

Attention Deficit Hyperactivity Disorder

Attention Deficit/Hyperactivity Disorder (ADHD) is a disorder of the brain that is characterized by the cardinal signs of impulsiveness, inattention, and/or hyperactivity. Normally, this condition is identified in school-age children. The impulsiveness component manifests itself through behaviors such as blurting out answers before the question is complete, failing to wait for one's turn in groups, intruding into conversations, and excessive talking with no regard for social appropriateness. Inattention is seen as being easily bored with tasks, and having difficulties in paying deliberate and conscious attention to a job at hand. Hyperactive children fidget or squirm continuously, are unable to remain seated for long, are often noisy, and show constant motion and activity. Although these features are common to healthy children as well, what distinguishes a child with ADHD from a typical child of the same age is the extent of inattention and/or hyperactivity. In affected children, these behavior traits are substantial, occur often, and significantly reduce the quality of their everyday life, both socially and academically.

Risk Factors

The exact set of causes of ADHD is not known. However, it is generally understood that the condition is a complex one, and that there may be several factors that contribute to it. Some studies have suggested that structural abnormalities in certain brain areas might be related to ADHD. In addition, low birth weight in babies, maternal exposure to stress or cigarette smoke during pregnancy, childhood trauma and parental loss could also lead to ADHD. Genetic studies indicate that genes involved in the pathway

that specifically carries out the secretion of dopamine (a chemical that relays messages between different brain cells) might be involved in the pathogenesis of the condition. Boys are more than three times more likely to be diagnosed with ADHD than girls. However, this could be due to the under-diagnosis of girls.

Diagnosis and Management

Diagnosis of ADHD can be difficult. The assessment criteria for the condition involve interviews with the parents, analysis of reports from teachers, observation of the child, medical evaluation to exclude other causes of the behavioral problems, rating scales and checklists. The most recent diagnostic criteria recognizes three different forms of this condition in patients: a predominantly inattention type, a predominantly hyperactive type, and a combined type. The most common diagnostic protocol uses the checklist in the box provided as a guide. In general, the presence of at least six symptoms from the first group is required for a diagnosis of the inattention type, and at least six symptoms from the second group need to be there for a diagnosis of the hyperactivity/impulsiveness type.

Management of ADHD depends upon the severity of the condition. For school age children with mild to moderate symptoms, behavioral therapy for the children along with parent training programs should ordinarily suffice. Parents and teachers may need to establish rewarding schemes for good behavior, ignore inappropriate behavior like fidgeting, and establish clear rules against unacceptable behavior like hitting. For more severe cases of ADHD that

cannot be managed with psychological therapy, medication might be needed. Although the short-term effects of these medications are remarkable, long term studies over a period of 3-years or more have not consistently shown better results compared to behavior modification therapy.

ADHD in the Arab World

Reported incidence of ADHD in the Arab World range from a high of 11.6 % in Saudi Arabia to a low

of 1.3% in Yemen. Prevalence rates based on large sample sizes are available for Iraq (10.5%), Qatar (8.3%), Oman (7.8%), Egypt (6.5%), Jordan (6.24%), UAE (4.1%) and Lebanon (1.7%). Studies have also found that ADHD in Arab populations is significantly associated with vitamin D deficiency, brain injury and/ or obesity. Some physicians have speculated that among Arab cultures there may be a higher threshold for what may be identified as a behavioral problem, which could result in under-diagnosis of ADHD.

Inattention

Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is inappropriate for developmental level

- » Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
- » Often has trouble keeping attention on tasks or play activities.
- » Often does not seem to listen when spoken to directly.
- » Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (loses focus, gets sidetracked).
- » Often has trouble organizing activities.
- » Often avoids, dislikes, or doesn't want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).
- » Often loses things needed for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
- » Is often easily distracted.
- » Is often forgetful in daily activities.

Hyperactivity / Impulsivity

Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level

- » Often fidgets with hands or feet or squirms in seat when sitting still is expected.
- » Often gets up from seat when remaining in seat is expected.
- » Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
- » Often has trouble playing or doing leisure activities quietly.
- » Is often "on the go" or often acts as if "driven by a motor".
- » Often talks excessively.
- » Often blurts out answers before questions have been finished.
- » Often has trouble waiting one's turn.
- » Often interrupts or intrudes on others (e.g., butts into conversations or games).