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## Using Diet to Treat Developmental Coordination Disorder

Reading, spelling, and ADHD scores significantly improved in children taking fatty-acid supplements.

Children with developmental coordination disorder (DCD) have normal IQs but score lower than the 15th percentile on tests of motor coordination; many also have attention deficit hyperactivity disorder. Results of some small studies suggest that supplementation with fatty acids may benefit these children. In a randomized, controlled trial, 117 children with DCD (age range, 6–12; 66.7% male; 31% meeting ADHD criteria) received dietary supplementation or placebo for 3 months. The active treatment — capsules containing 80% fish oil and 20% primrose oil — provided daily doses of omega-3 fatty acids (558 mg of eicosapentaenoic acid and 174 mg of docosahexaenoic acid) and omega-6 fatty acids (60 mg of gamma-linoleic acid and 9.6 mg of alpha-tocopherol). Placebo capsules containing olive oil mimicked the taste and appearance of the active treatment.

Only seven children did not complete the study at 3 months, and compliance was high (88.7%). At 3 months, motor skills improved similarly in the two groups. However, reading and spelling skills and **ADHD** scores improved significantly in the active group compared with the placebo group. At 3 months, placebo recipients were switched to active treatment and showed similar changes 3 months later. Active-treatment subjects continued treatment for another 3 months and maintained their gains. One hundred children completed the 6-month study, with an 85.5% compliance rate.

**Comment:** These authors used 3-month intervals and avoided a two-way crossover design, because of slow turnover of fatty acids in neuronal membranes. Tolerability was excellent, as evidenced by the high compliance rates, and treatment effects were maintained. The potential of this therapy is far-reaching, and these findings warrant independent replication.

— Barbara Geller, MD

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