

## ADHD and Nutrition

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Our biological system is built to deal with an average amount of invasions on our bodies, not what we have now days. This topic could be a whole 20 page paper, or dissertation topic on its own by looking at magnetic, electrical, and chemical disruption of our bodies through all the electronics, power lines, plastics, preservatives, and additives- not to mention the air we breathe. Eventually our bodies start getting overloaded. However, I will strictly look at the studies focused on ADHD.

The root cause of ADHD has yet to be completely determine, however some ideas include a combination of genetics, prenatal/perinatal occurrences, environmental influences, neurobiological and psychosocial influences (Cruz & Bahna, 2006). Cruz and Bahna (2006) cited a research done by Feingold that determined a genetic disposition to hyperactivity that can be set off by certain foods. This study recommended staying away from artificial flavors and colors, along with salicylates. Cruz and Bahna cited a few other studies which looked at food and hyperactivity; some indicated that parents and teachers observed a difference, despite the fact that there were no neuropsychological changes. This review of the literature indicates that there is not a clear conclusion concerning food influence on hyperactivity.

NIMH (2012) stated the idea that sugar worsens and contributes to the symptoms of hyperactivity is not completely accurate. It discussed two studies by the same researcher which compared sugar and sugar substitute on the child's behavior and found no significant differences. However, what I found interesting is that the sugar substitute was typically artificial sweetener such as aspartame. Aspartame is the chemical phenylalanine in which those with ADHD cannot metabolize properly. Some research indicates that aspartame is safe while others still question its safety. Yet there is still no indication of aspartame or sugar contributing to ADHD (Rojas & Chan, 2005).

Phenylketonuria is a genetic disorder in which there is abnormal metabolism of phenylalanine to tyrosine; tyrosine is a precursor to dopamine (Posner, Gorman, & Nagel, 2009). With abnormal dopaminergic pathways, and inability to metabolize phenylalanine, this subgroup of ADHD would benefit from foods rich in tyrosine or supplements (Posner, Gorman, & Nagel, 2009). Sikstrom & Soderlund (2007) did an extensive literature review of dopamine and ADHD. They found that the dopamine system within a person with ADHD creates situations increasing their sensitivity to environmental stimulus and changes in noise. It was recommended that a steady amount of noise instead of fluctuation or lack of noise be used for their concentration.

Since there is no real psychological or biological test for ADHD, and its source could originate from various different issues, it is important to determine any underlying influences that exacerbate the symptoms. Food allergies are a place to start eliminating issues, along with determining any metabolic disorders. Rojas and Chan (2005) addressed some of the alternative methods suggested by Weil (2011), stating that there are no conclusive results for the benefits of any treatments outside of stimulants and behavior therapies. Similar to Rojas and Chan, I found contradictory conclusion concerning ADHD treatment, however, if parents prefer to avoid harsh stimulant drugs, then these alternative treatments are worth trying. If they help, great, if not nothing was lost trying. Another source would be the ADHD Information Library (2008), which provides advice about an eating program for children with ADHD.

### References

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