

## ACKNOWLEDGEMENTS

This commentary was informed by research funded by the Ministry of Health's Pacific Provider and Workforce Development Fund,<sup>9</sup> in which three of the authors collaborated.

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## Fish oil for concentration in ADHD

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There seems to be a groundswell in the use of fish oil in children with Attention Deficit Hyperactivity Disorder (ADHD) to improve concentration. Are there systematic reviews that support this practice?

**SOME AVAILABLE BRANDS:** Nutra-Life, Good Health, Thompson's, Nature's Own, Healtheries, Nordic Naturals, BioBalance, Ethical Nutrients, Clinicians, MICROgenics, Comvita, BioOrganics, Efamol, SANDERSON, Pro-Life, Deva Nutrition, Solgar.

**ACTIVE CONSTITUENTS:** Omega-3 fish oil (some Omega-3-6-9) with some preparations also containing glucosamine, vitamin D, red yeast rice, coenzyme Q10 and krill.

**MANUFACTURER CLAIMS:** The omega-3 nutrients eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) enhance quality of life and lower the risk of premature death. They have an important role in protecting and optimising nerve cell functioning. Conditions such as ADHD, autism, poor coordination, fatigue, dyslexia, and aggression all improve with omega-3 supplementation, as do a range of affective disorders, including depression and bipolar disorder. Cognitive function improves with sharper memory, clearer thinking and mental agility. In early stage Alzheimer's disease, omega-3 can slow down the rate

of decline, and supplementation may protect against onset of the condition. Optimal skin health, blood circulation and heart function, immune response and allergies are other indications for omega-3 fish oils.

**EVIDENCE FOR EFFICACY:** A search for fish oil and ADHD appears in two citations in the Cochrane Register of Controlled Trials (Central). One is in the adult population and includes olive and flax oil. The focus of this study is on raising levels of fish oil in the body, based on an assumption that fish oil is positively correlated with neuropsychiatric health. The second is a placebo-controlled double-blind trial in children with ADHD (N=40). This study is interesting in that the intake was through foods rich in fish oil, rather than a prescribed dose/number of capsules. Attention deficit, hyperactivity and impulsivity; aggression; visual perception; development of visual-motor integration; impatience did not significantly differ between groups. The authors conclude that intake of fish oil-rich foods did not improve ADHD-related symptoms. Although treatment of ADHD with fatty acids deserves further investigation, careful attention should be paid to which fatty acid(s) is used.

There are no Cochrane Reviews on this topic. However, a systematic review published in 2011 by Bloch and Qawasmi

Herbal medicines are a popular health care choice, but few have been tested to contemporary standards. **POTION OR POISON?** summarises the evidence for the potential benefits and possible harms of well-known herbal medicines.

### Summary Message

The literature is sparse with regard to the use of fish oil for improved concentration in ADHD. Some studies are further complicated by the use of a combination of fatty acids. One systematic review of 10 trials suggests a modest benefit in ADHD relative to other pharmacological agents. Given the benign safety profile, supplementation with standard pharmacotherapies may be a reasonable suggestion for some families. The caveat here is that more studies are required to make a recommendation for universal administration to all children with ADHD.

included 10 trials involving 699 children, in the meta-analysis. Omega-3 fatty acid supplementation demonstrated a small but significant effect in improving ADHD symptoms. The authors concluded that omega-3 fatty acid supplementation, particularly with higher doses of EPA, was modestly effective in the treatment of ADHD. The relative efficacy of omega-3 fatty acid supplementation was modest compared with currently available pharmacotherapies for ADHD, such as psychostimulants, atomoxetine, or  $\alpha_2$  agonists. However, given its relatively benign side-effect profile and evidence of modest efficacy, it may be reasonable to use omega-3 supplementation to augment traditional pharmacologic interventions or for families who decline other psychopharmacologic options.

#### CONTRAINDICATIONS, PRECAUTIONS,

**ADVERSE EFFECTS:** Limited information is available. Product information suggests that omega-3 fish oils are safe and non-toxic when taken as directed.

**DRUG INTERACTIONS:** Limited information is available.

#### Key references

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J PRIM HEALTH CARE  
2013;5(4):337–338.

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