

Complete Guide to ADHD

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Children with attention-deficit hyperactivity disorder (ADHD) find it unusually difficult to concentrate on tasks, to pay attention, to sit still, and to control impulsive behavior. This

ADHD guide offers parents the information you need to understand the behaviors associated with the attention disorder to help you make effective decisions for your child about symptoms, diagnosis and treatment.

Children with *attention-deficit hyperactivity disorder*

attention-deficit hyperactivity disorder

A psychiatric syndrome that includes difficulties with attention and organization of behavior. Symptoms may include: inattention, distractability, impulsivity, hyperactivity, excessive fidgeting and poor organizational skills, as well as frustration and irritability when the child or adult cannot meet expected performance standards. ADHD is sometimes referred to as ADD (attention-deficit disorder) but ADD is an older term.

(ADHD) find it unusually difficult to concentrate on tasks, to pay attention, to sit still, and to control impulsive behavior. This guide offers parents the information you need to understand the behaviors associated with the disorder and make effective decisions for your child about symptoms, *diagnosis*,

diagnosis

A specific set of signs and symptoms that together define a disorder. For psychiatric disorders, the criteria are based on standards established in the Diagnostic and Statistical Manual (DSM).

and treatment.

What Is ADHD?

Attention-deficit hyperactivity disorder, or *ADHD*,

ADHD

see attention-deficit hyperactivity disorder

is a condition that makes it unusually difficult for children to concentrate, to pay attention, to sit still, to follow directions, and to control impulsive behavior. While all young children are at times distractible, restless, and oblivious to parents' and teachers' instructions, kids with ADHD behave this way much more often than other children their age. And their inability to settle down, focus, and follow through on tasks in age-appropriate ways makes it very hard for them to do what's

expected of them at school. It can also lead to conflict at home and difficulty getting along with peers.

ADHD Symptoms

Symptoms of ADHD are divided into two groups: **inattentive behaviors** and **hyperactive and impulsive behaviors**.

Inattentive symptoms of ADHD:

- Makes careless mistakes
- Is easily distracted
- Doesn't seem to be listening when spoken to directly
- Has difficulty following instructions
- Has trouble organizing
- Avoids or dislikes sustained effort
- Is forgetful, always losing things

Hyperactive or impulsive symptoms of ADHD:

- Fidgeting or squirming, trouble staying in one place or waiting his turn
- Excessive running and climbing
- Trouble playing quietly
- Extreme impatience
- Always seems to be “on the go” or “driven by a motor”
- Excessive talking or interrupting, blurting out answers

Some children exhibit only the first group ADHD of symptoms, and some exhibit only the latter. But the majority of those with an ADHD diagnosis have a combination of both, which can make it very difficult for them to function in school, and in other activities, and can create a lot of conflict at home.

How Are ADD and ADHD Different?

ADD, or attention-deficit disorder, is an older term for the disorder we now call ADHD, or attention-deficit hyperactivity disorder. It was called *ADD*

ADD

see attention-deficit hyperactivity disorder

up until 1987, when the word “hyperactivity” was added. Some people still use the old term, ADD, out of habit, or because it's a more familiar term than ADHD. Some use it to refer to kids with ADHD who aren't hyperactive.

Can a Child Who's Not Hyperactive Have ADHD?

Yes. Kids who have trouble focusing but are not unusually restless or impulsive have a more inattentive type ADHD. They tend to be diagnosed later because they are less prone to disruptive or problematic behavior that comes to the attention of teachers and parents. But kids who have inattentive symptoms may start to struggle in the middle of elementary school, when it becomes increasingly difficult for them to keep up.

Why Can Kids With ADHD Concentrate on Some Things? What Is ADHD Hyperfocus?

While ADHD is called an attention *deficit* disorder, experts say what's really disordered is the child's ability to *control and direct* what he's paying attention to. So many kids with ADHD are perfectly capable of intense focus on things that are very exciting to them, like video games, but they can't maintain that kind of focus on things that aren't immediately rewarding, like schoolwork or putting on their shoes or going to bed.

That intense concentration, sometimes called *hyperfocus*, is also the reason kids with ADHD often get upset when asked to stop doing something they are engaged in, like a favorite activity at school or playing a video game. They have what experts call an inability to "attention switch," which can cause a lot of conflicts with adults.

And speaking of video games: Because they are constantly stimulating and rewarding, experts say they can induce a kind of trance state in a child who has trouble regulating her attention. In that case, it's less a matter of hyperfocus than what one calls "screen suck."

What Is Executive Functioning?

Executive functions are the self-regulating skills that we all use to accomplish tasks, from getting dressed to doing homework. They include:

- Planning
- Organizing time and materials
- Making decisions
- Shifting from one situation to another
- Controlling emotions
- Learning from past mistakes

Most kids with ADHD have deficits in some executive functions, though not all children with executive function issues have ADHD.

Does ADHD Affect Kids Outside of School?

Yes. Their inattention and impulsivity also affects their friendships, extra-curricular activities, and family life. They may have trouble making and keeping friends because they interrupt constantly, and are prone to blowing up when they don't get their way. It's not uncommon for children with severe ADHD to be blackballed from playdates because they can't be counted on to behave. Kids with ADHD may have trouble playing on teams because they find it hard to focus and follow the rules.

At home, they may find themselves on a collision course with parents and siblings because they don't follow instruction, are impulsive, and melt down when they are asked to transition from some activity they enjoy to mealtime, homework time, or bedtime.

By the time kids with ADHD reach *adolescence*,

adolescence

Generally, the period between puberty and legal adulthood. By some standards this includes the teenaged years, from 13 to 19.

their impulsivity can be dangerous, making them prone to car accidents, unsafe sex, and other risky behaviors.

Why Are Kids With ADHD Often Defiant or Demonstrate Disruptive Behavior?

Defiance and emotional outbursts are very common in kids with ADHD, though they are not, themselves, symptoms of ADHD.

Kids who have ADHD tend to become defiant when they are expected to do things that are hard for them, especially when it means stopping something that's pleasurable—like playing a video game. So things like homework, going to bed, getting dressed, and coming to dinner can become battlegrounds. These situations are difficult for them to tolerate because of inherent deficits in paying attention, tolerating a boring situation, reining in impulses, transitioning from a fun activity, and controlling their activity level. Since these situations are really challenging for them, they may try to avoid them. Unfortunately when it comes to ADHD parenting, the avoidance strategies that these kids typically use are disruptive behavior, tantrums, arguing, defiance, and power struggles.

Can You Grow Out of ADHD?

ADHD symptoms change as children get older, and it's estimated that about a third of children who are diagnosed with the attention-deficit hyperactivity disorder will no longer meet the criteria by the time they reach young adulthood.

In general, hyperactivity declines as kids move through elementary school, and inattention becomes the primary problem for them as the schoolwork they are expected to do becomes more demanding and their parents and teachers are not so closely supervising their activities. In adolescence, impulsivity also becomes a big concern, as it leads to car accidents, unsafe sex, and other risky behavior.

Children who are most likely to have ADHD that continues into adulthood are those whose symptoms are very severe in childhood, and those who also have another *psychiatric disorder*,

psychiatric disorder

A condition of abnormal impairment to a person's cognitive, behavioral and emotional functioning.

like depression or anxiety.

ADHD Diagnosis

When is ADHD diagnosed?

Because the symptoms of ADHD can also be the result of other issues, such as anxiety, depression, or trauma, a professional diagnosing your child should carefully rule out other possible reasons for his behavior.

A child should receive an ADHD diagnosis only if he exhibits a variety of inattentive or impulsive behaviors

- At a level that is abnormal for children his age
- Over an extended period
- In more than one setting—both at home and at school, for instance.
- These behaviors must also be interfering significantly with schoolwork or social interaction.

How is an ADHD diagnosis done?

To make an accurate diagnosis, a clinician should collect information from several people who have observed your child, including you, other caregivers, and teachers.

Parents and teachers should be asked to fill out a rating scale, such as the SNAP, the Child Behavior Checklist, or Connor's Checklist, to capture an accurate assessment of the frequency of symptoms over a period of time. A child may be given a test called a Continuous Performance Test, which rates her ability to complete a repetitive task over a period of time and can give a more complex picture of her ADHD symptoms.

A child should not be diagnosed with ADHD just based on a parent's or teacher's report that she is overly active or distracted.

Who can diagnose ADHD?

ADHD can be diagnosed by any doctor or mental health professional, including:

- Pediatricians
- Psychiatrists
- Clinical psychologists
- Social workers

Many school psychologists are also qualified to diagnose ADHD, but in most cases they're not authorized by their school districts to do so. Instead, school psychologists will often help identify that a child is showing symptoms of ADHD, determine if their symptoms hinder their school functioning, and make recommendations for needed academic supports. They can also often refer families to an outside mental health professional for the diagnosis.

In the majority of cases, only medical doctors like psychiatrists can prescribe medication to treat ADHD. (Some states allow psychologists to prescribe, and nurse practitioners and physician's assistants often can, as well.)

The overwhelming majority of ADHD diagnoses are made by pediatricians, though parents should be aware that many pediatricians don't have advanced training in psychiatric disorders, and an ADHD diagnosis should not be made in a quick office visit, based solely on a report that a child is having trouble concentrating in school. Inattention can be caused by other things, and giving a child ADHD medication won't address his problems if he doesn't have ADHD.

ADHD Medication Treatment

What is the most effective ADHD treatment?

Research shows that a combined approach of medication and *behavioral therapy*

behavioral therapy

A form of treatment that focuses directly on reducing or managing problematic behaviors without particular attention to thoughts, events or circumstances that prompted the behaviors.

is the most effective treatment.

For moderate to severe cases of ADHD the first line of treatment is usually medication. ADHD medications called *psychostimulants*,

psychostimulants

A class of medications that improve attention and organization while decreasing impulsivity. Medications include methylphenidate (Ritalin and others) and amphetamine (Adderall and others).

which increase the amount of certain chemicals in the brain, help children focus and curb impulsivity and hyperactivity.

Behavioral therapies help kids rein in impulsive behavior and be better organized.

What are the kinds of stimulant medications for ADHD?

If a child has ADHD, studies show there's an over 80% chance that he will respond to stimulant medication with a significant reduction in symptoms.

There are two main classes of stimulant medications:

- **Methylphenidate-based medications**
Ritalin, Methylin, Concerta, Metadate, Daytrana Patch
- **Dextroamphetamine-based medications**
Adderall, Vyvanse, Dexedrine

Of the children who respond to stimulants, half will respond equally well to both groups of medications, and the other half will respond better to one or the other. There are many different release formulas for stimulant medications, which make them effective for different periods of time.

- **Immediate-release formulas**
are effective for about 4 hours
- **Extended-release formulas**
last as long as 14 hours.

Within the extended-release group, medications vary in the doses they deliver morning and afternoon. Some deliver 50 percent in the first half of the day and 50 percent in the second; others deliver just 30 percent in the first half and 70 percent in the second.

Finding the right dose

Since different children metabolize medication in different ways, the goal is to find the formula that delivers an effective dose over a desirable period of time for your child. Getting the right dosage for a particular child takes several weeks of trial. The clinician normally increases the dosage gradually until it becomes effective. If your child experiences undesirable side effects, it may mean that the dosage is too high, or the medication isn't right for her.

It's important to note that some children respond differently to the two different stimulants used in these medications—methylphenidate and dextroamphetamine. Changing from one to the other, or even to a different release formula of the same basic medicine, can help reduce or eliminate side effects.

Once an effective dosage is established, your child should be monitored periodically to make sure it's still meeting her needs as she grows.

Side effects of stimulant medications

Stimulant medications can be very effective in reducing symptoms of ADHD, but some kids do experience adverse side effects. They include:

Sleep issues

If medication is interfering with a child's sleep, it's because the medication is still active at bedtime.

If he's taking a short-acting formula, it may mean that he is taking a second or third dose too late in the day. If he's taking medication that lasts 12 or 14 hours, it may help to try one that's not quite as long-acting. Sleep issues caused by the medication tend to get better over time, so it's worth giving kids four to six weeks to see if they adjust. Trouble going to sleep may also be caused by kids being too stimulated at bedtime.

Eating issues

Extended-release medicines, which peak about four hours after they're taken, cause some children to lose their appetite at lunchtime. Some kids can compensate for this by eating a good breakfast before the medication kicks in, and eating well at the end of the day when the medicine is wearing off, at dinner and again before bedtime. Another option is to switch to the immediate-release tablets, which will wear off by lunch.

Growth issues

Some kids, particularly boys, grow more slowly when they're taking stimulant medication, especially in the first year. But studies show that by the second and third year they catch up. And kids who take weekend breaks and summer vacations from the medication don't show the slow-down in growth.

Nausea and headaches

These problems tend to dissipate within a few weeks of beginning medication, and can be minimized by taking the medication with food, and in some cases by changing the dosage or schedule.

Rebound

In some cases, after the medication wears off a child becomes irritable and aggressive. We call this "rebound" and it means the medication is leaving the body too quickly. One way to avoid rebound, if it's a problem, is by adding a smaller dose a half hour before it usually happens, to ease off the medication more gradually. Sometimes, rebound can be a sign that the clinician hasn't got the right dose yet, or that a different medicine should be tried. Lastly, when a child rebounds, it's important to consider whether there might be something else going on, like an underlying anxiety or mood issue that comes into play when she comes off her ADHD medicine.

Tics

Some children who take stimulant medication develop tics. When that happens, the first thing your doctor might want to do is try a different stimulant, to see if another medication will work without the tics. If that doesn't work, the doctor may try a non-stimulant medication, which affects the brain in a different way.

Mood changes

When a stimulant dose is too high for a child he may begin to look sedated or zombie-like, or tearful and irritable. If this happens the dose needs to be reduced. But there is also a small subset of kids with ADHD who seem to get moody and sad or irritable when they take stimulant medications, even at the best possible dose. It usually happens right away, as soon as they start taking the medication, and goes away immediately when they stop taking it. If this happens, your doctor can try switching to a different stimulant, or a non-stimulant medication.

Are there non-stimulant medications for ADHD?

There are two types of medications that aren't stimulants that can help alleviate symptoms of ADHD. They are useful for kids who don't respond to stimulant medications, or who experience adverse side effects from them.

- **Atomoxetine** (sold as Strattera) is in a class of drugs called norepinephrine reuptake inhibitors.

reuptake inhibitors

Medications that increase the supply of neurotransmitters in the brain by blocking their re-absorption and rapid destruction.

Norepinephrine is a natural substance in the brain that is needed to control behavior.

- **Clonidine** (Catapres, Nexicon) **and guanfacine** (Tenex) are called alpha-adrenergic agonists.

These medications were developed to lower high blood pressure, but at the doses given to kids for ADHD they rarely affect blood pressure. Both clonidine and guanfacine come in a 24-hour-release version (Kapvay and Intuniv), and they are sometimes used to treat tics.

Finally, omega fatty acids can also be helpful for ADHD, though not as helpful as stimulants or these other medications.

Should children stop taking ADHD medication during holidays and the summer?

Since children with ADHD don't need to perform academically during the summer or on extended holidays, parents sometimes seize the opportunity to take kids off

their regular medication regimen, especially if they are experiencing side effects. Other parents avoid an interruption, fearing that their children's behavioral problems will rebound.

One reason to stay with treatment year-round is that ADHD doesn't only affect a child's performance in school. During the summer, children still have to get along with family and friends and function effectively in group activities like sports and camp.

However, if you are concerned that taking a stimulant medication may be slowing your child's growth, a summer break can allow him to catch up. And if you are concerned that he is underweight due to suppressed appetite, a summer without medication can help him put on some pounds.

For more on the pros and cons of a drug holiday, [click here](#).

Behavioral Treatment for ADHD

What are the behavioral treatments for ADHD?

Behavior therapies do not eliminate the core symptoms of ADHD, but they can be very helpful in teaching children to manage them better. For example, children who have trouble finishing things and staying organized can learn techniques for completing tasks, keeping track of assignments, and getting their schoolwork done.

There's also a kind of behavior therapy for ADHD called **parent training** that can help reduce behavior problems that stem from ADHD in children. Parent-child interaction therapy and other forms of parent training teach parents how to work with their kids to cultivate good behaviors while minimizing impulsive or inattentive ones. Stimulated by more positive reinforcement, kids who have been out of control can learn to rein in their behavior and enjoy more rewarding relationships with parents and teachers.

As children get older, they often begin working more one-on-one with clinicians to strengthen their organizational skills and develop effective behavioral plans.

When a child is old enough, **cognitive behavioral therapy** can help teach her to control her behaviors by understanding how her thoughts and feelings influence them.

For more on behavioral therapy for kids with ADHD [click here](#).

What can we do to help kids strengthen executive functions?

To bolster kids with weak skills in these areas, learning specialists teach a mix of specific strategies and alternative learning styles that complement or enhance a child's particular abilities.

With elementary school children, the educational specialist usually works with parents and kids together, to establish routines and tools to use to get work done successfully and with minimal conflict. For instance:

Checklists can be useful for anything from getting out of the house on time in the morning to doing homework after school to the bedtime routine. Since the steps necessary for completing a task often aren't obvious to kids with ADHD, defining them clearly ahead of time, and posting them prominently, makes a task less daunting and more achievable.

Assigning a time limit for each step, particularly if it is a bigger, longer-term project, helps kids manage their time and avoid underestimating how long it will take to do something.

Using a planner is essential for kids with ADHD who struggle to remember things like homework assignments.

A rewards chart at home, as well as at school, can help motivate kids who are easily distracted and struggle to acquire new skills.

For more information on adolescents with ADHD, [click here](#).

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