

# Preventing and Treating ADHD in Children

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Attention Deficit Hyperactivity Disorder (**ADHD**) is the most common neurobehavioral disorder diagnosed in children, and its prevalence is growing. Between 2003 and 2007, there was a 22% increase in ADHD prevalence in the United States - today, about 9.5% of school-age children have ADHD.<sup>1</sup>

ADHD is characterized by restlessness, difficulty focusing, poor impulse control, distractibility, and in some cases overactivity; plus these symptoms have significant negative consequences on the child's academic performance, social skills, and relationships with family members, teachers, and peers. In addition, ADHD is often accompanied by learning disorders, discipline problems, anxiety, and/or depression.<sup>2</sup>



ADHD is a complex disorder of the brain, believed to be caused by a combination of genetic and environmental factors.<sup>3,4</sup> Smoking and alcohol use during **pregnancy**, **micronutrient** deficiencies, excessive television watching early in life, and inadequate **omega-3 fatty acid** intake are a few of the environmental factors that increase risk.<sup>3,5</sup>

## Nutrition and ADHD

Poor nutrition is a significant concern for attentional problems and ADHD – here are some of the dietary factors that have been linked to ADHD risk in scientific studies:

- **High sugar intake** is also associated with hyperactive behavior and ADHD.<sup>6,7</sup>
- **Inadequate micronutrient intake.** Supplementation to correct micronutrient deficiencies has been shown to improve ADHD symptoms.<sup>2,8</sup>
- A **low-nutrient diet** high in processed foods and soft drinks at age 4 ½ has been associated with hyperactivity in children at age 7.<sup>9</sup> Similarly, a “Western” dietary pattern has also been associated with ADHD in 14-year-olds.<sup>10</sup>
- **Food additives and dyes:** many colored foods are marketed to children, and hyperactivity in children following ingestion of food dyes is well documented in placebo-controlled studies.<sup>6,11</sup> Furthermore, a 2004 meta-analysis of 16 studies in children who were already hyperactive showed that their hyperactive behavior increased after ingesting food colorings.<sup>12</sup> *Read more.*
- There is preliminary evidence that certain **pesticides** (called organophosphates) commonly found on some fruits are associated with ADHD.<sup>13</sup> *Read more.*

- **Omega-3 fatty acids** (especially DHA) are the building blocks a child needs to build a healthy brain. **Insufficient omega-3 levels** are common in children with ADHD, and there is evidence that omega-3 supplementation, especially in combination with the omega-6 fatty acid gamma-linolenic acid (GLA; found in **borage oil** and evening primrose oil) improves behavior and ADHD symptoms.<sup>14,15</sup>

## Treatment for most children with ADHD: stimulant drugs

The primary mode of treatment for ADHD is a combination of stimulant drugs and behavioral treatment. The Centers for Disease Control estimates that 2.7 million children in the U.S. are currently taking medication for ADHD.<sup>1</sup> There is concern about these drugs because of side effects (the two most common are insomnia and loss of appetite) and the potential for abuse, since stimulants such as Ritalin (methylphenidate) and amphetamines have actions on the brain similar to cocaine.<sup>6</sup> Also evidence has recently emerged that these stimulants may adversely affect the cardiovascular system – long-term stimulant use increases heart rate, and elevated heart rate increases the risk of cardiac death.<sup>9,16,17</sup>

## Natural Prevention and Treatment of ADHD

As a parent, these are effective strategies that will help to **prevent your children from developing ADHD:**

- Limit television time and do not expose children under the age of 2 to any television. The American Academy of Pediatrics recommends that children under the age of two should not watch television.<sup>5</sup>
- Feed the whole family a health-promoting, **high-nutrient diet** of colorful fruits and vegetables, beans, nuts, and seeds.
- Avoid processed foods, artificially colored foods, and added sugars. The simplest and most effective way to avoid the potential harmful effects of synthetic dyes is to avoid processed foods. When buying the occasional packaged food, check the ingredient list to avoid synthetic dyes and additives.
- To assure adequate omega-3 fatty acids for brain development, give children supplemental **DHA and EPA** and feed them omega-3-rich foods (ground flaxseed, hemp and chia seeds, walnuts) regularly.
- Buy organic produce when possible to limit pesticide exposure, especially when buying **highly pesticide-laden crops**.

**If your child has been diagnosed with ADHD**, a family commitment to dietary changes is crucial. My nutritional approach to ADHD used in conjunction with appropriate behavioral treatment has helped numerous families. Although it may take up to 6 months, significant improvements are almost always observed, and stimulant medications are rarely necessary.

- Feed the whole family a health-promoting, **high-nutrient diet** of colorful fruits and vegetables, beans, nuts, and seeds.
- For adequate omega-3 fatty acids:
  - 1 tbsp. ground flax, chia, or hemp seeds daily
  - Minimum 1 ounce raw walnuts daily, plus other raw nuts
  - Little or no oils
  - Supplemental omega-3s:
    - 4-9 years old: 0.75 ml **DHA+EPA Purity** daily, 3 softgels **New Harvest Vegetarian EPA** weekly
    - Over 10 years old: 0.75 ml **DHA+EPA Purity** daily, 1 softgel **New Harvest Vegetarian EPA** daily
- Supplemental GLA (an omega-6 fatty acid found in **borage oil** and evening primrose oil)
  - 2 softgels **Borage CP-240** weekly
- Gluten (from wheat) and/or casein (from dairy products) avoidance for children who are sensitive to these proteins.