

Attention Deficit Hyperactivity Disorder: All that is Hyper is not Hyperactivity

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Impulsivity, hyperactivity, difficulties with sustained attention and concentration, and problems controlling behavior, when inappropriate to a child's chronologic age, are the core symptoms of ADHD. Children with ADHD demonstrate these difficulties in various situations, not just at school, but in the home environment, when interacting with families and with peers. I am often confronted with individuals who argue that they do not believe in ADHD, as though it were a religion, as opposed to a neurobiological disorder characterized by an under arousal of the central nervous system predominantly in the area of the frontal lobes that is evident on positron emission tomography (PET) scans of the brain. Since neurobiologically these are children who are under aroused, they persistently compensate for their sluggish nervous systems, with fidgetiness, restlessness and excessive motoric hyperactivity. Researchers have shown that individuals with ADHD evidence a decrease in glucose metabolism in the frontal area of the brain, evidence increased slow wave brain activity, as well as lower blood flow in the frontal area of the brain, that part of the brain that is involved in inhibiting behavior, motor control, judgment and reasoning. Hence, the pharmacological treatment of choice that permits children as well as adults to improve their attention, decrease their impulsivity, and better manage their behavior are the various stimulant medications.

ADHD occurs fairly frequently, between 3 to 6 percent of children. In some affluent school districts however, over ten percent of the children are being administered medications to improve attention. ADHD is often over diagnosed as well as under diagnosed. Often, practitioners will rely solely on parent and teacher forms rating children's behavior. While these reports may be helpful, they merely tell us that ADHD symptoms might be present, but tell us nothing about what the underlying causes are. Rating scales alone are not sufficient to make a diagnosis of ADHD and will lead to many children being diagnosed that do not have this neurobiological disorder.

One of the most important things that parents and other adults might do prior to jumping on the ADHD bandwagon is to make certain that their child actually has ADHD and not one of the many things that can mimic ADHD behaviors. This requires a thorough and comprehensive evaluation. ADHD seldom occurs alone. Approximately 40 to 60 percent of children with ADHD will have specific learning disabilities. If a child only has difficulty paying attention in Algebra but not in other academic areas this would be inconsistent with ADHD and more indicative of a learning disorder. Many children will experience specific auditory processing difficulties. Central auditory processing abilities refer to "what one does with what one hears." A child may have great hearing acuity but confuse thief and feast, or elephant and alphabet. In an academic situation, the child with auditory processing difficulties will be perceived by teachers and others as being inattentive, when in fact, they are not correctly processing auditory information. Children who are anxious also have difficulty with sustained attention in the classroom. There is a pronounced increase in anxiety disorders in children since in addition to genetic

factors, anxiety is the result of exposure to trauma. Given advances in technology, children are exposed to traumatic events regularly and repeatedly in our society. Children who are depressed, children who are anxious, children who exhibit oppositional behavior, children with learning disabilities, children responding to a chaotic disorganized family situation or other situational stresses may all have difficulty paying attention but they do not all have a neurobiological disorder we call ADHD. One of the most important things parents can do for their children is to obtain a good diagnosis in order to obtain good treatment. Merely asking parents whether their children move around too much, can't pay attention in school, or misbehave does not constitute the basis for a diagnosis and medication.

ADHD is not something that is typically outgrown. Approximately 30 percent of children will show diminished symptoms as they get older. ADHD adults will make more frequent moves, experience more tumultuous relationships, are involved in more automobile accidents, change jobs more frequently, and are more prone to problems with substance abuse and alcoholism. Early diagnosis and treatment can certainly help provide resilience and prevent these things from occurring. Adults with ADHD are also energetic, great multi taskers and they have been shown in some studies to earn significantly more money in young adulthood than individuals without ADHD. Close supervision as children, improving adherence to rules and regulations, and decreasing any aggressive behaviors have all been shown to improve the resiliency of these children and improve adult outcomes.