LIFE WITH ADHD:

50 FACTS & MORE

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50 FACTS

& MORE

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TEAM ADHD
TREATING, EDUCATING AND MANAGING ADHD

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CONTENTS

6 MILLION+

More than 6 million children & adolescents have ADHD in the United States

Preface

Life With ADHD: 50 Facts & More was developed for all types of readers, including parents and caregivers supporting children or adolescents with Attention-Deficit/Hyperactivity Disorder, also known as ADHD. Teenagers or adults diagnosed with ADHD may also benefit from various items highlighted within, as may other interested third parties such as teachers, social workers, or those in the healthcare field.

More than 6 million children and adolescents have ADHD in the United States—that's 1 in every 10 school-age children. Adults with ADHD are likely to have dealt with symptoms since they were younger, but may only recently been diagnosed. If a child has ADHD, a parent or caregiver might not be sure how to best support them. Luckily, there are many resources available (see page 131).

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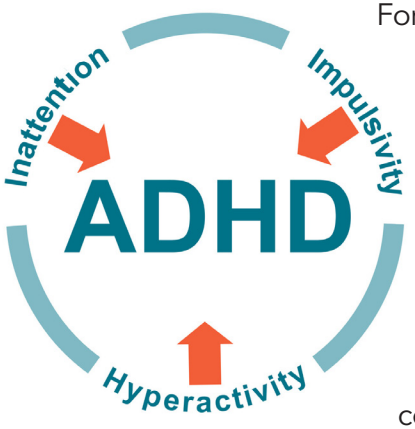
ADHD is a lifelong disorder that involves difficulty paying attention, being excessively active, or acting without thinking. Everyone is different, therefore, an adult or child may experience all or some of these behaviors. ADHD symptoms might change over time as well.

Determining whether a child or adult has ADHD

The assistance of parents, caregivers, or teachers may be needed in determining whether a child has ADHD, as these adults may interact with the child daily.



For adults trying to determine whether they have ADHD, insight from parents, siblings, co-workers, or significant-others as to their behavior may be needed. Doctors are not quite sure exactly what causes ADHD, but for most people there is a genetic component. Researchers note that there are some differences in how a person with ADHD processes information.

Getting the right diagnosis for ADHD is very important as children with unrecognized ADHD also may have anxiety, depression, or learning disabilities. If you are a parent or caregiver and are noticing ADHD symptoms in your child, seeking medical help may potentially prevent future problems in school, with their friends, and with self-esteem.

There are several ways that a doctor can help manage a person's ADHD, including helping them find what works best for them.

1. Medicine can help control the symptoms of ADHD, as well as any additional conditions that may be present. Many options are available. Readers can discuss what choices are available and what to expect from them with their doctor.
2. Behavioral therapy also can help with symptom control. This type of therapy can help both children and their caregivers learn how to best manage behaviors.
3. Children and adults with ADHD may benefit from a combination of both medicine and behavioral therapy. This is called multimodal treatment.

Parents and caregivers can be their child's best advocate by ensuring that the child receives all the support needed to do well. Parents may need to talk to their child's teacher to make sure that the child can thrive in school.

There are many strategies that can help adults with ADHD cope with symptoms. For example, some workplace accommodations may be helpful. There are many adult-specific ADHD resources and support groups available (see page 131). Whether you are a parent or caregiver or the person with ADHD, getting connected with others who are going through similar experiences can be helpful.

KEYWORDS & CONCEPTS INTRODUCED IN SECTION 1

ADHD
attention/alert network
basal ganglia
behavioral disorders
brain stem
cerebellum
combined presentation
Comorbid Complex ADHD
comorbidities
conduct disorder
cortex
depression
DSM-5
eating disorder
executive function network
frontal cortex
frontal lobe
Fronto-cerebellar network
hyperactive-impulsive presentation
hyperactivity/impulsive behavior
inattention
inattentive presentation
learning disorders
mood disorder
neurobehavioral
neuro-developmental
nucleus accumbens
occipital lobe
ODD
orbitofrontal cortex
parietal cortex
parietal lobe
prefrontal cortex
reward network
Simple ADHD
socioeconomic
supplemental motor cortex
temporal lobe
thalamus
tics

SECTION 1

WHAT IS ADHD?

Many people sometimes have a hard time sitting still or paying attention. High levels of activity and short attention spans are considered normal, especially in children.

However, when these behaviors affect a person's ability to function at home, school, work, or with family and friends, they may be a sign of a more serious medical condition.

If you or a child you care for have a hard time paying attention, are overactive, or act without thinking, it may be due to **attention-deficit/hyperactivity disorder (ADHD)**.

FACT 1

ADHD used to be called attention-deficit disorder (ADD).

With advances in the understanding of ADHD, the name of the disorder has evolved over the years. At the turn of the century, the condition was described as a hyperkinetic (hyperactive) disease of infancy. Prior to 1968, ADHD was known as 'minimal brain disorder' by the medical community. The definition accepted by the American Psychiatric Association has evolved from the first description in 1968:

- 1968, hyperkinetic reaction of childhood
- 1980, attention-deficit disorder; with or without hyperactivity (ADD)
- 1994, attention-deficit/hyperactivity disorder (ADHD)

ADHD is often recognized in early childhood, but some people are diagnosed in their teen or adult years. Even if a person is diagnosed with ADHD as an adult, their symptoms likely started during childhood but were not severe enough to cause concern, or they may have learned to live with their symptoms.

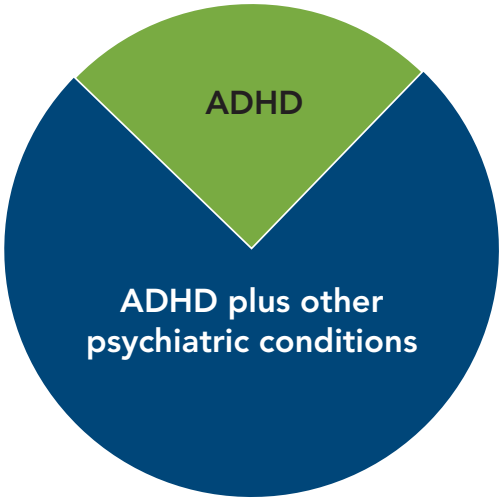
For both children and adults, the symptoms of ADHD can have a negative effect on productivity, quality of life, and life expectancy (due to increased risk for accidents, and higher rates of suicide). Although early diagnosis and treatment can help people adjust to living with ADHD, it is never too late to recognize and get treatment for the disorder.

Today, healthcare providers recognize ADHD as a childhood-onset **neurodevelopmental** disorder associated with inappropriate **attention, hyperactivity/impulsive behavior**. **They also recognize two types of ADHD:**

Simple ADHD describes people with core symptoms of inappropriate attention and/or hyperactivity/impulsive behavior.

Comorbid Complex ADHD describes people with core ADHD symptoms plus another psychiatric condition that also impairs function, such as depression, anxiety, or compulsive behavior.

ADHD Is Less Common Than Comorbid Complex ADHD



There are multiple potential explanations for the existence of **comorbidities** and/or overlapping symptoms between ADHD and other disorders, including

- One disorder is a precursor to another;
- One disorder is a risk factor for development of the other;
- ADHD and the comorbid disorder share a common biological and genetic basis; or
- Some comorbid disorders may be a direct consequence of ADHD symptoms and their impact

DID YOU KNOW?

Even if a person is diagnosed with ADHD as an adult, their symptoms likely started during childhood but were not severe enough to cause concern, or they may have learned to live with their symptoms.

SIMPLE ADHD

Core symptoms of Simple ADHD

Symptom	Doctors call this
Difficulty paying attention	Inattention
Overactivity or restlessness	Hyperactivity
Acting without thinking	Impulsivity

Symptom severity can range from being inconvenient or uncomfortable to being very disruptive.

Not all people with ADHD have the same core symptoms. Many children with ADHD experience all three core symptoms of ADHD. However, some children may experience only one (inattention) or two (hyperactivity and impulsivity) of these symptoms. These symptoms often lead to trouble or behavioral problems at school or at home, which may lead parents to seek help from a medical professional.

There are three presentations of Simple ADHD. These are based on the types of symptoms the ADHD is causing.

- **Inattentive presentation:** Most symptoms relate to having a hard time paying attention
- **Hyperactive-impulsive presentation**: Most symptoms relate to being overly active and/or acting without thinking
- **Combined presentation**: Many symptoms of the inattentive and hyperactive-impulsive presentations are present

About 1 in 10 school-age children and adolescents have ADHD.

FACT 2

COMORBID COMPLEX ADHD

Beyond the core symptoms of Simple ADHD, a growing number of people with ADHD are recognized as having additional psychiatric disorders. These additional disorders are known as comorbidities. These individuals are considered to have Comorbid Complex ADHD.

Approximately 75% of people with ADHD in the United States will have at least one additional mental, emotional, or behavioral condition that can impact the management of ADHD. **The majority have *more than one* comorbid disorder**.

During the assessment for ADHD, healthcare providers will also evaluate whether a number of other comorbid conditions are also present. Some of these other conditions can make treating ADHD more challenging if not diagnosed, so it is important to have them treated at the same time that ADHD is being treated.

ADHD with behavioral disorders

Disruptive **behavioral disorders** such as **oppositional defiant disorder** (ODD) and **conduct disorder** (CD) are common in children with ADHD. Children with ODD may argue often, lose their temper, refuse to follow rules, or blame others. Children with conduct disorder may be aggressive toward others or toward animals. They may lie, steal, or skip school.

Children with CD tend to outgrow this condition, but when CD persists into adulthood, it becomes known as Antisocial Personality Disorder (APD).

DID YOU KNOW?

Children with ODD regularly behave badly toward parents and/or teachers, and other authority figures.

ADHD with depression

People with ADHD are at a higher risk for having a **mood disorder**. Mood disorders can cause symptoms such as frequent bad moods, irritability, or excessive crying. Their mood can be very sensitive and reactive, they can seem to be on an 'emotional roller coaster.' **Depression** is a kind of mood disorder. About 14% of children and 50% of adults with ADHD also have depression.

ADHD with anxiety

Some people with ADHD also have an anxiety disorder. People with anxiety worry more than normal about school or work. They can have feelings of stress and tiredness, and may have trouble sleeping. For people with ADHD plus anxiety, some of the FDA-approved medicines used to treat ADHD can make anxiety worse, especially stimulants (see section 2).

ADHD with tics/ Tourette syndrome

Tics describe the sudden, involuntary, rapid, non-rhythmic movement or sound that people do repeatedly. They can involve one group of muscles or multiple muscle groups. Tics are different from the fidgetiness and restlessness associated with ADHD. Tourette syndrome is a tic disorder lasting more than one year that starts before 18 years of age. Tourette syndrome is often accompanied by ADHD and/or obsessive compulsive disorder (OCD).

FACT 3

One in three children with ADHD also have anxiety.

ADHD with autism spectrum disorder

Autism spectrum disorder describes a range of impairment of social communication and restrictive repetitive patterns of behavior, interests, or activities. Signs of ASD may be detected at 2 to 3 years of age, whereas ADHD is typically recognized around 6 to 7 years of age, or older.

ADHD and substance use disorder

Adolescents with ADHD are at increased risk for substance use (tobacco, alcohol, illicit substances), and drug misuse and dependency in their adult years. Substance use can increase symptoms of ADHD and/or comorbid disorders, and can increase risk for injury or death.

DID YOU KNOW?

In the absence of a specific learning disorder, academic and work performance can be impaired for people with ADHD.

Sleep disorders

Sleep disorders are common in people with ADHD, and can include;

- difficulty falling asleep
- awakening during the night
- sleepiness during the day

Sleep disorders can be made worse by certain types of medicine used to treat ADHD (see section 2).

Learning disorders

Learning disorders are common in children with ADHD. They may have trouble obtaining or using new information. Children may find it hard to read or do math. Problems speaking can occur in children with ADHD.

Parents of children with a learning disorder should check to see if there is an educational specialist available at school. Educational specialists can make the necessary changes to a child's school assignments to help them succeed.

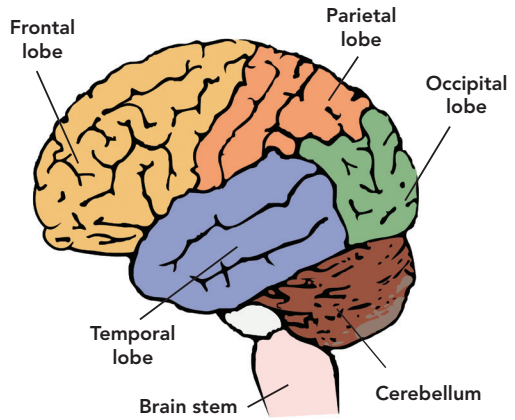
FACT 4

The frontal lobe is the part of the brain in charge of paying attention, movement, impulse control, and problem solving.

The brain & ADHD

Today, ADHD is recognized as a childhood-onset **neurodevelopmental** disorder associated with delayed development of key regions of the brain and altered communication between specialized regions of the brain. **To help understand what is different about the brain of a person with ADHD, let's take a look at how the brain works**.

Key Regions of the Brain



The brain is organized into **regions** and **centers** within those regions, that coordinate and process information and control higher functions, including voluntary movement, social behavior, and mood.

- **The brain is divided into lobes, while the immediate outer cover of the brain is layered/connected with the cerebral cortex.**
  - The **frontal lobe** is involved with the regulation of body movement, speech, intellect, cognition and emotion
  - The **parietal lobe** is located behind the frontal cortex, on the top of the brain. This region of the brain is involved with the integration of sensory information and complex movement
  - The **occipital lobe** is located at the back of the brain, receives and processes visual information
  - The **temporal lobe** is located on both sides of the brain, at about ear level. The right side lobe interprets visual images and memory, whereas the left side is involved with understanding language and interpretation of other people's emotions

Together, these four lobes and the cerebral cortex support brain activity.

- The **cerebellum** is another region of the brain that controls balance, posture, and movement

The last region of the brain we will discuss is the **brain stem**, which is found below the cerebral cortex, and connects the brain to the spinal cord. The brain stem includes a collection of centers that act like routers, moving information from location to location to control movement, emotion, aggression, and behavior.

Four brain lobes + cerebellum + brain stem = the human brain

The brain of a person with ADHD differs from the brain of someone without ADHD in two main ways.

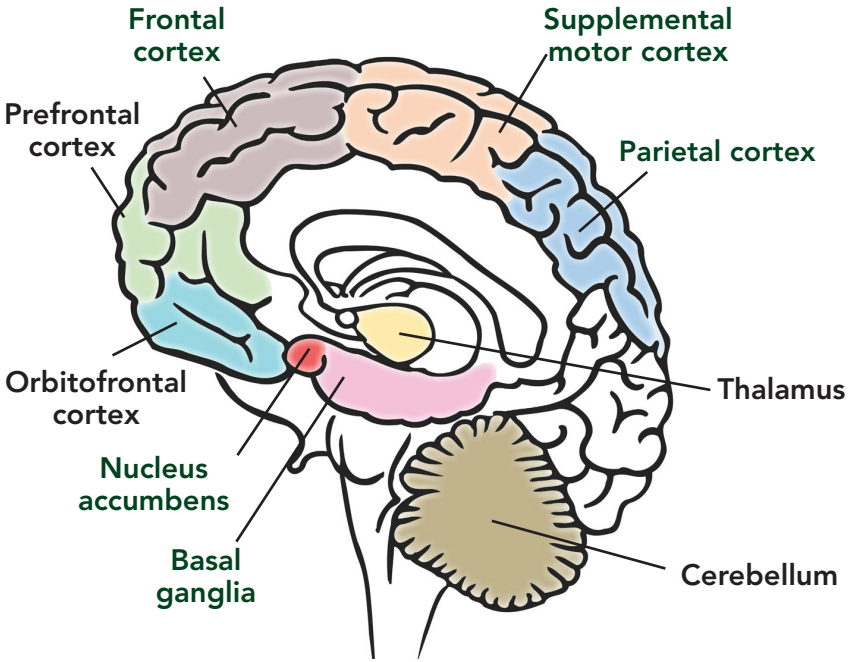
Growth and size: The size of several areas in the brain is smaller in the brains of children with ADHD. In some cases this may be related to slower growth and maturation. Some of these differences are also found in the brains of adults with ADHD.

- The frontal lobe of the brain may mature a few years later than normal in people with ADHD
- The gray matter size in the **prefrontal cortex** and **orbitofrontal cortex** of children and adolescents with ADHD is related to symptom severity
- The size of the cerebellum is also smaller in the brains of people with ADHD

Networks and connections: There are differences in the way brain centers communicate with each other in children and adults with ADHD. In some cases, several centers or brain regions will share information as a network. In many cases, these networks involve regions of the **cortex**, brain stem, and cerebellum. Several well-known networks involved with core symptoms of ADHD are described and illustrated on pages 26 and 27.

The pathways described here are not mutually exclusive. They interact in multiple ways to control behavior in people with ADHD.

Below is a representation of some of the centers of the brain that may be involved with the symptoms of ADHD.*



*Adapted from: Purper-Ouakil D, et al. *Ped Res.* 2011;69:69R-76R; Rubia K. *Front Hum Neurosci.* 2018;12:100; Faraone S. *Neurosci. Biobehavioral Rev.* 2018;87:255-270.

The **executive function network** includes the ability to activate, organize, and manage tasks, activity, and memory. Through these processes, individuals are able to understand and adjust behavior based on their understanding of the short- and long-term consequences of their actions.

The **attention/alert network** involves frontal and parietal lobes, and the **thalamus**. Attention includes both selective (preferential attention to a single interest) and sustained (ability to perform a continuous task over time) attention.

DID YOU KNOW?

Children with the inattentive form of ADHD have different frontal cortex interactions than children with combined symptoms.

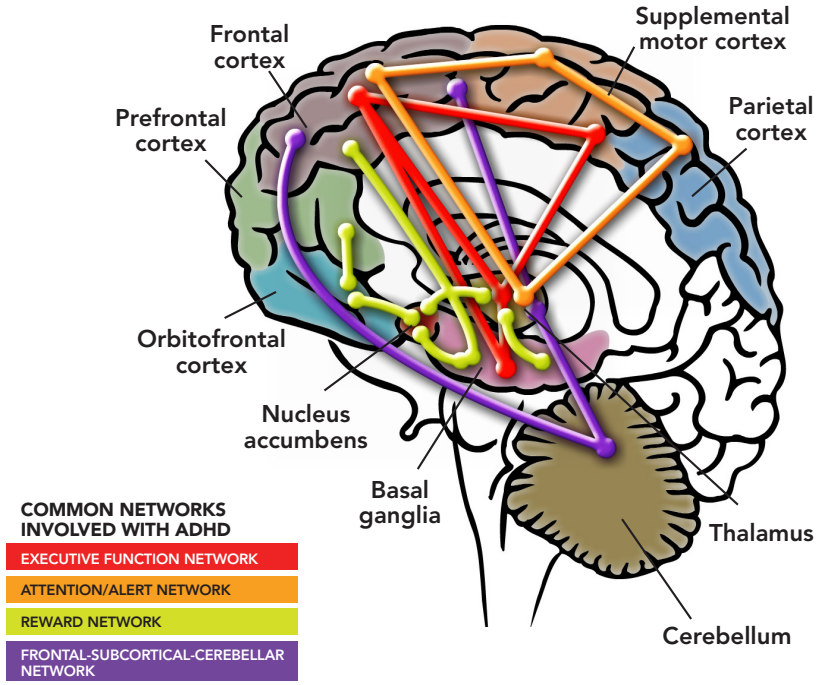
The **reward network** is an essential response to behavior or activity that elicits positive interaction with beneficial situations (learning or activity) and avoidance of situations that are not beneficial.

DID YOU KNOW?

As a group, individuals with ADHD display changes in "reward processing," preferring to respond "impulsively" for short-term reward over larger, delayed rewards.

The **frontal-subcortical-cerebellar network** regulates the anticipated timing of events (the immediacy of a response) and can interact with reward and attention networks through connections in the brain stem.

Below is a representation of some of the networks and centers involved with the regulation of attention and hyperactivity in people with ADHD.



For some people, networks and centers associated with attention, hyperactivity, or impulsivity are also involved with regulation of symptoms associated with comorbidities.

Did You Remember?

the different types of ADHD described on page 13?

FACT 5

About 1 in 10 school-aged children and adolescents have ADHD.

How common is ADHD in children & adults?

If you or a child you care for have ADHD, you are not alone. ADHD is one of the most common brain disorders in children.

In the United States, about 6.1 million children and adolescents have ADHD. Most children diagnosed with ADHD are between 6 and 17 years old. However, about 388,000 children between 2 and 5 years old also have ADHD.

Boys are more likely to be diagnosed than girls. Some healthcare providers think that girls are affected by ADHD as much as boys are, but their symptoms may not be as obvious.

DID YOU KNOW?

Even though ADHD is more widely recognized now, it can still be missed and go undiagnosed.

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It seems that the number of children with ADHD has increased over the past 10 years. However, scientists are not sure whether this is because there are more children with ADHD or because more children are being diagnosed.

ADHD is diagnosed more often in boys than girls.

FACT 6

FACT 7

ADHD often persists into adult years, with impairment of social, academic and job performance.

Children with ADHD can continue to have symptoms as adolescents and adults. Some people actually may not be diagnosed until adulthood. This might be the case if symptoms are mild or not easy to recognize. Some symptoms may not be noticed until struggles begin in school, work or home when cognitive demands increase.

DID YOU KNOW?

With the increased demands of adolescence and adulthood, the consequences of the impairments that accompany ADHD can change and worsen as a person ages.

FACT 8

ADHD runs in families and can be inherited.

What causes ADHD?

There is no single cause for ADHD. Scientists have found that many things, including genetics, may contribute to the disorder.

Other factors that can contribute to ADHD include:

- Premature birth
- Low birth weight
- Drug or alcohol use during pregnancy
- Exposure to toxins, like lead or pesticides, in early childhood
- Brain injury
- Psychiatric disorders in the mother
- Lower **socioeconomic** status
- Family dysfunction

DID YOU KNOW?

There are many factors in addition to genetics that can lead to someone being more likely to have ADHD.

DID YOU KNOW?

The consequences of untreated ADHD are substantial and pervasive at all stages of life.

Impact of ADHD from childhood to adult years

Preschool	• Behavioral disturbances • Unintentional injuries
Grade school	• Aggressive tendencies • Academic impairment • Difficulty with social interactions
Adolescence	• Incomplete academic achievement • Experimentation with illegal substances • Antisocial behavior • Low self-esteem
College	• Academic failure • Inability to cope with routine tasks • Occupational difficulties • Low self-esteem
Adulthood	• Relationship problems • Mood instability • Increased road and occupational accidents • Inconsistent parenting

Comorbidities associated with ADHD also change with age. Common comorbidities include:

- In children: oppositional defiant disorder, conduct disorder, pervasive developmental disorders, anxiety, and learning disorders. Less commonly, substance use disorder, tics, depression and bipolar disorder
- In adults: depression, bipolar disorder, substance abuse, and anxiety are common

Impact of ADHD on children

ADHD affects more than just a child's behavior and performance in school. It can have a lasting impact on the relationships a child has with his or her family, friends, and their self-esteem.

The burden of caring for a child with ADHD can challenge the whole family. Family stress can make symptoms of ADHD worse. Helping a child with ADHD develop and maintain positive relationships is an important part of their treatment. There are many resources where parents, families, and adults with ADHD can find information about the disorder and its treatment, as well as referrals for doctors or other healthcare providers who specialize in treatment of ADHD. **A list of additional resources is available on page 131 of this book**.

Siblings are also affected by the behavior of a brother or sister with ADHD.

FACT 9

FACT 10

Classes are available to help parents understand and manage behaviors in ADHD.

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The parent–child relationship

One of the most important relationships in a child's life is with his or her parents. The role parents play in a child's development is especially important for children with ADHD.

Sadly, some children with ADHD do not have a good relationship with one or both parents. Mothers often have an especially hard time building a strong relationship with a child who has ADHD.

If you care for a child with ADHD, his or her behavior may cause you frustration and stress. This is understandable, but this should not cause you to question your parenting skills. It can take a lot of time and energy to handle ADHD-related issues. It is important to remember that children with ADHD need guidance and understanding from their parents.

DID YOU KNOW?

Parenting styles do not cause ADHD. However, certain parent-child interactions can make symptoms of ADHD better or worse.

Family & spousal relationships

Conflict between parents and children with ADHD is common. Siblings of a child with ADHD are also likely to have stress related to living with someone with the disorder.

DID YOU KNOW?

Poor parent–child relationships can sometimes lead to more behavioral problems in teenagers with ADHD.

It is important to know that family conflicts may cause children to feel less safe or secure in their home. Inconsistent discipline also can negatively affect the child's behavior.

An adult's ADHD symptoms may result in them taking on fewer household responsibilities. Spouses or partners may feel the adult with ADHD is forgetful or not dependable. Over time, adults may become frustrated with their partner's inability to keep promises. This may cause the person with ADHD to feel unimportant. Adults with ADHD may feel unmotivated because the responsibilities they do complete are not being recognized.

Talking with trained healthcare providers about developing a family plan to help work through the challenges of ADHD in a household is always a good idea. **A list of additional resources is available on page 131 of this book**.

Did You Remember?

ADHD is a neurodevelopmental disorder that affects children and adults (*see page 13*)
ADHD can be divided into Simple or Comorbid Complex types (*see pages 13-14*)
There are three presentations of simple ADHD (*see page 16*)
Comorbid Complex ADHD describes people with ADHD plus other conditions that impact function and quality of life (*see pages 17-21*)
Several key pathways in the brains of people with ADHD work differently than in people who do not have ADHD (*see pages 22-27*)
ADHD may be caused by a combination of genetic and environmental factors (*see page 31*)
Although ADHD begins during childhood, the impact can be lifelong (*see pages 32-33*)
ADHD not only impacts the person with the condition, but also affects other family members (*see pages 35-37*)

HOW IS ADHD DIAGNOSED?

There is no single test that can diagnose ADHD.

FACT 11

FACT 12

Many types of medical professionals can identify ADHD, including clinical psychologists, social workers, nurse practitioners, neurologists, psychiatrists, and pediatricians.

Evaluating children for ADHD

Impulsive or inattentive behavior is typical of children under 4 years of age. However, these behaviors should improve as children grow and develop. If impulsiveness or attention problems continue in children between the ages of 4 and 18 years, they should be checked for ADHD, especially if they are also having academic problems.

The diagnosis of ADHD is a complicated process. A healthcare provider will need to evaluate the child's behavior carefully. The provider will want to know how the child behaves at home, school, or work, and how they interact with peers.

To help make the diagnosis, a healthcare provider should use recommendations from the American Psychiatric Association's **Diagnostic and Statistical Manual, Fifth edition (DSM-5)**.

DID YOU KNOW?

There is no blood or genetic test for the diagnosis of ADHD

The DSM-5 provides specific symptoms that need to be present for a diagnosis of ADHD. We have already talked about the three main symptoms of ADHD: **inattention**, hyperactivity, and impulsivity. **Common behaviors seen with these symptoms include:**

Inattention	Hyperactivity and impulsivity
Failing to pay close attention to details or making careless mistakes	Difficulty sitting still or remaining seated
Losing focus during activities or when following instructions	Feeling restless
Failing to listen when spoken to directly	Inability to participate in activities quietly
Difficulty getting organized	Often "on the go" or acting as if "driven by a motor"
Avoiding or disliking tasks that require sustained concentration	Talking a lot
Losing things	Blurting out an answer before a complete question has been asked
Being distracted easily	Difficulty waiting for his or her turn
Being forgetful in daily activities and/or responsibilities	Interrupting or intruding on others

Healthcare providers may check if the child has another medical condition. This may include a physical exam and a review of past medical history. Vision and hearing also may be evaluated.

Recognizing if other medical conditions are present is important. Sometimes, other conditions can be the cause of symptoms: Children and adults with anxiety, depression, or certain learning disabilities may have symptoms similar to ADHD. In fact, these may be the main reason for the symptoms they are having. In other cases, symptoms of another condition may occur at the same time as symptoms of ADHD.

FACT 13

ADHD is most often diagnosed at 7 or 8 years of age.

Children with ADHD usually take longer to become independent or gain emotional stability. If you care for a child with ADHD, you may notice that he or she doesn't behave as maturely as other kids their age. They may get frustrated easily and have a hard time controlling their emotions. The child's teacher may have told you that they have difficulty paying attention in class, they make careless mistakes in schoolwork, or lose school supplies. The child may move around excessively and has trouble waiting for his or her turn.

A healthcare provider evaluating a child for ADHD will speak with parents and other relevant caregivers about the child's behavior. Teachers will be contacted and, if appropriate, the provider may speak directly with the child about their symptoms.

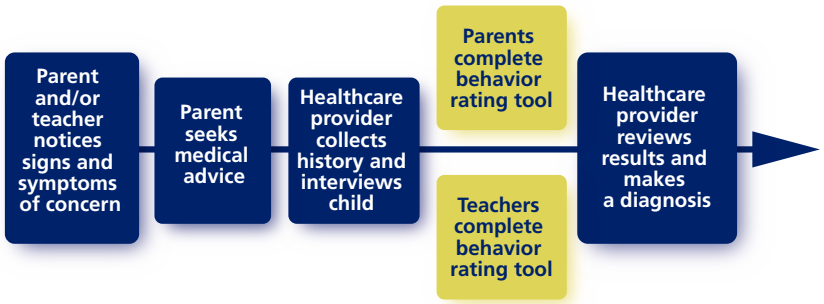
To be diagnosed with ADHD, a child must have at least six symptoms of inattention or hyperactivity and impulsivity for at least 6 months. The symptoms
Should be considered unusual for the child's developmental level
Should start before the age of 12 years
Must occur in at least two major settings, such as at home, school, or with friends or relatives
Interfere with the ability of a child to function or develop

Symptoms of ADHD change over time. If you care for a child with ADHD, his or her symptoms will likely change from childhood to adolescence. Usually, symptoms of hyperactivity and impulsivity will get better over time. However, symptoms of inattention usually persist as children with ADHD get older. Comorbidities also change with age. Caregivers and families should remain watchful for symptom changes that may suggest a change in ADHD and/or related comorbidities.

Surveys for parents & teachers

Parents and teachers of a child with ADHD may be asked to complete a special survey. This survey can help determine how well the child functions in different settings. Additional surveys may be used to determine whether the child has an additional comorbidity or disability, such as a learning disorder.

If you are filling out a survey, keep in mind that there are no right or wrong answers. For all questions, choose the answer that best describes your child's behavior in that situation most of the time. Responses as a whole will be used by healthcare providers as part of the child's evaluation for ADHD.



Surveys are also used to track the child's symptoms between doctor office visits. The doctor will use the insights gained from these surveys to assess how well ADHD treatment is working. These surveys are also helpful for monitoring side effects related to medicines used to treat ADHD.


shironosov/istock.com

If you fill out such surveys about your child, it is helpful to do your best to accurately report when the child takes his or her ADHD medicine and how often a dose is missed. This information will help the doctor prescribe the lowest effective dose of medicine needed to manage symptoms.

Evaluating adolescents/teens for ADHD

Caring for a teenager with ADHD can be especially challenging. Between 12 and 17 years of age, the demands of school and life increase. Teenagers with ADHD may struggle with being independent or taking on responsibilities. They are also likely to have a hard time coping with peer pressure and emerging sexuality.

If you care for an adolescent with ADHD, he or she may have problems with internal uneasiness, paying attention, and controlling emotions. Problems with alcohol or drug use may be present. Additionally, adolescent girls with ADHD are more likely than boys to have an **eating disorder**.

Symptoms and behaviors commonly seen in adolescents and young adults include the following:
Poor time management
Procrastination, especially for tasks that demand more attention
Feeling an internal sense of restlessness
Avoiding jobs that require less activity or lots of sitting
Being easily frustrated or quick to anger
Making hasty decisions

A healthcare provider may want to talk with the caregivers or parents of an adolescent with ADHD regarding concerns related to their symptoms. Teachers may be asked to provide feedback on the adolescent's behavior and performance at school. Adolescents up to 16 years of age need to show six or more symptoms of inattention or hyperactivity and impulsivity to be accurately diagnosed. Adolescents who are 17 years of age only need to show five or more symptoms of inattention or hyperactivity and impulsivity.

DID YOU KNOW?

Teenagers and adults with ADHD may have driving troubles, and many have a history of speeding tickets and traffic accidents.

Similar to the diagnosis of ADHD in younger children, symptoms of the disorder in adolescents must be present for at least 6 months and in at least two major settings (home, school, work, or with friends or relatives). They also must have started before 12 years of age.

At the adolescent stage of diagnosis for ADHD, it is important to have proof that the symptoms interfere with functioning at school, work, or in social settings and are not appropriate for the adolescent's developmental level.

First-time detection of ADHD in adults

Adults with ADHD often have trouble with day-to-day responsibilities. They may have a hard time getting up in the morning or remembering to keep appointments. If they work, adults with ADHD may have trouble arriving on time, following directions, and fulfilling their job functions.

Many adults with ADHD also have trouble maintaining relationships with family, friends, and colleagues. If they have children, their parenting style may be inconsistent.

ADHD begins in childhood but may not be recognized until adulthood.

FACT 14

If you are being evaluated for ADHD as an adult, a healthcare provider may want to speak with family members or significant others in your life who know you well. A history of past and current ability to function, childhood behavioral problems, and performance in previous or current schooling is part of the evaluation.

To receive a diagnosis of ADHD as an adult, five or more symptoms of inattention or hyperactivity and impulsivity must be present for at least 6 months.

Similar to the diagnosis of ADHD in children and adolescents, symptoms of the disorder in adults must be present in at least two major settings (home, school, work, or social settings), and must have started before 12 years of age. There should be clear evidence that symptoms interfere with social settings at school, work, or in social settings.

DID YOU KNOW?

Many adults may not know they have ADHD.

KEYWORDS & CONCEPTS INTRODUCED IN SECTION 2

adherence
dopamine
drug diversion
drug holidays
heart block
MTA Study
multimodal treatment
nonstimulants
norepinephrine
panic attacks
parent–child interaction therapy
planned ignoring
positive reinforcement
psychostimulants
rating scale
rebound symptoms
Schedule II drugs
sedation
self-medicating
side effects
stimulants
subjective effect
transdermal systems

SECTION

2

HOW IS ADHD TREATED?

FACT 15

Treatment of ADHD is tailored to each individual's symptoms and needs.

Treatment for ADHD can include medicines, behavioral therapy, or both. The treatment chosen depends, in part, on age at the time of diagnosis.

DID YOU KNOW?

Goals of treatment for ADHD depend on the age at time of diagnosis and the most prominent symptoms.

Before beginning treatment for a child with ADHD, it is important for parents or caregivers to talk with their doctor to understand the goals of treatment.

- For preschool children, goals may include improving behavior at home and during play
- For school-aged children, common goals include completing homework assignments or being able to sit in class for a specific period of time
- For adolescents and adults, treatment goals include finishing tasks on time or driving safely

Consistent bedtime routines can help children fall asleep more easily.

FACT 16

DID YOU KNOW?

Recent guidelines for the treatment of ADHD from the American Academy of Pediatrics describe the importance of medicine and behavioral therapy for children and adolescents

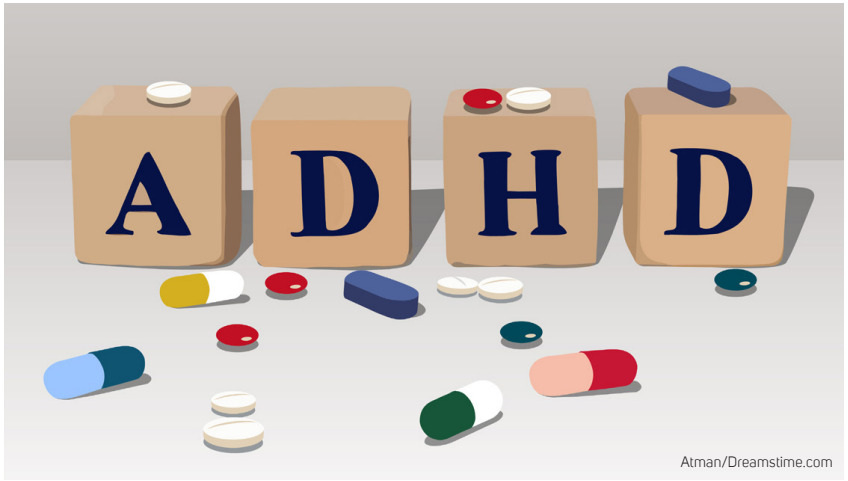
You should start treating ADHD as soon as possible after diagnosis to improve symptom control.

When treating with FDA-approved medicine, it is important to:

- Ensure all-day, every day medicine coverage—ADHD is considered to be a chronic condition
- Individualize therapy in order to balance efficacy with tolerability, and to address comorbidities as needed
- Strive for symptom control
- Assure continued treatment into adulthood, when needed

FACT 17

Treatments for ADHD do not cure the condition, but medicine can greatly improve the symptoms.



Atman/Dreamstime.com

ADHD MEDICINE

Two types of FDA-approved medicines are available for treatment of ADHD: **stimulants** and **nonstimulants**.

How medicine for ADHD works

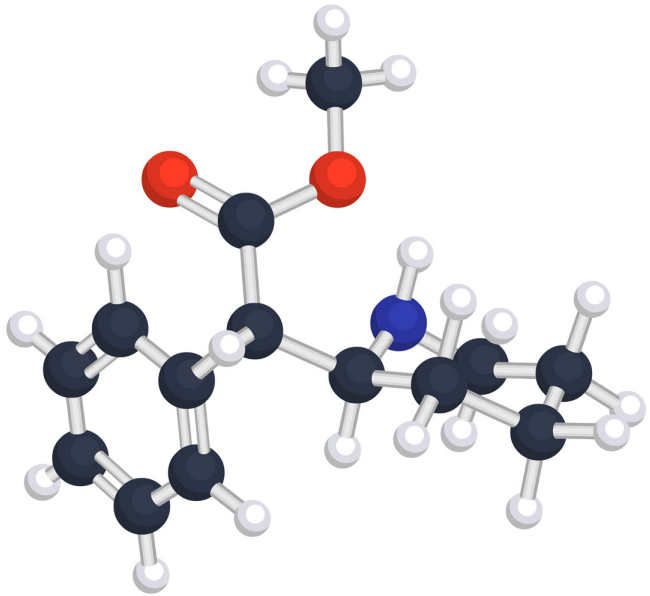
Stimulants and some nonstimulants work in ADHD by elevating brain levels of the neurotransmitters **norepinephrine** and **dopamine**. Other nonstimulants mimic the effect of norepinephrine. These neurotransmitters are critical for maintaining normal functioning of neuronetworks, and can improve symptoms of ADHD.

DID YOU KNOW?

Until 2002, stimulants were the only type of approved medicines for ADHD.

Stimulants

Historically, stimulants, also called **psychostimulants**, have often been the first choice of treatment when medicine is needed. These drugs can be effective and can help to relieve symptoms by increasing levels of norepinephrine and dopamine in the brain.



Molecular Arts/shutterstock.com

Effective therapy for ADHD improves the symptoms in children, adolescents, and adults with this disorder.

FACT 18

Dosage forms of stimulants

Stimulants are available in several different dosage forms based on how long they work and how they are given. Some are available as short- or long-acting forms.

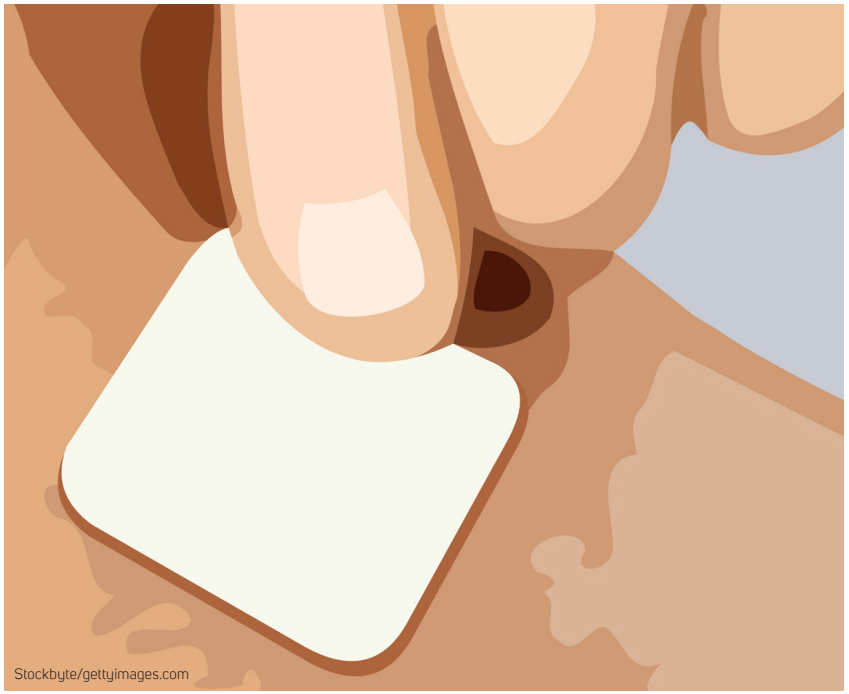
- Short-acting stimulants usually are taken two or three times per day. They work anywhere from 2 to 4 hours
- Long-acting forms usually are taken once a day. They typically work for 12 to 24 hours
- If a child has trouble swallowing pills, other options are available. These include patches that can be worn on the skin (called **transdermal systems**), liquids and chewable tablets, as well as capsules that can be opened and sprinkled on food

Some stimulants have a long-acting liquid form that can be given once a day.

FACT 19

FACT 20

Stimulant patches can last for up to 12 hours, even though the patch is only worn for 9 hours.



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FACT 21

Treatment of Comorbid Complex ADHD may require more than one prescription medicine.

Depending on the specific medicine prescribed, children with ADHD may be able to either take their medicine once or twice a day. This may make it easier to give a child medicine at a time that fits his or her routine.

Unlike other medicines used in children, a child's dose of a stimulant is not based on his or her weight or body size, but is related to how fast the body metabolizes the drug. Instead, if they are given a stimulant, their doctor usually will begin treatment with a low dose. The dose can then be increased slowly as the doctor sees how the child reacts to the medicine.

It is very important to understand the dosage strength and form of the medicine prescribed by a healthcare provider. Some medicines will need to be swallowed whole. Others can be opened and sprinkled on food. Still others can be placed under the tongue and dissolved in the mouth. A doctor or pharmacist can give you information on the best way to administer the medicine.

DID YOU KNOW?

Adolescents who express "not feeling like themselves," or children who are continually irritable while taking an ADHD medicine, may be on a dose that is too high for them, or a different medicine may be needed.

FACT 22

Parents, caregivers, and teachers can help keep an eye on the positive and negative effects of ADHD medicine.

Side effects of stimulants

Although many people can take ADHD medicine with little or no problems, some may experience **side effects**. Many side effects may be mild. But parents and caregivers, as well as adults with ADHD, should report any side effects to their healthcare provider.

The most common side effects while taking stimulants can include:

- Loss of appetite and/or thirst
- Stomach ache
- Headache
- Trouble sleeping

Decreased thirst and appetite can lead to dehydration and hypoglycemia, with associated symptoms (tired, spacey, irritable). The symptoms can be quickly alleviated by giving children something to drink and a snack.

FACT 23

If stimulants cause a stomach ache or a headache, the doctor may suggest trying to give the medicine on a full stomach.

If side effects are causing problems or discomfort, a healthcare provider may be able to help ease them by:

- Reducing the medicine dose
- Changing the time of day it is taken
- Using a different form of the medicine
- Switching to another medicine

DID YOU KNOW?

A healthy diet is recommended in the treatment of ADHD.

Jamie Grill/gettyimages.com

If you are a parent or caregiver of a child with ADHD taking a stimulant, there are steps to follow if you notice any of these side effects.

For example, if your child loses his or her appetite, you may try giving them their medicine after breakfast or feeding them a larger meal at dinner when the side effects have worn off. **Always consult with the healthcare provider prescribing the medicine when you notice any side effects**.

If a stimulant medicine causes difficulty sleeping, you can talk to your doctor about giving the medicine earlier in the day or using a shorter-acting form of the medicine. If your child's ADHD symptoms return later in the day when medicine is taken early in the day (called **rebound symptoms**), insomnia may become a problem as a symptom of ADHD. Discuss options (such as higher dose or a longer acting medicine) with a healthcare provider.

DID YOU KNOW?

Changes in eating habits or medicines may be needed if you notice a change in your child's appetite or weight.

It is important to talk with a doctor before making any changes to the way ADHD medicine is taken.

Stimulants have been linked with more serious side effects, but these are not common. Stimulants can make symptoms of certain comorbidities (anxiety, aggression, tics, or **panic attacks**) worse.

Stimulants are known to affect the function of the heart. Although this is rare, caregivers should talk to their child's doctor about any family history of heart problems.

Stimulants have been reported to affect a child's growth, including height and weight. However, the effects may be small and possibly only seen in the first 1 or 2 years of treatment. Caregivers should discuss any concerns they have about their child's weight with the healthcare provider.

Your healthcare provider should routinely monitor heart rate, blood pressure, height and weight.

DID YOU KNOW?

Stimulants are known to affect the function of the heart. Although this is rare, caregivers should talk to their child's doctor about any family history of heart problems.

FACT 24

Currently approved nonstimulant medicines help reduce symptoms, but each works differently.

Nonstimulants

A different class of medicines, called nonstimulants, are available for the treatment of ADHD. These medicines can be effective for ADHD. Some may be more effective on hyperactivity and aggression; whereas others may be more effective on inattention and impulsivity.

A child's dose of some nonstimulants will be based on their body weight. Unlike stimulants, changes in dose may be slower with nonstimulants due to a slower time to symptom improvement. It may take several weeks to see the effect of the medicine on a child's symptoms. Other nonstimulants are started at low doses and are increased slowly as needed.

Side effects with some nonstimulants are similar to those seen with stimulants, including loss of appetite, headaches, stomach ache, and weight loss.

DID YOU KNOW?

Treatment with medicine can help to improve symptoms of ADHD but does not cure the condition.

Some people with ADHD may need a combination of stimulant and nonstimulant medicine to fully control their symptoms.

FACT 25

Other possible side effects may include tiredness in children as well as sexual dysfunction in older adolescents and adults.

Nonstimulants that elevate norepinephrine levels have warnings about their effects on the liver and a risk for self-harm. Parents and caregivers should discuss all potential side effects and how to detect them with their child's doctor.

Sedation, low blood pressure, and constipation can be common side effects seen with nonstimulants that mimic the effect of norepinephrine. If a child is very sleepy during the day, their doctor might suggest taking these nonstimulants at bedtime instead of the morning or switching to twice-a-day dosing.

Rare but serious side effects, such as a very slow heart rate, fainting, or **heart block** have been reported. These side effects may be less likely to happen with longer-acting forms of nonstimulant medicines designed for the treatment of ADHD.

Did You Remember?

Early diagnosis and treatment can help people live more comfortably with ADHD. But it is never too late to recognize and get treatment for ADHD

DID YOU KNOW?

Doctors may have to try several different medicines and doses before finding the best option for children or adults with ADHD.

How are stimulants & nonstimulants different?

Stimulants and nonstimulants have different effects on the brain. They have other differences, too such as:

- How they are taken
- Different strengths and dosage forms available
- Possible side effects
- How much and how quickly they may improve symptoms

FACT 26

The effect of ADHD medicine can be different for each individual.

TAKING ADHD MEDICINE: WHAT TO EXPECT

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A prescribing doctor may start treatment with a low dose of a stimulant. The dose usually is increased every 3 to 7 days to reach the desired level. With the correct dose, most children (more than 70%) will respond to a stimulant.

Nonstimulants usually are used after a stimulant has been tried without success or is stopped due to side effects. In some cases, a nonstimulant can be used at the same time as a stimulant; to improve treatment effect, or to extend the duration of response during the day, or to allow lower doses of stimulants to be used. For other people, nonstimulants may be used as the first medicine. This may be a better option if the person is likely to be very sensitive to the potential side effects of stimulants, or if they have certain other medical conditions.

Did You Remember?

About one-third of children with ADHD also have problems with anxiety or depression.

A doctor should check a child newly started on a stimulant after 1 week to see if the medicine is working. This is done by observing the child's behavior on the medicine. Any side effects should be noted as well.

Parents should review their child's status again with the doctor after about a month to see if changes are needed or if the stimulant should be continued for a longer period of time. Once a stimulant is at the right dose, positive effects of the medicine are usually seen within 30 to 90 minutes of each dose.

Depending on the nonstimulant used, it may take longer to see the medicine's effect, sometimes up to a couple of weeks.

Stimulants can worsen untreated anxiety.

FACT 27

With either type of medicine, it is important to know that finding the right dose may take a few months. It may be necessary to change medicines during this time, especially if side effects become bothersome or if the symptoms of ADHD are not easing.

Once a medicine is effectively controlling symptoms, the child should be seen regularly by the doctor. This includes continued assessment of the medicine's effectiveness and side effects, and a physical exam (such as height, weight, blood pressure, and heart rate).

Positive effects on hyperactivity and impulsivity often are first noticed when starting an ADHD medicine.

FACT 28

Watching for improvement

There are various ways to track how well a child's symptoms are improving while on therapy. This is often done using a **rating scale** that is calculated from questionnaires that parents, teachers, or older children/adolescents/adults can fill out, usually in a few minutes. Rating scales can be used by a parent, teacher, doctor, or another observer to monitor improvement or changes in ADHD symptom control.

A number of rating scales are available for evaluating children and adolescents with ADHD:

- Conners Scales
  - — Conners Comprehensive Behavior Rating Scale (CBRS)
  - — Conners-Wells' Adolescent Self-Report Scale
- Behavior Assessment System for Children (BASC-3)
- ADHD Rating Scale-5
- Brown ADD Scale
- Swanson, Nolan, and Pelham-IV (SNAP) Questionnaire
- National Institute for Children's Health Quality (NICHQ) Vanderbilt Assessment Scale

FACT 29

ADHD rating scales can be used any time to track a child's symptoms and behaviors.

The types of behaviors that are rated include:

- How often a child has difficulty paying close attention to a task at school or during play
- How often a child can follow through on instructions
- How often a child has difficulty waiting his or her turn during an activity

It can be helpful for several people to observe a child's behavior, as parents and teachers may see different behaviors during different parts of the day. Having more than one evaluation can help capture the full picture of how well a child is doing on his or her medicine. All of the ratings can be shared with a child's doctor to determine if changes are needed in a medicine.

Different rating scales are used for assessing adults. Although most scales are used to screen for ADHD, some can be used as self-reporting tools that the adult completes themselves. These include:

- The Adult Attention-Deficit/Hyperactivity Disorder Quality of Life Scale
- The ADHD Impact Module for Adults
- Conners Adult ADHD Rating Scale-Self Rated
- Conners Adult ADHD Rating Scale-Observer Rated
- Adult ADHD Self Report Scale

Having to take medicine only once a day can help older children and adolescents remember to take the medicine as prescribed.

FACT 30

Control throughout the day

Short-acting medicines need to be taken several times during the day; therefore, long-acting medicines may be preferred for school-aged children to avoid having to take medicine at school. Having to take medicine only once a day can help older children and adolescents remember to **take their medicine as prescribed**. **This is called adherence**.

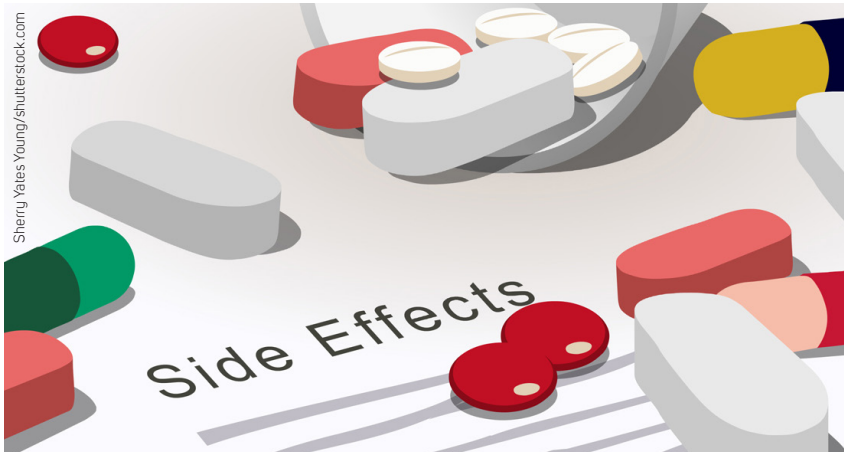
For very small children (less than 35 lb), short-acting stimulants often are preferred so that a smaller dose of the medicine can be used.

DID YOU KNOW?

"Adherence" or taking medicine exactly as prescribed by a doctor, every time, all the time, is very important. Reasons that a person with ADHD may have for not taking their medicine as prescribed (called nonadherence) can include:

- I forgot
- I do not like the side effects
- I am feeling better; I do not need this medicine
- I worry about what others will think of me

CHOOSING THE RIGHT MEDICINE



Sherry Yates Young/shutterstock.com

Along with short- or long-acting dosing, other changes to a child's medicine might be considered. These include:

- A change in the dosage form (pill or capsule, liquid, patch)
- Changing the time the medicine is taken to help when symptoms are most frequent. For example, the child might take the medicine during the school day instead of in the evening
- Sprinkling the medicine on soft foods for children who have trouble swallowing pills or capsules. A liquid medicine may also be used
- Chewable tablets and tablets that dissolve in the mouth are also available

Special concerns with stimulants

Medicines that present a potential for abuse or addiction are ranked by the DEA (the federal Drug Enforcement Agency) into one of five "Schedule" categories	
Schedule V is the lowest risk for abuse	Examples include Robitussin® AC, Lomotil®
Schedule IV	Examples include Xanax®, Valium®, Ambien
Schedule III	Examples include ketamine, anabolic steroids
Schedule II	Examples include Oxycontin®, stimulants (including ADHD stimulants)
Schedule I is the highest level of abuse concern for drugs with no current medical use and high risk for abuse	Examples include LSD, ecstasy

Stimulants used for treating ADHD are classified as **Schedule II drugs**. Because of this classification, pharmacies have different rules for filling these prescriptions. Stimulant prescriptions may be limited to a 30-day supply. There may be a limit on how many times the prescription can be refilled. A doctor may need to provide a written prescription for stimulants, rather than simply "calling it in" or sending a digital prescription to the pharmacy for a fill.

FACT 31

Nonstimulants may be better for certain people if there is concern about substance abuse or if they have certain co-existing conditions, like tics or anxiety.

Stimulants potentially can be abused. One factor that is important in considering the abuse potential of any medicine is something called a **subjective effect**. This refers to how good the medicine makes a person feel after they take it. Stimulants can have a significant subjective effect for people without ADHD, which is why they may be more likely to abuse them. People with ADHD may not have the same subjective effect when taking stimulants.

Jamie Grill/gettyimages.com

DID YOU KNOW?

Rules for prescription refills at pharmacies can vary from state to state.

FACT 32

Stimulants used for treating ADHD are classified as Schedule II drugs. Because of this classification, pharmacies have different rules for filling these prescriptions.

Misuse of stimulants is a concern for many parents when they are used for treating ADHD. Misuse of stimulants can be both for recreational purposes as well as to help students stay awake while studying.

Something called **drug diversion** also can be an issue. Most adolescents and young adults with ADHD do not misuse their medicines, but they may be tempted to share or sell them, which is considered a crime. This is referred to as drug diversion. In fact, misuse of stimulants occurs more often by grade school and high school students who do not have ADHD and who have obtained the stimulants illegally.

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Studies of misuse of stimulants among college students suggest that some of these students actually have symptoms of ADHD but have not been diagnosed by a doctor. These students may be **self-medicating** with stimulants that have not been prescribed for them. Many of these students say they take stimulants for reasons such as better concentration, alertness, or motivation.

sturti/gettyimages.com

If you or your child are prescribed a stimulant, there are a few ways you can help ensure these medicines are used correctly:

- Only carry your medicine with you if absolutely necessary, and avoid carrying medicines in a backpack or purse
- Carry your medicine in a properly labeled prescription bottle
- Store all of your medicines in a secure place, whether at school or work or at home
- Explain to your child that their medicine should never be shared with friends or others who might ask

FACT 33

Among medicines for ADHD, short-acting stimulants have the highest risk for abuse.

HOW LONG DOES ADHD MEDICINE NEED TO BE TAKEN?

It is important to remember that ADHD can continue for a long time, even into adulthood. Treatment with medicine helps to improve symptoms of ADHD but does not cure the condition. Some people need ongoing treatment that can continue for many years, others may be able to control their symptoms to an extent that they no longer need medicine to maintain a good quality of life.

Did You Remember?

Hyperactivity symptoms tend to decrease as children get older.

The types of medicine, and how much a child needs to take, should be evaluated regularly. As children grow, there are several signs his or her medicine may be able to be reduced, or possibly stopped:

- The child is symptom free for more than a year
- The child's behavior continues to improve on the same dose of medicine
- Missing one or two doses of medicine does not cause inappropriate behavior to return

The desire to stop taking medicine for ADHD may increase as a child grows to adolescence. If the child's doctor decides to reduce or slowly discontinue his or her medicine, parents should watch behavior carefully for any return of ADHD symptoms. This may include a decline in academic performance or an increase in risk-taking behavior; teachers should also be included in the discussion about discontinuing medicine.

Drug holidays

Healthcare providers have historically considered **drug holidays** for individuals who have problems or concerns with medication side effects. However, ADHD is an all day, every day condition and the absence of effective therapy, even for a short period of time, can diminish the benefits of an effective treatment plan at all ages. Talk with your healthcare provider about any concerns you have, and potentially switching to another medicine with fewer side effects.

WHAT IS BEHAVIORAL THERAPY?

Behavioral therapy can be an important part of ADHD treatment. It can be used alone or with medicine. Usually behavioral therapy begins with educating parents about ADHD, the behavioral problems it can cause, and how family relationships may be affected. One of the goals of behavioral therapy is to help parents understand their child's behavior and to provide parents with the skills to help their child improve his or her behaviors.

Behavioral therapy may also be a good first option if an adult or child has mild symptoms or if the diagnosis of ADHD is uncertain. It is also okay to ask a doctor about trying behavioral therapy first if you prefer that type of treatment over medicine.

Parenting a child with ADHD can be challenging. Professionals can help and support parents and caregivers of children with ADHD. Behavioral training for parents usually includes 8 to 12 group sessions with parents and a trained therapist.

Tools learned by parents practicing behavioral therapy include:
How to use **positive reinforcement** with your child
How some behaviors of ADHD can be reduced by **planned ignoring**
How to establish appropriate negative consequences for your child when behavior goals are not met

Praising or rewarding your child (positive reinforcement) when tasks or behavior goals are achieved can often improve a child's behavior and reduce the need for discipline or negative consequences.

FACT 34

A parent teaching a child self-control is a major part of behavioral training.

Some behavioral techniques that can be used at home, in the classroom, and with younger children include:

- Establish consistent rules and routines at home
- Learn how to react to both positive and negative behaviors
- Plan ahead when taking your child out in public
- Be consistent with the way you discipline

GagliardiPhotography/shutterstock.com

Behavioral therapy also can be used at home, in the classroom, and in social settings

In the classroom, behavioral therapy is done with a system of positive reinforcement, using tokens or points to reward activity. If behavioral therapy is used in a child's school, his or her teacher should provide parents with a behavior report tracking their child's progress in achieving set goals for behavior.

Summer programs may also be available to help children with ADHD further build social skills (behavior at playtime, making friends), organizational skills (to improve school studies), and overall independence. This type of therapy may be done in a group setting, again using positive reinforcement.

In the classroom, behavioral therapy is done with a system of positive reinforcement, using tokens or points to reward activity.

FACT 35

Using the same behavioral therapy methods at home, in the classroom, and with peer groups can help promote improved behavior for children with ADHD.

For preschool children, behavioral therapy generally is tried before deciding to prescribe medicine. If behavioral therapy alone is not helping, then medicine may be added.

One type of behavioral training for parents of preschool children is **parent–child interaction therapy**. Here, parents first are taught how to respond to their child's behavior in a positive way and to ignore disruptive or inappropriate behavior. A coaching session follows, during which a therapist can help the parent with their interactions with their child. This approach usually involves 12 to 20 weekly sessions between the parent and child.

Did You Remember?

One of the most important relationships in a child's life is with his or her parents. The role parents play in a child's development is especially important for children with ADHD.

COMBINING MEDICINE & BEHAVIORAL THERAPY

Although both medicine and behavioral therapy on their own may be effective for treating ADHD, a combination of the two is often needed for school-aged children. This is called **multimodal treatment**.


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When reading about treatments for ADHD, you may see reference to a large trial, often referred to as the **MTA Study**. This study compared three different approaches to treating ADHD: medicine alone, behavioral therapy alone, and a combination of both (multimodal treatment). The study found that:

- Medicine alone and/or multimodal treatment were the most effective approaches for school-aged children
- Children receiving multimodal treatment needed a lower dose of stimulants than those who were treated with stimulants alone

The MTA Study is important for several reasons. It was conducted for a long period of time and it compared different ways of treating ADHD. Overall, it showed that treatment of ADHD needs to be individualized for each child. This is why it is important for parents of children with ADHD to discuss with their doctor which treatment options are best for their child.

DID YOU KNOW?

The results of the MTA Study showed that medicine alone and/or multimodal treatment were the most effective treatment approaches for school-aged children with ADHD.


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KEYWORDS & CONCEPTS INTRODUCED IN SECTION 3

ADHD coach
CHADD
disclosing
mood disorders
psychiatric nurse practitioners
psychiatrists
psychologists
role play
social workers
substance abuse

SECTION

3

LIVING WITH ADHD

ADHD is often a lifelong condition, but it does not need to cause lifelong stress. There are many tools available to help. With the right support, children with ADHD will have the opportunity to develop normally. The goal is to diagnose ADHD as soon as possible so treatment can begin as early as possible.

Brian A Jackson/shutterstock.com

DID YOU KNOW?

It is never too early to talk to your child about his or her ADHD.

Talking with children about ADHD

Parents are an important resource for their children. If you are a parent or caregiver of a child or adolescent with ADHD, you should be aware that they will often look to you for information and support, and you may feel uncomfortable or unprepared for this. Do not worry, there are many resources to help, including those found on page 131 in this book.

When you are ready to talk about ADHD with your child, choose a time when you won't be distracted or interrupted. Keep the conversation reassuring and positive.

- For younger children, it may be best to focus on their behavior
- For older children, you may want to talk more about how their brain works and why certain symptoms or behaviors are happening

DID YOU KNOW?

Children with ADHD have above-average creativity.

FACT 36

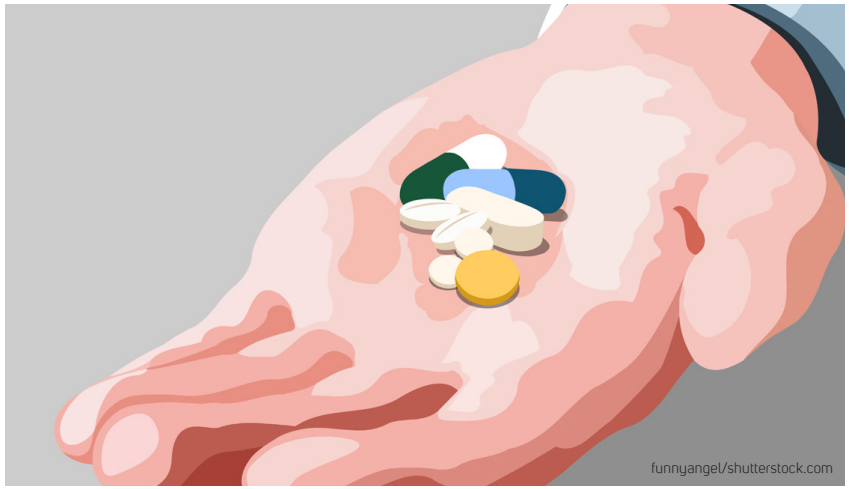
Many resources are available to help parents feel more confident when talking with their child about ADHD, including those found on page 131 of this book.

Here are some tips for talking to a child or adolescent about their ADHD:

- Assure the child that how he or she is feeling is normal for a person with ADHD. **They are not alone**
- For example, tell them that part of ADHD is having many exciting ideas that may come all at once and that he or she may not know what to do with all of the energy
- Remind them that ADHD is not an excuse for bad behavior but you will help when there is trouble
- Assure them that you can work together to make things better at home and school

Understanding medicines: Why they are taken & what to expect

It is important that a person with ADHD understands what the medicines they take will and will not do. Parents and caregivers should have regular conversations with their child about this. **They should reassure him or her that taking medicine is nothing to be embarrassed or upset about**.



Children may feel embarrassed about taking ADHD medicine.

FACT 37

FACT 38

One study found that nearly half of parents inaccurately reported their child's adherence to ADHD medicine.

It can be helpful to explain that taking medicine is like wearing eyeglasses: Just like glasses help people see better, ADHD medicine helps people with ADHD pay attention, learn, and behave better.

Andrey_Popov/shutterstock.com

Parents play a key role in making sure young children take their medicine when appropriate. However, older children may want to be more involved with, or take control of their medicine routine. Parents and caregivers should continue to talk with their older child about adherence to their medicine. They can "check in" with them from time to time about when and how they take their medicine. Sometimes parents may not pay as much attention to the medicine-taking habits of an older child with ADHD as they should.

Did You Remember?

"Adherence" means taking medicine exactly as prescribed by a doctor all the time.

FACT 39

Adolescents who are worried about the side effects of their medicine may be less likely to take it.

Helping with social skills

All parents worry about their child's social skills and ability to make friends. This is especially true for children with ADHD.

There are many ways to help a child with ADHD improve social interactions. One tip is to be specific with them: Rather than telling them to "be nice," it can be helpful to more directly tell them to share, take turns, and compliment others when appropriate.

It is helpful to praise children with ADHD when they are successful in social situations. Parents can also practice social skills with their child through **role play**. This way they can be "coached" through specific social situations.

Hosting a play date with friends may also be considered. This allows caregivers to watch their child's behavior and intervene as necessary.

A child with ADHD may need help finding appropriate friends. For example, parents may find that their child is more comfortable with younger children because children with ADHD can have delayed social skills.

FACT 40

Children with ADHD often are not aware that their behavior is disruptive to their friends.

Caregivers of a child with ADHD will benefit by receiving training in behavioral therapy that focuses on social skills. This will help them better assist the child in making new friends and building friendships. These programs have been shown to be beneficial in improving social behaviors.

CONCERNS FROM CHILDHOOD TO ADULT YEARS

ADHD was once considered a childhood disorder that usually was outgrown. Now it is known that many children with ADHD continue to have symptoms as adults. So it is important to consider how ADHD changes from early childhood to adulthood.

FACT 41

Preschoolers usually are diagnosed with ADHD because of hyperactive or impulsive behaviors.

Preschool

Preschoolers are normally very active with short attention spans. In some children, this hyperactivity and impulsivity is extreme. About 2% to 6% of preschool-aged children are believed to have ADHD.

For these children, doctors usually recommend parent training in behavioral therapy rather than medicine. Parent training in behavioral therapy during the preschool years can reduce problem behaviors and improve the parent–child relationship. However, some preschoolers may require medicine if their behavior is not improved with behavioral therapy.

FACT 42

Parent training in behavioral therapy is the best first treatment for young children.

School age

ADHD is most commonly diagnosed during the early school years. In addition to the core symptoms of ADHD, school-aged children with ADHD may display poor sleep patterns, have difficulty in school, and have low self-esteem.

Liliya Olhova/istock.com

DID YOU KNOW?

Some schools offer special education programs for children with ADHD.

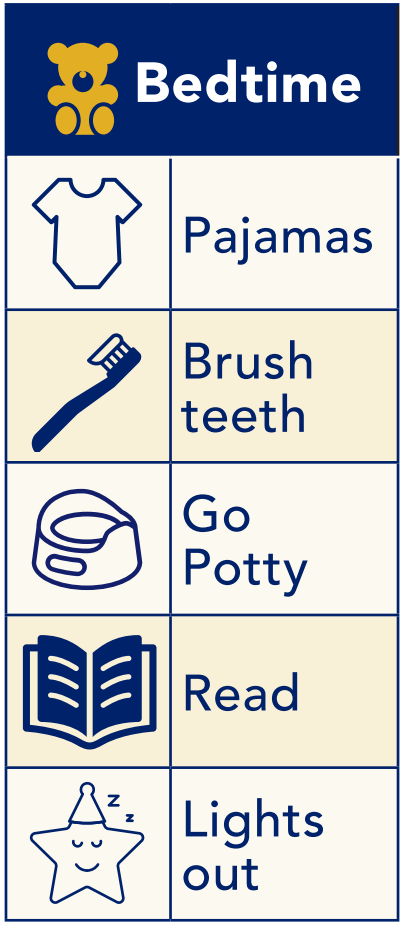
Children with ADHD are two to three times more likely to have sleep problems than kids without ADHD.

FACT 43

About 25% to 50% of children with ADHD have difficulty sleeping, which can increase hyperactivity, impulsivity, or behavioral problems. Parents should talk with the child's doctor if they notice changes or problems with their child's sleep.

Some ways to help improve sleep include:

- Setting a consistent bedtime and sticking to it
- Maintaining a regular wake schedule, even on weekends
- Avoiding television or video games before bed
- Having a bedtime routine to transition from the busy day
- Providing a restful room that is dark, quiet, and cool
- Exercising during the day (but not within 3 hours of bedtime)
- Monitoring eating habits. A small snack before bedtime may help



DID YOU KNOW?

Light from electronic devices affects the brain's ability to release melatonin, a chemical that helps the body know when to go to sleep.

Medicines are more commonly used in school-aged children than in younger children, usually in combination with behavioral therapy. School teachers will also likely take a larger role in assisting the child at this age. So caregivers of school-aged children should have open communication with the child's teacher, school nurse, or other staff at the child's school.

There are many ways the school can assist children with ADHD. Some teachers have been trained in behavioral therapy and can use the same strategies you have used at home. The school can also provide special seating, assignments, and make test accommodations for children with ADHD.

Did You Remember?

A recommended approach to ADHD that combines medicine and behavioral therapy is called multimodal treatment.

Adolescence

Jose Luis Pelaez Inc/gettyimages.com

Adolescence is a time of change for all children. A change in ADHD symptoms during adolescence is expected. Adolescents with ADHD often will show less hyperactivity than in the early school-age years, but inattention and impulsiveness may worsen. Parent–child relationships may also suffer.

Some teenagers with ADHD may have gone undiagnosed during childhood and may begin to struggle during adolescence. Getting a proper diagnosis in a teenager can be hard for three main reasons:

1. The symptoms for diagnosis are focused on younger children and may not apply to adolescents.

2. Having symptoms before age 12 is part of the diagnostic criteria and it may be hard to remember when symptoms began.

3. Getting information from teachers and caregivers may be more challenging. It may be hard for teachers to observe ADHD symptoms because teenagers see many teachers each day for short periods of time. Parents of teenagers also may be less likely to notice symptoms because they are spending less time directly supervising a teenager compared with a younger child.

DID YOU KNOW?

Drivers with ADHD are more likely to have traffic violations and be at fault in traffic accidents. Proper treatment can help improve driving skills.

FACT 44

ADHD medicine continues to be effective in the teen years.

Disorders such as anxiety or depression may present during the adolescent years. Teenagers may also struggle to take their medicine as prescribed. They may feel their medicine is not working and therefore they want to stop taking it. Parents can talk to their teen's doctor about ways to encourage their teenager to continue taking his or her medicine. The doctor may also suggest an alternative medicine.

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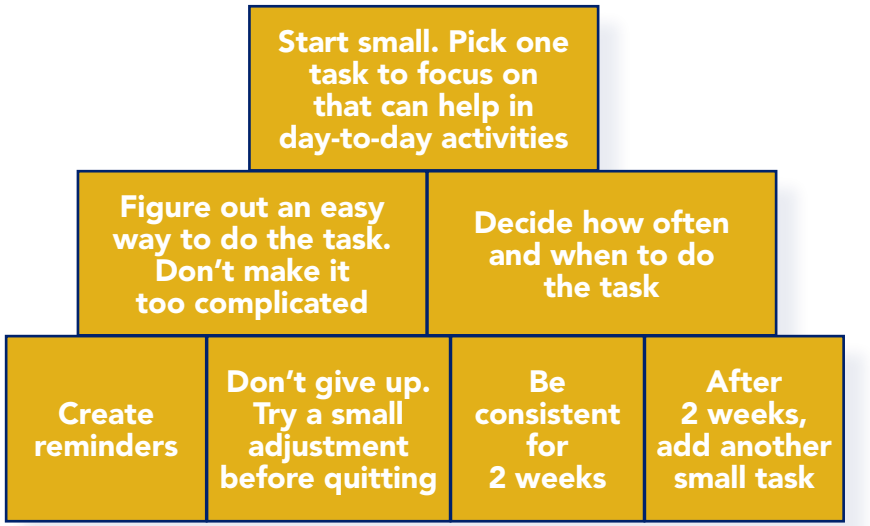
Adulthood

SIphotography/istock.com

Adults with ADHD experience many of the same symptoms as children and adolescents. There may be less hyperactivity because the adult has learned to manage it; however, they may still feel it. Restlessness, lack of focus, and disorganization are common in adults with ADHD.

People who are diagnosed with ADHD as adults may feel some relief knowing a medical condition is contributing to their behaviors. This is an opportunity to get help. All adults with ADHD should have structure in their lives and develop a routine for accomplishing daily tasks.

Here are some task management tips for people with ADHD



DID YOU KNOW?

Using day planners or apps can help you manage time, stay organized, and stick to responsibilities.

An estimated 10 million adults have ADHD.

FACT 45

STRATEGIES FOR INTERACTING WITH SCHOOLS ON BEHALF OF YOUR CHILD

Working with teachers

Open communication with a child's school is essential. Parents and caregivers will want to make sure the teacher and others at the school are prepared to assist their child with ADHD.

Teachers have different systems for managing behavior in the classroom. It is important to understand how a child's teacher manages classroom behavior. This information can be used to determine if this approach will work and can be discussed further with a teacher.

Children with ADHD typically benefit from a plan that includes rewards, praise for good behavior, one-on-one talks, and monitoring of visible moods and frustrations.

Daily report cards can be used to help teachers monitor and talk about a child's ability to meet their behavioral goals. Individual goals can be set for a child such as completing homework or following classroom rules. Incentives and rewards also can be used to help motivate children to reach those goals.

Sample Daily Report Card

	Monday	Tuesday	Wednesday	Thursday	Friday
Stayed in my area	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No
Hands to self	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No
Used kind words	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No
Complied with teacher directives	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No

Comments: _____

_____

_____

DID YOU KNOW?

Your child may qualify for additional educational support under federal law through the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act.

Classroom accommodations

Hero Images/ gettyimages.com

Many accommodations can be made to assist a child with ADHD in the classroom. Parents should ask about these opportunities; they may need to request specific accommodations they feel are important.

A list of classroom accommodations that may help students with ADHD can be found at www.understood.org. Here are a few examples:

Set Up	Organization	Tests or classwork
A child should sit close to the teacher and away from doors and windows	Encourage the child to use assignment notebooks and written schedules	Discuss shorter assignments, quizzes, or tests with the teacher. Some larger pieces of work may be broken into parts
Special seating that allows for movement may help them focus	Provide them with folders and supplies to keep their desk organized	Determine if the child needs extra time or a quieter space for work
	Consider color-coding materials for each subject	Discuss grading with the teacher. A student with ADHD may benefit from not being graded for neatness or being given credit for the work they complete rather than having points taken away for late or partial assignments

Strategies for the high school/ college years

High school and the college years are times of continual change. Coping, or helping a person during these stages to cope, is not easy. Less structure, more independence, and increasing responsibility can be stressful for anyone, especially someone with ADHD.

High school challenges

High school is a time of major growth academically. It is also a time to prepare for increased independence.

Certain skills have been identified as important for adolescents to be successful during this time. A high school student with ADHD, particularly if they are thinking about attending college, should:

- Be able to read and write without much help
- Be able to comprehend what is written in their textbooks and write an organized paper
- Have a system for note taking, assignments, and test preparation
- Learn to speak up appropriately for themselves
- Be aware of the resources they need and feel comfortable asking for help

Having ADHD can make it more difficult to navigate social situations and interact successfully with peers.

FACT 46

Keeping track of assignments, staying organized, and managing time is essential. Here, an "**ADHD coach**" may be helpful.

It is important that adolescents be aware of their own strengths and challenges. They should develop the ability to set goals while believing they can accomplish them as well as being familiar with how they learn best.

Emotional responses

It can be a struggle for teenagers with ADHD to control their emotions. Frustration, impatience, and excitability are common. Teenagers with ADHD need extra emotional support at home and at school. If a teenager is unable to control their emotions, parents should work with them on developing this skill. It may be helpful for teenagers with ADHD to be exposed to difficult situations while being coached through them. When done slowly, teenagers will gain more independence in this way.

DID YOU KNOW?

Career counseling can help young adults with ADHD find a job that fits their skills, interests, and strengths.

The college years

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The transition from high school to college is an exciting, but stressful time for teenagers and their parents. Choosing the college that best "fits" the adolescent with ADHD is critical. Parents and applying students should be open with the college about the condition and any affiliated learning issues. Colleges are not required to identify students with learning issues, so it is up to the parents to make these known.

On the other hand, colleges are expected to make reasonable accommodations for students with learning challenges. It will be important to select a college that has accommodations for students with ADHD. The school should ideally have a support group and ADHD specialists. Early contact with the office of disability at the college is key. They can help:

- Document needs for accommodations
- Find tutors
- Find study environments that minimize distractions

FACT 47

College students must learn to advocate for themselves to obtain the support they need for classroom success.

MOVING AWAY FROM HOME FOR THE FIRST TIME

Ariel Skelley/gettyimages.com

There are many things to consider before a child moves away to college. It is critical to have a plan for medical care: Will the child continue to see the same healthcare providers or will you need to search for new ones? If a new provider is necessary, it is very important to begin a search as soon as possible. **For example, some medicines prescribed for ADHD, stimulants in particular, are only able to be refilled in the state in which they are prescribed**. The prescription from a student's "home state" may not be fillable in a different state where they attend school. Additionally, whether or not students move out of state, they will need to find a new pharmacy closer to their new home. **They should be set up with the new pharmacy before it is time to refill their prescription**.

Transitioning students must also learn to take their medicine without parental reminders. They should develop systems that encourage adherence (for example, alarms or reminders on a smart phone).

Parents should consider carefully whether their child is ready to live independently before they leave home. The following questions may serve as a guide:

- Can the child "bounce back" when something doesn't go his or her way?
- Does the child know who to go to if he or she needs help?
- Does the child know how to ask for help?
- Is the child aware of all the self-care responsibilities including laundry, finances, and meal preparation?
- Does the child demonstrate self-control?

DID YOU KNOW?

Adults with ADHD are significantly less likely to have earned a college degree. This may be due to inattention, disorganization, inability to handle large amounts of work, difficulty following instructions, or making careless errors.

STRATEGIES FOR THE ADULT YEARS

As an adult, many of the treatment strategies that worked earlier in life will continue to help in the management of ADHD. If you are an adult with ADHD, there are other things you can do to make life easier, such as some of the following:

Exercise

Exercise can improve your concentration, motivation, memory, and mood. It can be as simple as a 30-minute walk most days of the week. You should choose an activity you like so you are more likely to stick with it!

Sleep

Many adults with ADHD have difficulty sleeping. Getting quality sleep will improve your attention, focus, and mood. Keeping the same sleep and wake times, removing televisions and other electronics from the bedroom, avoiding caffeine late in the day, and setting aside time to relax before bed can all be helpful. Additionally, you can talk with your doctor if you think your medicine might be impacting your sleep.

Diet

What a person with ADHD eats and how they eat are very important. If you find that you go hours without eating then grab something convenient and unhealthy, you should make a schedule for your meals. Do not go more than three hours without a meal or snack. Also, make sure to include healthy foods with protein and complex carbohydrates, but without a lot of sugar or caffeine. Remember to stay well hydrated through the day.

Relaxation

Consider techniques that will help you relax. Meditation and yoga may help improve your attention and focus and decrease impulsiveness, anxiety, and depression.

Home life

ADHD may make home life more difficult. Adults with ADHD often have difficulty maintaining relationships. They may be quick to lose their temper with loved ones. **Because parents with ADHD may have children with ADHD, this can further complicate life at home**.

Are you an adult with ADHD? Do you need help with home life? Consider:

- Marriage and family therapy. Therapy can help you and your family deal with conflict at home
- A behavior coach can help you organize your home or work, structure your day, prioritize daily tasks, and manage your money
- A professional organizer can help you declutter, develop organizational systems, and manage your time more efficiently

Combining medicine, professional help, and self-help skills can improve your life at home.

Social interactions

Problems socializing or making friends may continue into adulthood. ADHD symptoms such as irritability, inattention, or impulsiveness can contribute to difficulty in social interactions. Here again, adults with ADHD may find that a multimodal approach helps improve these issues.


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Improving knowledge of social skills has been shown to make social interaction easier. Reading a book focused on social skills and setting specific goals for social interactions may be beneficial.

Practicing social skills through role play with a trusted friend is a good way to receive feedback.

At the workplace

If you are an adult with ADHD, then managing your ADHD is critical for success at work. Uncontrolled ADHD may affect your ability to keep a job. It may result in tardiness or absences, errors, lack of dependability, or conflicts with coworkers. Treating your ADHD will help minimize these problems.

Should you tell your employer about your ADHD? This is a very personal decision and there is no right or wrong answer. The primary benefit of **disclosing** your ADHD is access to accommodations. These accommodations may help you focus on your tasks and be more productive.


fizkes/istock.com

FACT 48

One in three people with ADHD is unemployed at any given time.

There may be some disadvantages to disclosing your ADHD. Your employer may believe you are unable to do your job well or you are using your ADHD as an excuse for poor work. Some uninformed employers may not believe adult ADHD is a disability.

DID YOU KNOW?

You may be protected from discrimination and have access to accommodations in the workplace under the Americans with Disabilities Act.

Whether or not you tell your employer, you will want to treat your ADHD to minimize its impact on your work. There are also some specific tips that can be useful for your ADHD symptoms.

IF YOU'RE EASILY DISTRACTED

- Try to minimize distractions by closing the door to your office or selecting a desk in a low traffic area
- Organize your desk and minimize clutter
- Use a headset for phone calls
- Turn off alerts for email or text messages. Set aside time to check messages at regular intervals

IF YOU HAVE A SHORT ATTENTION SPAN

- Break your work into smaller pieces
- Schedule breaks
- Use an alarm to specify a period of time for a particular task

IF YOU HAVE MEMORY PROBLEMS

- Record or take notes during meetings
- Use planners to keep track of deadlines
- Put oral conversations in writing by following up with an email
- Set calendar alerts for meetings

IF YOU HAVE HYPERACTIVITY

- Take frequent breaks
- Move: A walk around the office, use of a balance ball, or any other activity may help
- Have face-to-face meetings with coworkers rather than emailing them

ADULT CHILDREN WITH ADHD RETURNING TO LIVE WITH THEIR PARENTS


Neustockimages/ istock.com

Adults with ADHD are more likely to live with their parents, or to move back after leaving home. Although a return home will have several benefits, including reduced total living expenses and assistance with household tasks, challenges can also arise.

Before returning home, it is important to conduct a family meeting. Everyone in the household should participate in decision making. Basic rules should be set and a household budget should be developed.

DID YOU KNOW?

Young adults generally are more likely to live with their parents than with a spouse or partner.

While an adult child is at home, families should start thinking about the long-term plan. Will they move out? If so, when? Having a goal in mind will help determine a plan. This plan would ideally include a focus on finances. Collecting "rent" to work toward financial independence may be a good idea. Enforcing household rules and setting consequences for breaking them will be important. Helping adult children at home to continue treatment as well as engaging in therapy may also be beneficial during this time.

FINDING HEALTHCARE PROVIDERS & SUPPORT ORGANIZATIONS

Finding an appropriate healthcare provider as well as support organizations and other resources for a person with ADHD is critical. But knowing where to start can be difficult. Other healthcare professionals, in addition to a doctor, usually are involved with the treatment of ADHD for both adults and children. These additional healthcare professionals may include psychiatrists, psychologists, nurse practitioners, and social workers.


shironosov/istock.com

Psychiatrists are medical doctors who focus on mental health conditions and behavior. Psychiatrists can diagnose, prescribe, and monitor medicines for treatment of ADHD as well as provide counseling. Some psychiatrists are trained specifically to treat children, adolescents, and families

Psychologists undergo extensive training in areas such as counseling, behavioral therapy, and psychological evaluation. Psychologists may or may not be able to prescribe medicine for ADHD, depending on where they practice

Psychiatric nurse practitioners are registered nurses with advanced degrees and specialized training. Depending on their license and certification, they may be able to diagnose and prescribe medicines for treatment of ADHD

Social workers are providers with an advanced degree in social work and can be licensed as clinical social workers. Social workers do not diagnose or prescribe medicines for ADHD, but rather focus on behavioral therapies and coping skills

Many organizations provide support for people with ADHD and their caregivers. Some also help parents connect with other parents who are caring for children with ADHD. A list of organizations that help support ADHD is included at the end of this section.

FACT 49

Some children with ADHD may have difficulties with speech and language development and may be referred to a speech therapist.

Finding the right healthcare provider for children & adults

If ADHD is suspected, the first step is to make an appointment with a primary care medical doctor. This may be a pediatrician for children or adolescents. For school-aged children and adolescents, discussions with a teacher about classroom behavior may also be helpful to see if they share your concerns and observations. Teachers are able to observe and interact with their students on a very regular basis so their input can be very valuable in understanding if ADHD is present.

Children and Adults with Attention-Deficit/Hyperactivity Disorder or **CHADD**, maintains a website that includes a directory for specialists and resources for ADHD (www.chadd.org). It allows people to search for professionals in their area who treat ADHD.

Studioclover/Dreamstime

Questions to ask a doctor about ADHD

There are a number of questions to ask a doctor when ADHD is first diagnosed. These questions can help you better understand the condition and whether a specialist may be needed.

If you are being diagnosed, or are involved in the diagnosis of a person being evaluated for ADHD, you should be prepared to answer questions your doctor might have for you about symptoms. You should answer these as accurately as possible.

Examples of questions to ask your doctor about ADHD include:

- What evaluations do they perform to be sure the symptoms are being caused by ADHD? Are there other conditions that could cause the same symptoms or behavior?
- Could another condition be present, in addition to ADHD?
- Have they treated many patients for ADHD? Have they treated adults with ADHD as well as children?

Doctors may ask that forms be filled out before coming to the appointment. A doctor may have forms for other people, too, such as teachers and family members.

Here are some sample questions a doctor might ask about behavior or symptoms:

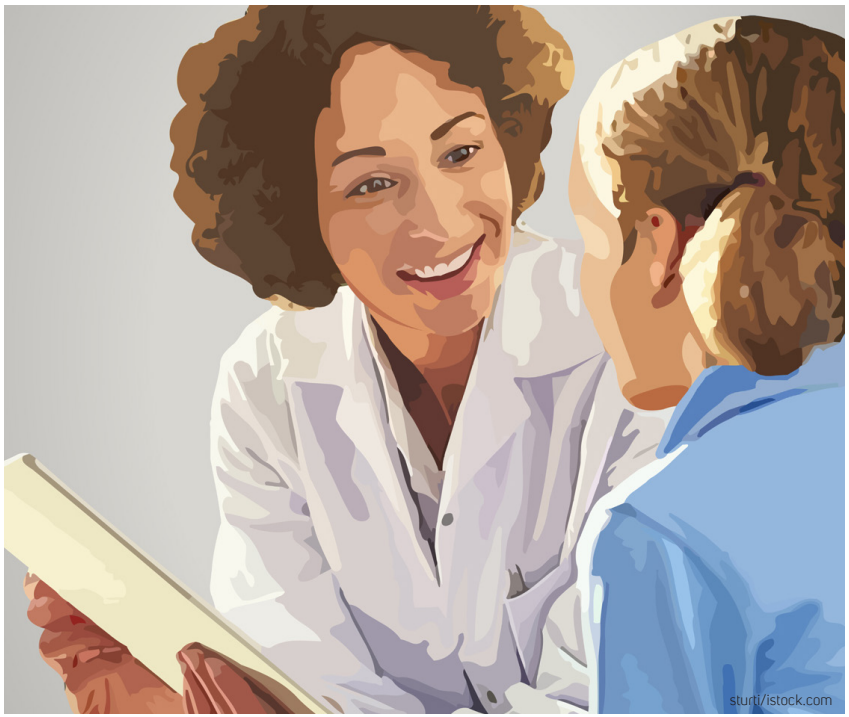
- How does the child interact with other children, at school or at play?
- How is the child doing in school? Is the child having trouble completing assignments or homework?
- What are the results of conversations with teachers? Have they noticed any behavior that is of concern?
- When did the symptoms start? Are they mild or severe?
- How long have the symptoms or behavior been happening? Are they getting worse?
- Are there certain situations or places where symptoms appear or become worse?
- Have there been any major life changes that may have caused stress?

Did You Remember?

Forms and checklists can be used to track the progress of a person with ADHD between doctor visits.

FACT 50

It is important to confirm insurance coverage before deciding on a specific healthcare specialist for ADHD treatment.



Information about medical history and a list of any medicines being taken is critical during the diagnosis phase. This includes prescription and nonprescription medicines, including herbs, vitamins, or supplements. Information about any caffeine or alcohol use, as well as any recreational drug use will need to be shared.

If ADHD is diagnosed, the doctor will talk about a management plan. Asking questions and writing down the answers about treatment options is important. Here are some sample questions to ask:

- What treatments are available for ADHD and which are recommended? Why?
- Are prescription medicines the best or only choice?
- If a prescription medicine is needed, how does it need to be taken? How quickly will it work?
- What are the side effects of medicines used for ADHD? Are there any permanent effects?
- Are there any foods to avoid, or is there a special diet to follow to help with symptoms?
- How often is it necessary to check back with the doctor? Are appointments needed every week? Every month?
- What about work or school? Can a plan be developed to help manage ADHD symptoms at these places?
- Is there written information on ADHD and its treatment that can be taken home for review and future reference?
- Is it necessary to see a specialist for treatment of ADHD and if so how is this done?

RESOURCES FOR ADHD

Online resources are available for parents, families, and adults with ADHD. Some of them can help find doctors or other healthcare providers who specialize in treatment of ADHD.

Katarzyna Bialasiewicz/Dreamstime.com

In addition to the following resources, healthcare providers and appropriate contacts at a child's school can suggest additional supportive ADHD resources.

Supernus website	www.MoreToADHD.com
American Academy of Child and Adolescent Psychiatry	www.aacap.org
American Academy of Pediatrics	www.aap.org
Healthychildren.org	https://www.healthychildren.org from the American Academy of Pediatrics
Center for Parent Information & Resources	www.parentcenterhub.org/
Children and Adults with Attention-Deficit/ Hyperactivity Disorder	www.chadd.org
Attention Deficit Disorder Association	www.add.org
Understood for Learning and Attention Issues	www.understood.org/en
National Alliance on Mental Illness	https://www.nami.org
ADDitude magazine	https://www.additudemag.com/
A.D.D. Warehouse	www.addwarehouse.com
ADHD Coaches Organization	www.adhdcoaches.org

People with ADHD are often stigmatized due to their condition. Their friends, coworkers, or acquaintances may not understand what ADHD is and the many ways it can affect people.

Removing this stigma is important, and advocacy and support groups work tirelessly to improve the understanding and acceptance of ADHD. Celebrities, too, use their status to speak candidly about their experiences living with ADHD.

You may be surprised to learn how many well-known people, both past and present, not only learned to live successfully with ADHD but also speak out about the condition.

SECTION 4

The FACES of ADHD

Simone Biles
Terry Bradshaw
Jim Carrey
Katherine Ellison
Adam Levine
Lisa Ling
Michael Phelps
Michelle Rodriguez
Babe Ruth
Channing Tatum
Brookley Wofford Topel
Will.i.am

Leonard Zhukovsky/shutterstock.com

Simone Biles

Gymnast, Olympian

Known for being one of America's top gymnasts, Simone has become a champion for people living with ADHD. When her medical information was publicly revealed without her knowledge, her response was, "Having ADHD and taking medicine for it is nothing to be ashamed of, nothing that I'm afraid to let people know."

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Terry Bradshaw

NFL quarterback, sports analyst

The Hall-of-Fame football player led the Pittsburgh Steelers to four Super Bowl Championships. Terry has struggled with ADHD and depression since childhood, when football became an outlet to help compensate for the difficulties he experienced in school.

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Jim Carrey

Comedian, actor, screenwriter

As a student, Jim would finish in-class assignments quickly, then started disrupting other students in the class. He has continued to receive treatment for ADHD with depression since childhood.

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Katherine Ellison

Journalist, author

The Pulitzer Prize winner was diagnosed, along with her son, with ADHD. Her book, *Buzz*, explains her experiences living with ADHD. Katherine reflects that as a child she was easily bored, and migrated to journalism for the fast-paced work environment. When she first started researching ADHD, Katherine was skeptical about whether the disorder was too easily used as an excuse, but today believes there is both over- and underdiagnosis, and that many children aren't getting the treatment they urgently need.

Adam Levine

Singer, songwriter

The vocalist of Maroon 5 fame was diagnosed with ADHD as a teenager. His parents helped him find therapy as a child, but his inattention has persisted into his adult years. Adam has noted that, "ADHD is not a bad thing" once you learn to harness the energy.

Lisa Ling

Journalist, author

Diagnosed with ADHD as an adult, Lisa recalls having a difficult time focusing as a child, which was reflected in her grades, and developing "test anxiety" as she got older. Her diagnosis has provided a sense of relief, as she looks back on her struggles with inattention as a child.

Michael Phelps

Swimmer, Olympian

The Olympic gold-winning swimmer was diagnosed with ADHD at 9 years of age. His mother, who taught middle school, began working with Michael and his school to provide the extra attention he needed. Swimming provided an outlet for his energy, and gave him an activity to focus on.

Michelle Rodriguez

TV personality

Michelle dropped out of high school, but later went back to receive her GED. A self-described "scatterbrain," she mentioned in an interview that she still has trouble focusing when she is alone. ADHD in girls is often associated with inattention without hyperactivity.

JStone/shutterstock.com

Babe Ruth

Baseball legend

As a child, George Herman "Babe" Ruth Jr. (1895–1948) ran wild on the streets of his hometown of Baltimore, fighting and causing trouble. His problematic behavior landed him in boarding school, where he was able to focus his hyperactive personality on sports. Historians now believe that Ruth probably had ADHD, which may have enhanced his ability to concentrate on baseball and hone his natural skill.

© Featureflash/ Dreamstime.com

Channing Tatum

Actor

The Hollywood A-lister has shared his experience with ADHD and dyslexia during his childhood. Channing credits his mother with providing important advice on how to learn.

Brainerd Dispatch, Mar 2, 2015

Brookley Wofford Topel

Artist, model, public relations specialist

Miss Minnesota United States 2015, Brookley Wofford Topel, is a national spokesperson for people with ADHD and other learning challenges including dyslexia. She was diagnosed with ADHD in second grade, after teachers suggested she be screened for autism despite an ability to read above her grade level. She uses a combination of medicine, exercise, and good nutrition to help manage her condition.

Will.i.am

Singer, songwriter

The Grammy award-winning performer was diagnosed with ADHD as a child, and credits his interest in music for helping him "keep his attention disorder in order." He speaks openly about his condition, and works with organizations that help children realize their potential.

GLOSSARY OF KEYWORDS & CONCEPTS

ADHD: Attention-deficit/hyperactivity disorder; a chronic disorder that makes it hard to pay attention or control impulsive behaviors

ADHD coach: An individual who can help a person with ADHD learn practical skills for setting goals and engaging in daily activities

adherence: Taking medication as prescribed

attention/alert network: Brain network that involves the frontal, parietal lobe, and thalamus, and includes both selective (preferential attention to a single interest) and sustained (ability to perform a continuous task over time attention)

basal ganglia: The region in the brain that regulates communication; a deficiency in this region can cause a short-circuit leading to impulsivity or inattention

brain stem: Located below the cortex, this region includes a collection of centers that act like routers moving information from one location to another to control movement, emotion, aggression, and behavior

cerebellum: Another region of the brain that controls balance, posture, and movement

CHADD: Children and Adults with Attention-Deficit hyperactivity Disorder; an organization that provides a directory of specialists and resources for ADHD

combined presentation: Consists of both inattentive and hyperactive-impulsive symptoms

Comorbid Complex ADHD: Core symptoms of ADHD plus at least one additional psychiatric disorder

Comorbidity: The presence of one or more chronic conditions or disorders occurring with a primary condition

conduct disorder: A repetitive and persistent disruptive behavior pattern in which rules are violated and aggression and violence are displayed toward other people

cortex: The outer surface of the brain, divided into lobes including the frontal lobe, parietal lobe, occipital lobe, and temporal lobe

depression: A type of mood disorder that causes persistent sadness or disinterest

disclosing: Discussing your diagnosis of ADHD with other people, particularly an employer

dopamine: A neurotransmitter in the brain that affects a person's mood, attention, actions, and motivation

drug diversion: Misuse of medicine, including sharing or selling it to other people

drug holidays: Times when a doctor may suggest taking a break from using a medicine, especially if the side effects are bothersome

DSM-5: A reference tool used to diagnose mental and behavioral conditions including ADHD; main symptoms used for diagnosis are inattention, hyperactivity, and impulsivity

eating disorder: A condition involving abnormal eating habits and related emotions and behaviors

executive function network: The ability to activate, organize, and manage tasks, activity, and memory to be able to understand and adjust behavior based on a person's understanding of short- and long-term consequences to different actions

frontal cortex: The region of the brain involved with the regulation of body movement, speech, intellect, and behavioral function

frontal lobe: Region of cortex at the front of the brain

frontal-subcortical-cerebellar network: Circuits that regulate the anticipated timing of events (and immediacy of a response) and interact with reward and attention networks through connections in the brain stem

heart block: Abnormal heart beat rhythm that occurs if the electrical signals are disrupted as they move through the heart

hyperactive-impulsive presentation: Symptoms are related to being too active or acting without thinking

hyperactivity: Overactive behaviors such as restlessness, impatience, and difficult sitting still

impulsivity: Tendency to act on a whim without consideration of the consequences

inattention: Difficulty paying attention

inattentive presentation: Symptoms relate to having a hard time paying attention

learning disorders: Neurologically based problems obtaining or using new information that may affect a person's ability to speak, read, write, or do math

lobes: The four regions of the outer surface of the brain: frontal, parietal, occipital, and temporal

mood disorder: Inconsistent or distorted emotional mood that can cause symptoms, such as irritability and excessive crying

MTA Study: A large trial that compared three different approaches to treating ADHD—medicine only, behavioral therapy, or a combination of both treatments; the results of the study showed that medicine only and/or combination therapy were the most effective for children with ADHD

multimodal treatment: Combination treatment for ADHD that consists of medicine and behavioral therapy

neurobehavioral: The relationship between the brain and behavior

neurodevelopmental: Development of brain regions that impact the function of the brain

nonstimulants: Prescribed medicines for ADHD that affect neurotransmitters without increasing dopamine levels; use of these medicines may take longer to achieve effects

norepinephrine: A neurotransmitter in the brain that affects a person's mood, attention, actions, and motivation

nucleus accumbens: Region of the brain that mediates behaviors, including reward and satisfaction

occipital lobe: A region at the back of the brain that receives and processes visual information

ODD: Oppositional defiant disorder is a childhood mental health disorder that includes symptoms of persistent anger and irritability

Orbitofrontal cortex: A prefrontal cortex region in the brain that is involved in emotional, motivational behaviors, and anticipation of reward

panic attacks: Sudden episodes of intense fear when there is no apparent cause

parent–child interaction therapy: Type of behavioral training for parents of children where parents are taught how to respond to the child's behavior in a positive way and to ignore disruptive or inappropriate behavior; this is followed by a coaching session where a therapist can help a parent with interactions with the child.

parietal cortex: Primary sensory area located behind the frontal cortex

parietal lobe: Located behind the frontal lobe

planned ignoring: A parenting technique by which a person does not respond to certain behaviors to prevent reinforcing them

positive reinforcement: Use of praise and rewards when tasks or goals have been achieved

prefrontal cortex: The cerebral cortex covering the front part of the frontal lobe; this brain region has been linked to personality expression, complex cognitive behavior, personality expression, decision making, and moderating social behavior

psychiatric nurse practitioner: A registered nurse with an advanced degree and specialized training in mental health conditions and behaviors depending on licensure, this nurse may be able to prescribe medicines for the treatment of ADHD

psychiatrist: A medical doctor who focuses on mental health conditions and behaviors, and can diagnose patients, and prescribe and monitor medicines for treatment of ADHD

psychologist: A provider who has extensive training in areas such as counseling, behavioral therapy, and psychological evaluation; depending on licensure, a psychologist may be able to prescribe medicines for treatment of ADHD

psychostimulants: Medicines most often used for the treatment of ADHD that relieve symptoms by adjusting the levels of norepinephrine and dopamine in the brain

rating scale: An evaluation tool that can be used for the initial diagnosis of ADHD, the assessment of co-existing conditions, and for monitoring treatment strategies

rebound symptom: A symptom that had been managed with medicine but reappears when the medicine wears off, is no longer taken, or the dose is lowered

reward network: An essential response to a behavior or activity that elicits positive interactive with beneficial situations (learning or activity) and avoidance of situations that are not beneficial

role play: Practice of social skills where a parent can coach a child through different social situations

Schedule II drugs: Prescription medicine that present a high risk for abuse or addiction according to the Federal Drug Enforcement Agency

self-medicating: To relieve symptoms using medicines without a prescription

side effect: Undesirable effect related to a medicine

Simple ADHD: Core symptoms of ADHD occur in the absence of other comorbid psychiatric conditions

social worker: provider with an advanced degree in social work who focuses on behavioral therapies and coping skills in helping people with ADHD

socioeconomic: Economic and social factors

stimulants: Prescribed medicines for ADHD that increase amounts of norepinephrine and dopamine in the brain that affect attention and behavior

substance abuse: Misuse of medicines for recreational and self-medicating purposes

supplemental motor cortex: Area of the cerebral cortex that is involved with movement

temporal cortex: Region of the brain involved with hearing, speech and language processing

temporal lobe: Region of the cortex below the parietal lobe

thalamus: A small region of the brain that relays motor and sensory signals to the cerebral cortex

tic: An uncontrollable, sudden, repetitive movement that is hard to control and may occur in people with ADHD

transdermal systems: A type of stimulant that is worn as a patch on the skin

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