Is There a Role for Nutritional Therapy in Treatment of Attention Deficit Hyperactivity Disorder & Dyslexia?

Whenever parents come to us and ask about the role of nutrition in treatment of attention deficit/hyperactivity disorder (ADHD) and dyslexia, we usually end up discussing several specific nutrients—especially **docosahexaenoic acid** (**DHA**) and **2-dimethylaminoethanol** (**DMAE**), both of which are especially prevalent in oily fish such as salmon and sardines.

EFAs—Desperately Needed by Young Boys

Quite apart from a basic multiple vitamin and mineral formula that provides 100 percent of the recommended daily amounts for basic vitamins and minerals, deficiencies of essential fatty acids (EFAs), which are vital to cognitive function, have been strongly implicated in learning and behavioral disorders and difficulties.

It is especially important to note that male animals require three times as much EFA as do females in order to achieve normal neonatal and infant development; this is consistent with the finding that hyperactivity is far more common among boys than among girls.

Because your body does not make them, they are only available through the diet or supplementation. A full 60 percent of the brain is composed of fats, especially EFAs. Studies show that children with ADHD have lower levels of EFAs than do children without the condition. Studies also show that lower levels of EFAs can result in problems with learning, behavior, temper, sleep, and immune function.

Though we cannot say for sure that these problems will always be improved with supplementation, we believe that such strategies can be beneficial while any potential risks are nonexistent.*

As an example, take the following study on docosahexaenoic acid and dyslexic children.

DHA May Help Dyslexic Children

Dyslexia is a fairly common condition that involves difficulties in learning to read and write, mirror reversals of letters and words, and poor short-term memory. Dyslexia is closely related to dyspraxia (problems with coordination and muscle control) and attention-deficit hyperactivity disorder, say experts. There was a three-fold increase in the prevalence of learning disorders in the United States over the period 1976 to 1993, and 80 percent of the new cases involved dyslexia.

Dr. Jacqueline Stordy of the University of Surrey believes that dyslexia, dyspraxia, and attention deficit hyperactivity disorder have one common denominator—a deficiency of long-chain fatty acids. She points to a study that found improved dark adaptation (a problem among dyslexics) after supplementation with 480 milligrams per day of DHA for a month. Another study involving 15 dyspractic children found that supplementation with a proprietary mixture of essential fatty acids for four months markedly improved their motor skills.

DMAE: Treatment of Choice Before Ritalin

For ADHD cases, the addition of 2-dimethylaminoethanol (DMAE) to the child's diet may also offer benefits.

In fact, DMAE (known as deaner) was used prior to methylphenidate (Ritalin) for ADHD children; its uses were curtailed with the emergence of the financially lucrative Ritalin. But DMAE has an outstanding safety record combined with good clinical evidence.

In one study, 74 children referred for problems with learning, including many with hyperactivity, were screened for neurological or psychiatric illness, then given DMAE, Ritalin or placebo in a double-blind study that lasted three months. Children receiving DMAE and Ritalin both "showed significant improvement on a number of tests; the pattern and degree of change differed slightly for the two," note researchers, adding, that DMAE "thus appeared to improve performance in children with learning and behavior disorders." ❖

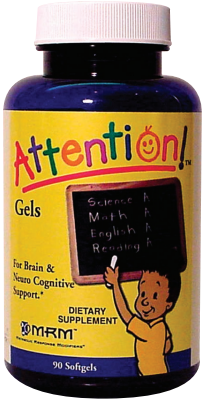
REFERENCES

Lewis, J.A. & Young, R. "Deanol and methylphenidate in minimal brain dysfunction." *Clin Pharmacol Ther*, 1975;17(5):534-540.

Mitchell, E.A., et al. "Clinical characteristics and serum essential fatty acid levels in hyperactive children." *Clinical Pediatrics*, 1987;26:406-411.

Stordy, J.B. "Dark adaptation, motor skills, docosahexaenoic acid, and dyslexia." *American Journal of Clinical Nutrition*; 2000;71 (suppl):323S-326S.

*In fact, the combination of ingredients in **Attention!™ Gels**, one of our recommended children's formulas, provides many additional health benefits in the area of protection against environmental pollutants, reduced cancer risk, and improved blood sugar control.



The Doctors' Prescription

Attention!™ Gels (from MRM, also known as Metabolic Response Modifiers) is gaining a great deal of popularity among parents seeking natural pathways for helping their children to overcome behavioral and learning difficulties. In some areas of the country, it is the number one selling supplement for such children.

We recommend **Attention!™ Gels** because of MRM's reputation for producing quality products and in this case because the formula addresses behavioral and learning difficulties in a comprehensive manner. It provides the key essential fatty acid DHA as well as DMAE, **phosphatidylserine** and additional supporting nutrients. Together, these address causes thought to underlie ADHD and dyslexia: neurochemical imbalances, nutritional deficiencies, poor diet, food allergies, hypoglycemia and environmental pollutants.

Dosage—Take one to three easy-to-swallow softgels per day.

Availability—**Attention!™ Gels** from MRM are available nationwide at natural health centers and from health professionals. Contact MRM directly to find a store near you. The toll-free number is (800) 948-6296.