



*Attention-Deficit/Hyperactivity Disorder (ADHD) is a behavioral health problem in children and adolescents characterized by difficulty controlling attention, motivation, and behavioral impulses.*

## TYPES OF ADHD

This problem includes four different presentations. To be diagnosed as a *psychiatric disorder*, the problems must be more frequent and more severe than children normally exhibit, must have started before age 12, must be present for at least 6 months in 2 or more settings, and must impair the youth's function at home, at school, or with peers. It is estimated that around 5 out of 100 youths have ADHD, more boys than girls.

### ADHD, PREDOMINANTLY INATTENTIVE PRESENTATION

*ADHD, Predominantly Inattentive Presentation* is characterized by a persistent pattern of inattention and lack of motivation, particularly when sustained mental effort is required (such as for schoolwork or homework).

### ADHD, PREDOMINANTLY HYPERACTIVE /IMPULSIVE PRESENTATION

*ADHD, Predominantly Hyperactive/Impulsive Presentation* is characterized by a persistent pattern of overactive behavior when it is important to behave quietly, and impulsive behavior, such as being impatient or not stopping to think before acting.

### ADHD, COMBINED PRESENTATION

*ADHD, Combined Presentation* is characterized by both inattention and hyperactivity/impulsivity.

### UNSPECIFIED ATTENTION-DEFICIT /HYPERACTIVITY DISORDER

If some of the above problems are present, but not enough to diagnose a specific psychiatric disorder, or if the clinician does not have enough information to be certain about the specific diagnosis, the disorder is called *Unspecified Attention-Deficit/Hyperactivity Disorder*.



## DIAGNOSIS

Qualified behavioral health and medical professionals experienced with children (child and adolescent psychiatrists, pediatric neurologists, pediatricians, developmental behavioral pediatricians, child psychologists, child-trained social workers, counselors, clinical nurse specialists) are best trained to accurately diagnose ADHD. The evaluation for this diagnosis typically takes several hours, and requires input from multiple people who know the child, especially teachers. The diagnosis is based upon the findings from interviews, questionnaires, and a mental status examination. There are no blood tests or other medical tests to diagnose this disorder.



## CAUSE

In simple terms, ADHD is caused by a delay in maturation, or a difference in the structure or function, of the part of the brain that controls attention, motivation and behavioral impulses. Vulnerability to the development of ADHD can be inherited from members of the family tree. ADHD also can be caused by certain exposures in the womb (such as cigarette smoking), other chemical or physical injury to the brain, or by low birth weight. It can be made worse by an unstructured, unpredictable environment.



## TREATMENT

The most effective treatment for ADHD is medication, typically *stimulant medication*. Stimulant medication works by “stimulating” the part of the brain that controls attention, motivation, and behavioral impulses. Another type of medication that can be helpful is *alpha adrenergic medication* which calms an overactive brain. Tutoring the child in effective *study skills* (such as setting goals, planning ahead, self-rewarding) also can be helpful. At school, accommodations for inattention can be requested, such as frequent reminders to stay on task; reducing distractions; rewarding persistence; providing reminders to double-check work, to complete assignment books, and to turn in homework; and giving extra time to complete work. School *accommodations* for hyperactive/impulsive behavior also can be requested, such as providing opportunities for physical activity or “boredom breaks” during the day, providing a variety of interesting approaches to learning, giving rewards for control of behavioral impulses, and giving consequences for failing to control behavioral impulses.

Other strategies that can be useful are providing a predictable, structured environment at home (such as creating household rules and schedules) and a supportive environment for homework, such as providing a quiet place for homework, breaking homework tasks into small chunks, and providing small rewards for completing each chunk).

If the child has another behavioral health problem in addition to ADHD, treatment must include treatment of the other problem at the same time. About 1/3 of youths with ADHD also have learning and/or language disabilities that can be identified through psychoeducational testing and remediated with tutoring and/or speech therapy. Testing (and remediation if needed) should be requested from the school.



## COURSE

ADHD responds well to the above treatments when delivered by qualified behavioral health or medical professionals. About one-third of children grow out of ADHD in the teen or early adult years. Another one-third does well with appropriate home, school, and work supports. The remaining one-third of children may continue to need ongoing use of medication as well as formal accommodations at school and at work. If untreated, ADHD can lead to significant problems, including failure at school, injuries and accidents, involvement in risky behaviors, difficult relationships with parents and peers, and poor self-esteem.