

Understanding and

AUTISM

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THERE IS OFTEN confusion and debate regarding the distinction between ADHD and autism spectrum disorder (ASD). This article begins with a description and elaboration of their similarities and differences. Then we'll examine the impact of these two disorders in a four-year-old boy who has this dual diagnosis within a typical classroom, before closing with a discussion of diagnosis and treatment.

ASD is a neurological disorder that impacts development and involves a broad range of conditions characterized by challenges with social skills, restricted and repetitive behaviors, and deficits in speech and nonverbal communication. ADHD is also a neurological disorder in which individuals exhibit inattention, hyperactivity, and impulsive behavior that results in difficulties in their everyday life and tasks, such as interfering in their relationships with peers or leading to poor school grades.

ADHD is a common neurodevelopmental disorder often found in children. In the United States, approximately 9.4 percent of



Differentiating Between

and ADHD



children between the ages of 2 and 17 have been diagnosed with ADHD. There are three presentations: predominantly hyperactive-impulsive, predominantly inattentive, and combined. The combined presentation of ADHD, where the child experiences both inattentive and hyperactive-impulsive symptoms, is the most common. The average age of diagnosis is seven, and boys are much more likely to be diagnosed than girls, although this may be because ADHD presents differently in females.

ASD is another childhood condition that affects an increasing number of children. ASD is a group of complex disorders that impact behavior, development, and communication. About 1 in 55 children are currently diagnosed with ASD in the United States. Boys are four-and-a-half times more likely to be diagnosed with autism than girls.

ADHD is more common than ASD. According to the National Alliance on Mental Illness (NAMI), ADHD affects 9% of children aged 3–17, and 4% of adults. According to the US Centers for Disease Control and Prevention (CDC), around 1–2% of people across North America, Asia, and Europe have ASD.

ADHD versus ASD		
Comparison of the two conditions and their symptoms	ADHD symptoms	Autism symptoms
being easily distracted/impacted by processing delay	●	●
frequently jumping from one task to another or quickly growing bored with tasks	●	
unresponsive to common stimuli or over-responsive to sensory stimulus	●	●
difficulty focusing, or concentrating and narrowing attention to one task	●	
intense focus and concentration on a singular item		●
talking nonstop or blurting things out	●	
hyperactivity	●	
trouble sitting still	●	
interrupting conversations or activities	●	
lack of concern or inability to react to other people's emotions or feelings	●	●
repetitive movement, such as rocking or twisting		●
avoiding eye contact		●
withdrawn behaviors		●
impaired social interaction	●	●
delayed developmental milestones		●

Jordan in the classroom

Jordan, a four-year-old boy with the dual diagnosis of ASD (high functioning) and ADHD (inattentive presentation), is placed in a classroom with fifteen neurotypical developing peers, one teacher, and no aide. The class, which was in its tenth week of the school semester, was learning the letters of the alphabet.

The children had been assigned the night before to bring from home an item that began with the letters H, M, or B. The children were instructed to place their home items in their cubbies as they entered the classroom and then go to the rug by the teacher to begin the day's instruction.

Before Jordan could sit down, he undressed from the clothes that his mother has dressed him in that day (a

long-sleeved shirt and long pants), and changed into the same tennis shorts and tee shirt that he wears every day in class. He then looked lost as he tried to find his spot on the carpet near his peers, who repeatedly tell him to move away from them, that he is "yukky" and they don't want to sit next to him on the floor.

A child raises her hand to ask the teacher if she may go to her cubby to retrieve her home item. Jordan raises his hand about 30 seconds after his peer and asks the same question. He waits until all of his classmates have returned from their seats to then goes to the area of his cubby. Even though he had placed his original shirt and pants in his cubby upon his arrival to class, he appears at a total loss, both to where his personal cubby space is located and what it is that the teacher has instructed him to do in the first place.

The components of both ADHD and ASD are at play here. Various red flags include:

- A possible sensory challenge to both the tactile system (Jordan's need to change into the same clothes at school every day and his hesitation to engage with his whole class, as he waits until after everyone has completed the task to go up to his cubby): characteristic of both ASD and ADHD.
- There appears to be a processing delay in the raising of his hand that suggests a challenge to his participation in his academic world in a timely fashion: characteristic of both ASD and ADHD.
- His challenge with following directions suggests an inattention that again complicates his academic experience: characteristic of ADHD.
- The subtle and not-so-subtle social isolation and bullying: characteristic of the social challenges of children with both ADHD and ASD who are not able to read social cues well and/or have difficulty forming relationships with peers.

When ADHD and ASD occur together

Individuals with ASD experience challenges with social skills, communication, and thinking. Repetitive behaviors are also part of ASD. Some behavioral traits that are common to children with ASD but not ADHD include: trouble understanding sarcasm, humor, or irony; showing empathy; and making eye contact as well as deciphering other nonverbal communications such as facial expressions or body gestures.

On the other hand, individuals with ADHD may present with similar behaviors (trouble focusing and not reading social cues well, etc.), but this is due to their underlying difficulties specifically with attention, hyperactivity and

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impulsivity. For example, children with ADHD find it difficult to focus, sit still, pay attention, and curb their impulsivity, which may lead to poor social skills, difficulty coping with studies, and forming of relationships with peers.

The American Psychiatric Association (APA) stated for years that the two conditions couldn't be diagnosed in the same person. In 2013, the APA changed its stance with the release of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), which states that the two conditions can co-occur.

In a 2014 review of studies looking at the co-occurrence of ADHD and ASD, researchers found that between 30 to 50 percent of people with ASD also have symptoms of ADHD. Researchers don't fully understand the cause for either condition, or why they occur together so frequently. Both conditions may be linked to genetics. One study identified a rare gene that may be linked to both conditions. This finding could explain why these conditions often occur in the same person.

Getting the proper treatment

The first step in helping a child get the proper treatment is getting a correct diagnosis. Currently, there are no specific scientific tools, such as blood tests, to diagnose ASD or ADHD. Researchers are working on ways to use brain-imaging tools to identify both conditions.

Healthcare professionals specializing in childhood neurodevelopmental conditions will usually diagnose ASD and ADHD by observing the child and taking a complete personal and medical history. Additionally, tests may be administered to look for difficulties with learning, sensory processing, or motor skills.

Managing the symptoms of ADHD can help manage the symptoms of ASD, too. The behavioral techniques a child learns may help lessen the symptoms of ASD. That's why getting the proper diagnosis and adequate treatment is so vital.

Most experts agree that there is no cure for ASD. Many people with ASD do not see autism as something that doctors need to cure or that they need treating. People can, however, improve any health conditions they associate with ASD and take steps to reduce any daily difficulties of ASD.

In many cases, the sooner someone receives a diagnosis of ASD or ADHD, the better their chances of reducing problems with school, jobs, and interpersonal relationships. Some people use the following therapies, with varying degrees of success, to manage ASD:

- behavioral analysis

- speech therapy
- social skills training classes
- physical therapy
- occupational therapy
- sensory integration therapy or a sensory diet
- medications to help manage anxiety, depression, and other existing conditions, such as ADHD
- adjusted school routines

Some people use the following therapies to manage ADHD:

- cognitive behavioral therapy (CBT)
- educational and organizational coaches
- adjusted school routines
- behavioral therapy
- ADHD medications

Behavioral therapy is also often used as a treatment for both ADHD and ASD. Medication may also be prescribed to treat symptoms. In people who have been diagnosed with both ASD and ADHD, medication prescribed for symptoms of ADHD may also help some symptoms of ASD. A child's doctor may need to try several treatments before finding one that manages symptoms, or there may be multiple treatment methods used simultaneously.

While ASD and ADHD are lifelong conditions that can cause similar behavior traits, they are different conditions with different causes. Scientists continue to study the connection between them. Research may reveal more information about the causes and more treatment options may become available. 🗣️

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ADDITIONAL READING

American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5).

Hess, Esther. "Differentiation and Treatment of ADHD and ASD in Children," presented at the 2020 CHADD Virtual Conference on ADHD.

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