

ADHD

Parents Medication Guide



Attention-Deficit/Hyperactivity Disorder

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Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurobehavioral condition characterized by excessive restlessness, inattention, distraction, and impulsivity. It is usually first identified when children are school-aged, although it also can be diagnosed in people of all age groups. In an average classroom of 30 children, research suggests that at least one will have ADHD.¹

High activity levels and short attention spans are a normal part of childhood for many children, but for those with ADHD, hyperactivity and inattentiveness are excessive and interfere with daily functioning. Some children with ADHD only have problems with attention; other children only have issues with hyperactivity and impulsivity; some children have problems with both. Over time, children with ADHD tend to shed some of the overactivity and impulsivity, but they often continue to have significant problems with inattention, distraction, and organization.



ADHD can interfere with a child's ability to perform in school and capacity to develop and maintain social (peer) relationships. ADHD can increase a child's risk of dropping out of school or having disciplinary problems. ADHD also is associated with an increased risk of having problems with hazardous driving, cigarette smoking, and substance abuse.

Effective treatments are available to help manage the inattention, hyperactivity, and impulsiveness symptoms of ADHD and can improve a person's ability to function at home, at school, and in other places.

This medication guide is intended to help parents, patients, and family members better understand the treatments used to care for children with ADHD.

Before treatment can begin, however, each child must have a careful review of his or her medical history, and a physical examination should be conducted. ADHD symptoms should be assessed by a health care professional qualified to evaluate children with ADHD. The professional treating your child for ADHD should be trained to diagnose and treat ADHD. They also should have a thorough understanding of normal child development (such as pediatricians, developmental pediatricians, child and adolescent psychiatrists, and pediatric neurologists). Treatment may include medication, behavioral therapy, or a combination of the two.

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How do I find out if my child has ADHD?

Because there is no brain imaging scan or blood test to diagnose ADHD, it is important that a health care professional specifically trained to diagnose and treat ADHD evaluate your child's behavior. Clinicians, such as pediatricians and child and adolescent psychiatrists, will be able to tell whether your child's behaviors are symptoms of ADHD or if he or she is just unusually active or immature.

Most cases of ADHD are first diagnosed in the early school years. Children who are diagnosed with ADHD have symptoms that impair their ability to function as well as other children the same age. These symptoms must last at least 6 months before a child can be diagnosed with ADHD.

There are three subtypes of ADHD: primarily inattentive, primarily hyperactive/impulsive, and that with significant symptoms of both (called combined subtype).

Boys diagnosed with ADHD outnumber girls with the condition by about three to one. Some doctors think that just as many girls have ADHD as boys, but they are not diagnosed as often because they are less disruptive and because their symptoms may not become unmanageable until they are older. For instance, girls sometimes show their ADHD in less troublemaking ways, such as being inattentive. Now that more health care professionals are aware of the unique ways ADHD affects girls and boys, more girls are being diagnosed and receiving treatment.⁵

"Before I was diagnosed, a lot of my time was spent coping with my ADHD symptoms."

—an adult with ADHD

Some parents worry because more children are being diagnosed with ADHD now than in the past. Research indicates that the increase is largely due to enhanced awareness and improved detection of the condition—including diagnosing children who may have less severe forms of ADHD. Now that more people know about ADHD and its symptoms, younger children, adolescents, girls, and adults with this condition are more likely to be identified and treated.

Despite the rise in ADHD diagnoses and the fear that some children are still being incorrectly identified as having ADHD, underdiagnosis remains a problem. There are still many children with ADHD (almost half) who are not diagnosed and do not receive treatment.⁶

What types of treatments are effective?

To help families make important decisions about treatment, the National Institute of Mental Health (NIMH) conducted the most in-depth study ever carried out for evaluating ADHD treatments. This study is called the Multimodal Treatment Study of Children with ADHD (or the MTA). Data from this study showed that methylphenidate (a commonly used stimulant medication for ADHD) is effective in treating the symptoms of ADHD, either alone or in

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there is no ADHD medication that will cure this condition. Fortunately, the majority of children with ADHD can improve significantly with a combination of medication and behavioral treatment.³

Research is ongoing to learn more about the way ADHD affects brain function and how to best treat the condition. Other research is looking at the long-term outcomes for people with ADHD.

Choices in Medication

What types of medication are available?

ADHD medications are grouped into two major categories: stimulant and non-stimulant.

Stimulant medications, such as methylphenidate and amphetamines, are highly effective treatments for ADHD and have been available for decades. Amphetamines have been prescribed for more than 70 years; methylphenidate for more than 50 years, and both types of medication have been very well studied. Evidence shows that stimulants are quite safe when prescribed to healthy patients and used under medical supervision.

The only FDA-approved non-stimulant medication, atomoxetine (Strattera), also has been shown to be an effective treatment for ADHD. Some parents prefer the non-stimulant atomoxetine (Strattera) because of their concerns about stimulant medication. Also, atomoxetine (Strattera) may be a good alternative for children who do not respond well to stimulant medication or have other conditions along with their ADHD.

Deciding which ADHD medication is right for your child takes time, because doctors often need to try more than one medication to find the one that works best.

Some ADHD medications might not be right for your child because of their side effects. Both stimulant and non-stimulant medications have side effects. A medication's side effects usually can be managed by adjusting the dose, changing the time it is administered, or switching medications.

Parents can help their child's doctor find the correct medication and dosage by keeping a medication diary or log book to track how well their child is doing and what side effects he or she may be experiencing.

If your child does not do well on any of the usual treatments for ADHD, some medications that have not been approved by the FDA for the treatment of ADHD may be helpful. However, these medications are usually only prescribed after first-line ADHD medications and behavioral treatment have already been tried.³

Finding the correct ADHD medication and dose takes time. If your child's symptoms are not better after being on a full therapeutic dose of a particular ADHD medication for a week or more, the prescribing doctor may consider trying another medication or adjusting the dose.

doctor about all of the over-the-counter (OTC) and prescription medications, herbal supplements, and vitamins your child is taking. Your child's prescribing doctor will let you know which medicines are okay to take while on ADHD medication, or you can ask the pharmacist about drug interactions before purchasing a non-prescription medication, supplement, or vitamin.

How do I know the medication is working?

With stimulant medication, parents and teachers should see some beneficial effects within 30 to 90 minutes—depending on the dose and formulation used. However, if the dose of stimulant medication is too low, your child's symptoms may not be affected at all.

Some beneficial effects of the non-stimulant medication atomoxetine (Strattera) might be noticed within the first week of taking medication. However, it can take several weeks for the non-stimulant medication atomoxetine (Strattera) to reach its full effect—even if the dosage is correct.

When ADHD medication is working, many of the ADHD symptoms go away. It is not uncommon, though, for some symptoms to linger. Behavioral treatments may help with the remaining symptoms.

While it may take time to find an effective medication and dosage, ADHD medications do work. In fact, up to 90 percent of children with ADHD will find at least one medication or a combination of medications that works well for them.¹⁰

Are there times when my child can take a break from medication?

In the past, doctors often recommended that children take a break from their ADHD medication after school, on weekends, and during the summer. Now, many doctors recommend that children stay on their ADHD medication full-time to get the benefits at home and at play. This can be especially true for teens who may benefit from ADHD medication outside of school to help make decisions about cigarette smoking, substance use, and risky behavior, as well as help with completing their homework and paying attention while driving.¹¹ However, some breaks from medication or reducing the medication's dose may be considered for less demanding times or if your child has troublesome side effects.

How will ADHD medication make my child feel?

For most children, ADHD medication will make them feel calmer and more able to focus and concentrate. Some of these changes may go unnoticed by your child—although parents and teachers should notice positive behavioral changes if the medication is working properly. ADHD medication should not

"My child is happier now she's on medication."

—a parent of a child with ADHD

Stimulant Medication & Addiction

Is there a risk my child may become addicted to stimulant medication?

Some parents worry that stimulant medication may make their child susceptible to addiction. This is a common misconception about ADHD medication. According to the National Institute on Drug Abuse (NIDA), children who take medication to treat their ADHD are less likely to have problems with substance abuse than children with ADHD who don't receive treatment.¹²

If taken appropriately, ADHD stimulant medications are not addictive.

While few people who are prescribed ADHD medications abuse their medication, giving or selling stimulant medication to others remains a concern. Because of the known risk of abuse with these types of medications, the Drug Enforcement Administration (DEA) has classified stimulants as medications that require stricter control. These are referred to as Schedule II or controlled medications.

The children and adolescents who misuse stimulant medication often do so to "get high" or to improve school performance ("crash all night"). To ensure these medications are used correctly, parents and guardians should make sure they are kept in a secure place, and their use should be monitored. Parents also must inform the child's doctor if medication is missing or being taken inappropriately. If misuse is a concern, medication should be dispensed by a parent. If medication is taken during school hours, most school jurisdictions require that the medication be given by school personnel.

Side Effects & ADHD Medication

What are the most common side effects?

Most children treated with ADHD medication have some side effects. Some of the most common and predictable side effects from stimulant medication are reduced appetite, weight loss, problems sleeping, headaches, stomach pain, and irritability. These side effects usually get better within the first couple of months of treatment.

The non-stimulant atomoxetine (Strattera) also can cause nausea, reduced appetite, and weight loss. Some children complain of drowsiness or mild irritability during the day while taking this medication; however, these side effects usually go away after the first month of treatment.

Side effects usually are not dangerous, but they should *all* be reported to your child's doctor—especially if they cause discomfort or interfere with your child's everyday activities. Side effects often can be reduced by switching medications, using another form of the medication, adjusting the dose, or changing the time the medication is taken.

When to Call the Doctor Immediately

- If your child is feeling faint or dizzy, complains of unusual heartbeats (such as rapid or skipped beats), chest pains, or shortness of breath.
- If your child becomes irritable, begins having hallucinations, seems depressed, or has voices and delusions.
- If your child complains of itching, right upper belly pain, or unexplained flu-like symptoms or if he or she has dark urine or yellow eyes or skin.

treatment as well. Also, patients with a history of drug abuse may be at increased risk of a relapse or misusing their medication if taking stimulant medication. The role of stimulants in the treatment of adolescents with ADHD and substance abuse problems remains unclear.

Liver Problems: There have been rare cases reported of the non-stimulant atomoxetine (Strattera) causing potentially serious liver problems. Signs to watch for are itching, right upper belly pain, dark urine, yellow skin or eyes, and unexplained flu-like symptoms.

To find out more about the FDA's warnings regarding cardiac risk and psychiatric side effects of ADHD medications, [click here.](#)

Do I need to monitor my child's appetite, weight, and height?

Parents are in the best position to monitor their child's well-being—including mental and physical health.

As with any disorder, treatments and medication may have side effects. Some of the things that are important to watch when your child is on ADHD medication include changes in appetite and weight. Your child's growth rate also should be monitored.

Monitoring weight and height is primarily the doctor's responsibility, but it is helpful for parents to pay attention as well. The effect of ADHD treatment on growth has been studied for many years. Recent research shows that stimulant medication may be associated with a small reduction in growth (primarily weight related), at least during the first 1 to 3 years of treatment. However, most studies show that any reduction in growth rate is often temporary and unrelated to the child's ultimate height.

<http://www.fda.gov/bbs/topics/NEWS/2007/NEW01568.html>

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Behavioral Rebound: Some children taking stimulant medication may seem more irritable and have an increase in ADHD symptoms in the afternoon or evening. This is called “rebounding” by some doctors and may be caused by the medication wearing off. To remedy this, your child’s doctor may recommend trying a medication that lasts longer or taking a small dose of immediate-release stimulant later in the day.⁹

Other Side Effects: If you have questions or concerns about these or other side effects, contact your child’s doctor.

School & the Child with ADHD

How can the school help my child with ADHD?

Schools can work with families and doctors to help children with ADHD in school. Open communication between parents and school staff can be the key to a child’s success. Teachers often are the first to notice ADHD-like behaviors and can provide parents, guardians, and doctors with information that may help with diagnosis and treatment. Also, teachers and parents can work together to solve problems and plan ways to support a child’s learning at home as well as at school. For example, teachers will often use specific instructional and behavioral strategies in the classroom to help students with ADHD.



Students whose ADHD impairs their ability to learn may qualify for special education under the Individuals with Disabilities Act (IDEA) or for a Section 504¹⁵ plan under the Rehabilitation Act of 1973. Special education and 504 plans provide assistance to students with disabilities and are designed to meet their unique learning and behavioral needs. Children with ADHD are eligible for special education in the “Other Health Impairment” disability category under IDEA. Children who do not qualify for special education may still be eligible for a 504 plan.

Public schools are required to evaluate students and provide free appropriate public education (FAPE)¹⁶ to all students with disabilities. Families also can request that their child be tested to help decide if he or she can qualify for educational services. However, parents and guardians must give written permission before a school can provide testing or services to a child. Testing and services are confidential and are provided through the public school system at no cost to the family.

“Finding out that our child had ADHD answered a lot of questions about why she wasn’t performing better at school.”

—a parent of a child with ADHD

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Disorders that Can Accompany ADHD

What are some of the more common disorders that can accompany ADHD?

Research shows that two-thirds of children diagnosed with ADHD have at least one additional mental-health or learning disorder.

To ensure an accurate diagnosis, your child's doctor will look for other conditions that show the same types of symptoms as ADHD. The doctor may find that your child has ADHD, another condition, or ADHD *and* another condition. Having more than one condition is called having coexisting (also called comorbid) conditions.

Coexisting conditions can make diagnosing and treating ADHD more difficult. They also create more challenges for a child to overcome, so it is important to identify and treat these other conditions.

Some of the more common coexisting conditions are oppositional defiant disorder, learning and language disabilities, and anxiety and depressive disorders.

Studies have shown that half or more children with ADHD also have oppositional defiant disorder. Children with oppositional defiant disorder often are defiant of authority and have a tendency to intentionally bother others. Some children with ADHD who exhibit more significant behavioral problems are diagnosed with conduct disorder. Conduct disorder is a serious psychiatric disorder in which the child is aggressive to people and animals, is destructive to property, and frequently violates society's rules. Children with coexisting conduct disorder are at much higher risk for getting into trouble with the law than children who have only ADHD. Your child's doctor may recommend counseling if your child has either oppositional defiant disorder or conduct disorder.

Twenty-five to 35 percent of children with ADHD will have a coexisting language or learning problem. Children with these coexisting conditions often benefit from scholastic and language therapies, as well as extra help at school.

Additionally, 33 percent of children with ADHD also have a problem with anxiety or mood disorders (such as depression). Children with these problems may benefit from additional treatment as well, possibly including talk therapy, medication, or both.

Disorders that Commonly Accompany ADHD

- Oppositional defiant disorder
- Conduct disorder
- Learning and language disabilities
- Anxiety disorders
- Depressive disorders
- Bipolar disorder
- Tourette's Disorder

Psychosocial Treatments

What psychosocial or behavioral treatments can be useful?

Psychosocial (or behavioral) treatment alone, such as social skills training or individual therapies, has not been shown to be as effective as medicine for the core symptoms of ADHD. However, behavioral treatment on its own may be recommended as an initial treatment if the symptoms of ADHD are mild, the diagnosis of ADHD is uncertain, or the family prefers this type of treatment.

Whether or not your child is on medication, behavioral treatment can help manage ADHD symptoms and lessen their impact on your child. One study showed that you may be able to lower your child's medication dosage if behavioral therapy is working well. Many parents find that the best way to learn how to use these techniques is to work with a therapist who has experience in behavior issues. Most doctors recommend that parents and guardians attend parenting classes, particularly those focused on managing children with ADHD.

Teachers also can benefit from using behavioral training techniques. They can set up programs similar to those at home, giving rewards for good behaviors and consequences for unwanted behaviors to help children learn boundaries and how to deal with choices in the school setting.

Home and School Strategies for Your Child

- Have the same routine every day.
- Organize everyday items.
- Use organizers for homework.
- Keep rules consistent and balanced.

Unproven Treatments

Do alternative treatments for ADHD, such as special diets or herbal supplements, really work?

Parents often hear reports of "miracle cures" for ADHD on the television, in magazines, or in advertisements. Before considering any treatment for ADHD, find out whether the source of this information is unbiased and whether the claims are valid, and discuss it with your child's doctor. Also keep in mind that there is no known cure for ADHD at this time.

Some of the more prevalent unproven treatments for ADHD are special diets, herbal supplements, homeopathic treatments, vision therapy, chiropractic adjustments, yeast infection treatments, anti-motion-sickness medication, metronome training, auditory stimulation, applied kinesiology (realigning bones in the skull), and brain wave biofeedback.¹⁷

While it would be wonderful if these treatments worked, rigorous scientific research has not found these alternatives to be effective managing the symptoms of ADHD—and they are definitely not "cures."

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