PEDIATRICS

An Overview: Attention Deficit Hyperactivity Disorder

By James Goetz, CSCS

Attention deficit hyperactivity disorder (ADHD) generally is defined as a neurological developmental psychiatric disorder behavior exhibited by an individual who has trouble with attention and/or hyperactivity and hyperimpulsivity for his or her linear age. [1]

ADHD has been a recognized disorder since the eighteenth century. In 1798, Sir Alexander Crichton wrote a book titled *An Inquiry into the Nature and Origin of Mental Derangement*, which described a human state of "mental restlessness." [2] However, in 1902, many contemporary authors considered Sir George Frederick Still's *The Goulstonian Lectures* to be the beginning of ADHD as a scientific phenomenon. [3]

The diagnosis of ADHD has not been without controversy. Professionals ranging from teachers to politicians and clinicians are unable to agree on what ADHD actually is. Some believe ADHD is a genetic abnormality, while others believe it is merely an abnormal behavior based upon one's socioeconomic upbringing. [4] Many now believe that ADHD occurs more in industrialized countries than unindustrialized. This may be due to the high use of processed foods and the use of genetically modified organisms (GMOs) in food. "Diets to reduce symptoms associated with ADHD include sugar-restricted, additive/preservative-free, oligoantigenic elimination, and fatty acid supplements." [5]

Another theory is presented in *Psychology Today* by Marilyn Wedge, PhD. She compares the rate of ADHD in the children in France (0.5%) to those in the US (9%). [6] One of her theories is that, in general, French parents are better at setting and enforcing guidelines, rules, and limits. Without the necessary parameters and restrictions, rules, and limits, children are unable to develop proper understanding of what is appropriate and what is inappropriate to ensure a healthy lifestyle.

Vaccinations have long been blamed for many unhealthy mental and physically debilitating conditions, such as cerebral edema. One of those unhealthy conditions is ADHD. Blame should not be placed on the vaccinations, but on the ingredients in vaccinations. The ingredient now being used as a replacement for thimerosal (mercury) is aluminum. From a biochemical standpoint, aluminum is a competitive inhibitor of elements such as zinc, magnesium, calcium, and iron. There has been a correlation in deficiencies of zinc, iron, magnesium, and iodine with having symptoms of ADHD. [6,7] Neonatal infants retain 75% of aluminum once introduced into their systems. [8] In theory, the ingredients used in vaccines can



be a factor in ADHD by removing the minerals necessary for proper neurological development.

Diagnosis is based on symptoms lasting for six months or greater. [9] The degree of the severity of the symptoms must be greater than others at that same age. The diagnosis is made as a result of an assessment of a person's childhood behavioral and mental development. Medical and pharmaceutical factors, which may be an explanation of symptoms, must be ruled out first. However, in order to rule out these factors, parents, teachers, and peers must give input and feedback on the individual. [10]

These often biased factors create a very open and vague setting, inhibiting proper and accurate diagnosis. A parent or teacher will raise a concern over a child being overly hyperactive without taking into account that the individual is exhibiting normal childlike behavior. Children often have great amounts of energy and can be stimulated with new ideas or material objects. To certain individuals, this can be viewed as abnormal, when in fact, it is deemed to be normal. This technique of forming a diagnosis is viewed as extreme.

Other forms of diagnosis are to determine if the individual responds to medication, or are based on the results of imaging studies. Neither of these techniques is sensitive, nor specific, and should be used only for research purposes. [11]

Symptoms of ADHD are difficult to define. Some symptoms range from difficulties in learning to lack of interpersonal rela-

PEDIATRICS

tionships. It is difficult to realize where normal levels of inattention (boredom), hyperactivity, and being impetuous begin. [12]

Based on symptoms, diagnosed individuals may be divided into the following subtypes: predominantly inattentive, predominantly hyperactive- impulsive, or a combination. [13] Regardless of subtype classification, treatments are the same for each.

Pharmaceutical treatments most often used for the treatment of ADHD are stimulant based. [14] However, there is a lack of evidence on the results of academic performance and social behaviors with using pharmaceuticals. [15]

Unfortunately, a study published in the *Journal of the American Academy of Child and Adolescent Psychiatry* that included an eight-year follow-up with children diagnosed with ADHD showed that those children had difficulties in their adolescence regardless of treatment versus a placebo. [16]

More natural methods of treatment are chelation therapy, supplementation of zinc, magnesium, iodine, omega-3 fatty acids, and melatonin (for those on stimulant medications). [17] The introduction of these substances combined with a low sugar, complex carbohydrate, good protein sourced, healthy-fat diet The introduction of these substances combined with a low sugar, complex carbohydrate, good protein sourced, healthy-fat diet rich in green leafy vegetables can have significant results in the reduction of symptoms.

rich in green leafy vegetables can have significant results in the reduction of symptoms.

From the available research studies and evidence presented, it appears that ADHD is extremely overly misdiagnosed. There is not much evidence to substantiate a cookie-cutter diagnosis or introduce a highly specific treatment. However, with few exceptions, studies have shown that the rate of ADHD in the United States is no higher than compared to the rest of the industrial countries in the world. [18] Based upon the research studies referenced herein, further research is needed to better



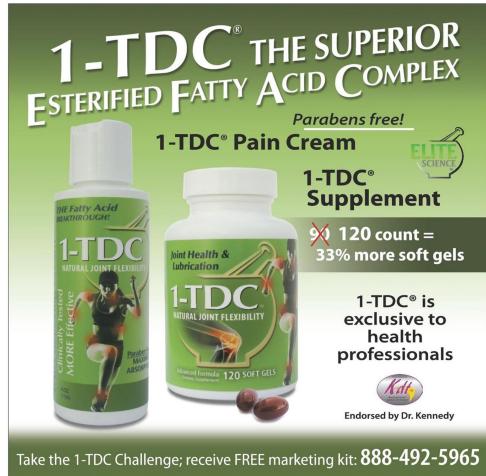
To learn more, circle # 367 on The Action Card

PEDIATRIC

understand this condition and its inherent causes in order to eliminate or lower the risks of this condition occurring.

References

- Childress, AC, Berry, SA (2012 Feb 12). "Pharmacotherapy 1. of attention-deficit hyperactivity disorder in adolescents.". Drugs 72 (3): 309-25
- Palmer ED, Finger S (May 2001). "An early description of 2. ADHD (inattentive subtype): Dr. Alexander Crichton and 'Mental restlessness' (1798)". Child and Adolescent Mental Health 6 (2): 66-73.
- Klaus W. Lange, Susanne Reichl, Katharina M. Lange, Lara 3. Tucha, Oliver Tucha. "The history of attention deficit hyperactivity disorder". Attention Deficit Hyperactivity Disorder. 2010 December; 2(4): 241-255. Published online 2010 November 30.
- Faraone, Stephen V (2005). "The scientific foundation for 4. understanding attention-deficit/hyperactivity disorder as a valid psychiatric disorder". Eur Child Adolesc Psychiatry 14 (1): 1-10
- Millichap Gordon J, et al. The diet factor in attention-deficit/ 5. hyperactivity disorder. 2012 February Pediatrics Vol. 129 No. 2
- Diagnostic and statistical manual of mental disorders: DSM-6 IV. Washington, DC: American Psychiatric Association. 2000.
- National Institute for Health and Clinical Excellence (24 Sep-7.



To learn more, circle # 366 on The Action Card

tember 2008). "CG72 Attention deficit hyperactivity disorder (ADHD): full guideline"

- 8. Mercola, D. 2010. 0. < http://articles.mercola.com/sites/articles/ archive/2010/11/03/hepatitis-b-vaccines-at-birth.asp&xgt;.
- 9. Lake, Mina K. Dulcan, MaryBeth (2011). Concise guide to child and adolescent psychiatry (4th ed. ed.). Washington, DC: American Psychiatric Pub. p. 34.
- 10. Ramsay, J. Russell (2007). Cognitive behavioral therapy for adult ADHD. Routledge. p. 25.
- 11. Wigal SB (2009). "Efficacy and safety limitations of attentiondeficit hyperactivity disorder pharmacotherapy in children and adults". CNS Drugs. 23 Suppl 1: 21-31.
- 12. McDonagh MS, Peterson K, Thakurta S, Low A (December 2011). Drug Class Review: Pharmacologic Treatments for Attention Deficit Hyperactivity Disorder. United States Library of Medicine
- 13. Millichap JG, Yee MM (February 2012). "The diet factor in attention-deficit/hyperactivity disorder". Pediatrics 129 (2): 330-7
- 14. Konikowska K, Regulska-Ilow B, Rózańska D (2012). "The influence of components of diet on the symptoms of ADHD in children". Rocz Panstw Zakl Hig 63 (2): 127-34.
- 15. Bloch MH, Qawasmi A (October 2011). "Omega-3 fatty acid supplementation for the treatment of children with attentiondeficit/hyperactivity disorder symptomatology: systematic

review and meta-analysis". J Am Acad Child Adolesc Psychiatry 50 (10): 991-1000.

16. Molina BS, Hinshaw SP, Swanson JM, et al. (May 2009). "The MTA at 8 years: prospective follow-up of children treated for combined-type ADHD in a multisite study". Journal of the American Academy of Child and Adolescent Psychiatry 48 (5): 484-500. 17. WebMD, . n. page. < http://www. webmd.com/add-adhd/guide/vitamins-supplements-adhd>.

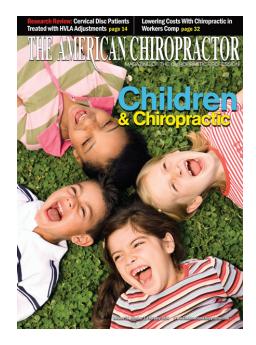
18. Faraone Stephen, Sergeant Joseph, et al. (June 2003). "The Worldwide Prevalence of ADHD: Is it an American Condition?". World Psychiatry 2(2): 104-113.



James Goetz has been a certified strength and conditioning specialist with the NSCA, working with professional and collegiate athletes for more than ten years. He has since changed focus and is in his final year as a full-time chiropractic student with an interest in pursuing pediatric care. He currently resides in New Jersey with is wife of eight years and their two children.

An Overview: Attention Deficit Hyperactivity Disorder

AMERICAN CHIROPRACTOR | FEBRUARY 2014



Reprinted from the American Chiropractor Archive http://archive.theamericanchiropractor.com/article/20140201026/print



©2018 - American Chiropractor Archive. All Rights Reserved.