

ADHD: An Overview



All people, whether they are old or young, male or female, sometimes have difficulty sitting still, paying attention, and controlling impulsive acts. But when these problems occur so often that they get in the way of day-to-day life, they may be signs of a neurodevelopmental condition called ADHD.

Attention-deficit/hyperactivity disorder (ADHD) is a common condition that causes inattention, hyperactivity/impulsivity, or both.

ADHD interferes with a child's ability to:

- regulate activity level (hyperactivity)
- inhibit behaviour (impulsivity)
- attend to the task at hand (inattention)

ADHD affects many areas of a child's functioning, including:

- self-control of behaviour
- school achievement
- development of social skills and positive relationships

Unless ADHD is identified and properly treated, children with ADHD are at higher risk for:

- school failure
- depression and anxiety
- problems with relationships
- substance abuse
- delinquency
- risk for accidental injuries
- job failure

For these reasons, it is very important to identify and treat ADHD early.

How common is ADHD?

ADHD is very common. On average, it affects 5% of school-aged children around the world, or about one in every 20 children. This means that in many countries, there may be one or two children with ADHD in every classroom.

ADHD is about three times more common in boys than in girls. However, ADHD is often easier to recognize and diagnose in boys, so the ratio of boys to girls in clinical practice is often higher still – about seven to nine boys for every girl. Girls with ADHD are more likely to be overlooked.

ADHD also affects about 4% of adults, or about one adult in 25.

ADHD is called a disorder, suggesting that people either do or do not have ADHD. In fact, though, ADHD symptoms occur on a continuum, like blood pressure. A child may have some inattentive or hyperactive symptoms without actually meeting the criteria for ADHD.

Also like blood pressure, ADHD symptoms may flare up based on the situation.

These children may also be at risk for poor school outcomes such as low productivity, lower academic grades, and lower scores on standardized testing.

When is ADHD usually diagnosed?

Children often start to show symptoms of ADHD in the preschool years. However, most children are not diagnosed with ADHD until they are in grade school. This is because most preschoolers are somewhat inattentive, impulsive, and highly active at times. So it may be more difficult for doctors to determine whether a preschooler's behavior is simply at the high end of the typical range of behaviour at this age, or whether it is persistently high, impairing, and meets the diagnostic criteria for ADHD.

Once the child goes to school, doctors can find out from the teacher whether the child is inattentive, impulsive, and hyperactive at school as well as at home. Because there is no specific test that doctors can use to confirm a diagnosis of ADHD, it is important to have as much information as possible about the child's behaviour.

Current medical knowledge about ADHD

There is still a lot we don't know about ADHD, starting with what causes it. However, several factors seem to contribute to ADHD. Scientists believe that genes and environmental factors cause subtle brain alterations. In turn, these brain alterations cause problems with behaviour and learning.

We also know that ADHD can be treated. Over the last few decades, many studies have shown that medication and behaviour therapy are effective at treating the symptoms of ADHD.

We still do not know:

- the exact causes of ADHD
- whether the genetic and brain differences seen in children with ADHD are a cause or an effect of ADHD
- why some individuals with ADHD are very successful and others are not
- why medication is effective at reducing the symptoms of ADHD

ADHD and school

Learning problems are a key feature of ADHD. Students with ADHD are at risk for:

- low scores on schoolwork and standardized achievement tests
- repeating a grade
- placement in special education
- dropping out of high school

Children with ADHD often have problems with:

- concentration
- working memory
- self-regulation and staying focused on a task
- processing speed

All these can cause problems with school work. In addition, children with ADHD often have one or more learning disabilities as well.

Medication can help with the symptoms of ADHD, but it usually does not address the other problems that can interfere with learning.

Medication also cannot make up for gaps in learning that may have occurred before the child started receiving treatment. It is very important that children with ADHD get the right support at home and in school to help them reach their full potential.

ADHD and college or university

Many students with ADHD do graduate from high school and enroll in college and university. These findings are encouraging; they show that many students with ADHD go on to higher education. On the other hand, college life is challenging to students with ADHD. They may continue to have social, academic, and behaviour problems.

ADHD and other conditions

ADHD rarely occurs by itself. People with ADHD often have:

- other types of co-existing mental health problems, such as oppositional defiant

behaviour, aggression, or high levels of anxiety

- learning disabilities, such as reading disability (dyslexia) and language impairments

These problems may further increase the risk for poor outcomes.

In this section

This section discusses:

- the causes of ADHD
- the symptoms and subtypes of ADHD
- how ADHD affects basic brain functions
- the ADHD team
- an overview of assessment for ADHD