business Park, Leatherhead, Surrey, UK, KT22 7BA