



WHAT PARENTS AND TEACHERS SHOULD KNOW ABOUT ADHD

Attention-deficit hyperactivity disorder (ADHD) is defined as a pattern of behaviors in which a child shows levels of inattention, impulsivity, or hyperactivity that are higher than other children the same age. These problems usually start before age 7. ADHD is the most common mental health problem of childhood, affecting 5% to 9% of children and 4% of adults. It is more common in boys than in girls. The behavior of children with ADHD often results in serious disturbances in their relationships with parents, teachers, peers, and siblings, as well as academic problems. The symptoms and criteria for a diagnosis of ADHD from the Diagnostic and Statistical Manual of The American Psychiatric Association are described below.

Symptoms of Inattention:

- fails to give close attention to details or makes careless mistakes
- has difficulty sustaining attention in tasks or play activities
- does not seem to listen when spoken to directly
- does not follow through on instructions and fails to finish tasks (not due to oppositional behavior or failure to understand instructions)
- has difficulties organizing tasks and activities
- avoids or dislikes tasks that require sustained mental effort (such as schoolwork or homework)
- loses things necessary for tasks or activities (e.g., toys, books)
- is easily distracted
- is forgetful in daily activities

Symptoms of Hyperactivity:

- fidgets with hands or feet or squirms in seat
- leaves seat in classroom or in other situations in which remaining seated is expected
- runs or climbs excessively when it is inappropriate (in adolescents, may be feelings of restlessness)
- has difficulty playing or engaging in leisure activities quietly
- is always "on the go" or acts as if "driven by a motor"
- often talks excessively

Symptoms of Impulsivity:

- blurts out answers before questions have been completed
- has difficulty awaiting turn
- interrupts or intrudes on others (e.g., butts into conversations or games)

To receive a diagnosis of ADHD, a person must:

- Have six or more symptoms of either inattention or a combination of hyperactivity and impulsivity
- Symptoms of inattention, hyperactivity, and impulsivity must have lasted for at least six months, must be present to a greater degree than other same-age children, and must cause impairment (that is, problems at home or school).
- At least some of the symptoms must have been present before the age of seven
- Symptoms must be present and cause impairment in two different settings (e.g., home, school)

There are three different subtypes of ADHD:

Combined Type: six symptoms present from each of the lists (left and right) above

Predominantly Inattentive: six symptoms present that are listed above on the left

Predominantly Hyperactive-Impulsive: six symptoms present that are listed above on the right

Children do not have to have all of these symptoms, nor do they have to show the same symptoms in all settings for a diagnosis to be made. For example, most children with ADHD can pay attention in situations in which they are very interested (e.g., a favorite television show), or in a one-to-one setting such as a testing session with a psychologist. Since all children show some of these behaviors some of the time, it is important that the behaviors be present to an extreme degree compared to other children of the same age and that they be causing significant disruption to the child's daily life before the child is diagnosed with ADHD. Diagnosis is a complex process that cannot be based on a single visit to the doctor. Instead, information must be gathered from parents and teachers, and from observations of the child in natural settings. When information from parents and teachers conflicts, more weight is usually given to teachers because they are usually more familiar with normal behavior for an age group.

Children with ADHD often exhibit other problems including defiant and noncompliant behavior toward adults, verbal and physical aggression towards peers and siblings, problems with self-esteem (particularly in adolescents), intrusive and inappropriate behavior towards peers, and learning disabilities. Also, family problems often accompany ADHD, including marital problems, alcohol problems (especially in fathers) and stress and depression (especially in mothers). These other problems need to be assessed and treated along with ADHD.

The following additional facts about ADHD are important for parents and teachers to know:

- There is no blood test, computer test, or imaging test (like an MRI) that can reliably diagnose ADHD. To make a diagnosis, information regarding the behaviors listed above must be gathered from parents and teachers. Standardized rating scales and interviews should be used.
- Diagnosis is not as important as a good assessment of the problems that a child is having in daily life functioning and what can be done to improve the problems.
- The exact cause of ADHD is unknown although we do know that there are several important differences in the brains of children who have ADHD vs. those who do not. It is a highly genetic disorder (runs in families) with 20-35% of children with ADHD having a parent with the disorder. Diet does not cause ADHD. Neither artificial substances in foods nor sugar cause ADHD, although artificial dyes and preservatives may cause a slight increase in hyperactivity for any child (with or without ADHD). Environmental factors (such as the structure of the classroom or parenting styles) do not cause ADHD, but they do influence the disorder.
- Although the symptoms above typically decrease as children grow up, just as they do in children without ADHD, children do not outgrow ADHD. More than two-thirds of children with ADHD continue to display serious problems in adolescence and adulthood, and often their problems worsen. ADHD adolescents are at increased risk for school failure and dropout, possible substance or alcohol abuse, and delinquency. ADHD adults often have difficulties in job performance, coping with stress, relationships with other people, substance and alcohol abuse, and criminal behavior. Parents should be wary of advice to wait and see if their child outgrows the problem.
- Effective evaluation and treatment of ADHD involves the cooperation of the child's parents, physician, school personnel, and mental health professionals such as psychologists and psychiatrists.
- Appropriate, early, intensive, and long-term treatment is needed to deal effectively with ADHD. ADHD is a chronic problem and it needs chronic treatment that changes form over time and in different settings but does not stop.
- Many treatments, although widely used, are not effective with ADHD. Traditional, one-to-one therapy, play therapy, or cognitive therapy done in a therapist's office does not work for children with ADHD although the latter may help adults with the disorder. Neither chiropractics, biofeedback (neural therapy), allergy treatments, diets or dietary supplements, computer games designed to improve attention or impulse control, perceptual or motor training, sensory integration training, nor treatments for balance have been proven to be effective for children with ADHD. In addition, there is no evidence that certain classroom accommodations, such as giving children with ADHD extra time on tests or moving a child with ADHD away from other children, are effective.
- In contrast to these approaches, comprehensive treatment, implemented at home, school, and with peers, is effective. Behavior therapy/modification, in which parents and teachers are taught how to work with their children, is the most widely recommended and effective, nonmedical, short-term treatment for ADHD. Behavior modification includes:
 - establishing specific daily goals for the child
 - establishing and consistently enforcing clear rules
 - giving clear and appropriate commands
 - praising children for desired behaviors and ignoring negative behaviors that can be ignored
 - using rewards (for example, privileges or special activities) to encourage good behaviors
 - using appropriate, nonphysical punishments (for example, time out) to discourage bad behaviors
 - using a Daily Report Card to motivate the child and facilitate communication between school and home

It usually takes 8 to 12 clinical sessions for parents to learn these techniques. Teachers often complete inservice training or individual consultations with practitioners to learn these techniques. Treatment for peer difficulties involves working directly with the child, must be conducted in a natural setting such as a school or summer camp/summer treatment program, and requires intensive and long-term involvement.

- Medication with a psycho-stimulant drug, such as methylphenidate (Ritalin, Concerta, Metadate-CD, Focalin) or amphetamine (Adderall, Adderall-XR, Vyvanse), reliably leads to improvement in symptoms of ADHD, especially when combined with behavior therapy. There are also two non-stimulant medications approved for the treatment of ADHD (Strattera and Intuniv) that are sometimes used when stimulant medications have not worked or are not well tolerated. However, medication alone does not decrease a child's risk for the poor outcomes of adolescence and adulthood noted above. Therefore, medication should not be relied upon as the only treatment for a child with ADHD.

About 75% of children with ADHD respond to stimulant medication and the level of improvement varies from child to child. Therefore, it is important to evaluate carefully how much the medication is helping the child and whether there are side effects. The most common side effects include appetite loss (especially at lunch), difficulty falling asleep, headaches and stomachaches. Medication effectiveness and side effects can change over time so ongoing monitoring is recommended to determine if the benefits of the medication outweigh its side effects. Behavior ratings -- especially from teachers -- and objective data (e.g., observations, frequency counts of rule violations, amount of seatwork completed, and accuracy of seatwork) play a major role in this evaluation and monitoring.

- Because a child with ADHD's difficulties with children with other children, in the classroom, and in relationships with parents are the key areas that must be change to help a child, a behavioral approach that focuses on these should always be a part of treatment. Many children are sufficiently responsive to this treatment that medication is not needed. For others, the combination of behavior modification and medication is the most effective treatment. Behavior modification should be used at home, at school, and with peers. One big advantage of combining medication with behavior modification is that a child's medication dose can usually be reduced which usually decreases the rate of medication side effects.
- Children with ADHD are eligible to receive special educational services in school settings under the IDEA (Individuals with Disabilities Education Act), and Section 504 of the 1973 Rehabilitation Act. This legislation mandates that appropriate educational services be provided for all children with special needs, including children with ADHD, either in regular or special education classes.