



# ADHD

What You Need to Know

**A**ttention-deficit/hyperactivity disorder (ADHD) is a brain condition that makes it hard for children to focus on tasks and control their behavior. One of the most common chronic conditions affecting children, ADHD is different from the usual behavior problems that children deal with at times. Children with ADHD tend to have persistent symptoms of inattention, impulsivity, and hyperactivity that interfere with their ability to carry on normal lives.

Between 4 percent and 12 percent of school-aged children have ADHD. Boys are diagnosed about three times more often than girls are.

The causes and origins of ADHD still aren't clear. However, ADHD is one of the most thoroughly researched childhood conditions, and much has been learned about it. We now know that:

- ADHD is a biological disorder, not just “bad behavior.” In a child with ADHD, the brain’s ability to properly use important chemical messengers, called neurotransmitters, is impaired.
- The parts of the brain that control attention and activity level may show lower activity in children with ADHD.
- There is a family connection with ADHD. Sometimes parents are diagnosed at the same time their children are.
- Environmental toxins can play a role in the development of ADHD, but that is extremely rare.
- Severe head injuries can cause ADHD in some cases.
- There is no evidence that ADHD is caused by eating too much sugar, food additives, allergies, or immunizations.

## Symptoms

A child with ADHD may have one or more of the following symptoms:

- **Inattention:** The child has a hard time paying attention. She daydreams, is easily distracted and disorganized, and tends to lose a lot of things.
- **Hyperactivity:** The child seems to be in constant motion and has difficulty staying seated. He frequently squirms and talks too much.
- **Impulsivity:** The child frequently acts and speaks without thinking, interrupting others. She is unable to wait for things.

A child with ADHD may have a very hard time getting along with siblings, friends, and classmates. Learning can be very difficult for an untreated ADHD child, and their impulsiveness can lead to physical danger.

## Diagnosis

The only way to determine if your child has ADHD is to be evaluated by a medical professional, who can accurately diagnose and treat a child with ADHD.

The American Academy of Pediatrics (AAP) has created guidelines to help pediatricians diagnose and treat ADHD in children ages 6 to 12 years. Generally, if your child has ADHD:

- Some symptoms will occur in more than one setting, such as home, school, and social events.
- The symptoms significantly impair your child’s ability to function in some of the activities of daily life, such as schoolwork and relationships with family and friends.
- They will start before your child reaches 7 years of age.
- They will continue for more than six months.
- They will make it difficult for your child to function at school, at home, and/or in social settings.

There is no proven test for ADHD at this time. However, your pediatrician will follow a process that takes several steps to gather information from you, your child’s school, and any other caregivers who spend time with

your child. “The AAP and other professional organizations suggest that evaluations for ADHD follow a standard format and look at a broad range of areas of functioning instead of just ADHD itself,” says Michael I. Reiff, MD, FAAP, editor-in-chief of *ADHD: A Complete and Authoritative Guide*.

Some children have ADHD along with another behavior condition. Your pediatrician will look for signs of such common “coexisting conditions” as:

- **Oppositional defiant disorder or conduct disorder:** Oppositional defiant disorder is more than the usual “boundary testing” that children sometimes do. Children with this condition tend to lose their temper easily, annoy people on purpose, and show defiance and hostility to authority figures. Conduct disorder is similar, but involves breaking rules, destroying property, and violating the rights of others—and can lead to legal trouble. Up to 35 percent of children with ADHD have one of these conditions, as well. Your pediatrician may recommend counseling in addition to ADHD treatment in these cases.
- **Mood disorders and depression:** Children, especially teenagers, with these coexisting conditions may be at higher risk for suicide. Frequently there is a family history of these disorders. Your pediatrician may prescribe a different type of medication for these disorders than those typically prescribed to treat ADHD alone. About 18 percent of ADHD children have

How can you tell if your child has ADHD, and what can be done about it? Here's what you need to know.

Because scientists have learned so much about ADHD through ongoing research, the treatment of ADHD is more effective than ever before for the majority of children.



a coexisting mood disorder, including depression.

- **Anxiety disorders:** Extreme fear, worry, and panic are feelings common to ADHD children with coexisting anxiety disorders. Typically, these disorders include such symptoms as a racing pulse, sweating, diarrhea, and nausea. Counseling and medication may both be required to treat these coexisting conditions, which affect approximately 25 percent of ADHD children.
- **Learning disabilities:** These conditions make it very difficult for children to master specific learning skills, such as reading or math. When they coexist with ADHD, they can make it even more difficult for children to thrive in school. IQ and academic achievement tests can be used to diagnose a learning disability.

## Treatment Plan

Because scientists have learned so much about ADHD through ongoing research, the treatment of ADHD is more effective than ever before for the majority of children. There is no specific cure, but there are many treatment options that pediatricians can tailor for your child.

A typical treatment plan will include the following components:

- A long-term management plan with:
  - Behavior goals
  - Follow-up activities
  - Monitoring
- Education about ADHD
- A team approach to treatment that includes doctors, parents, teachers, caregivers, other health care professionals, and your child
- Medication
- Behavior therapy
- Parent training
- Individual and family counseling

The treatment plan will take a long-term approach, similar to the treatment approaches to other chronic conditions, such

as asthma or diabetes. ADHD does not go away, so ongoing management of the symptoms is necessary. “The initial steps in starting and carrying out a treatment plan for ADHD can be stressful for all families,” Dr. Reiff says. “That is why it is so important to define a limited number of target goals and treatments that are achievable and can fit into your family’s daily life.”

Education is a particularly important part of the program, and it begins with the parent. The more you read about the condition, the more you can explain to the teachers and other caregivers who work with your child.

## Behavior Therapy

Most experts recommend both behavior therapy and medication together to treat ADHD. There is more than one type of behavior therapy, but all types have the common goal of helping the child achieve the desired behavior goals.

The behavior goals for your child should be realistic, observable, and measurable. Improved schoolwork, more independence in homework and self-care, improved self-esteem, fewer disruptive incidents, and better awareness of safety concerns are typical goals for behavior treatment. Your pediatrician will work with you to establish these goals and work with you to develop a workable approach for rewarding improvements and using consequences for relapses.

## Medication Therapy

Another key part of a treatment program is medication. For most children, stimulant medications are both safe and effective at relieving ADHD symptoms. They help children

focus their thoughts better and ignore distractions, which helps them pay attention and control their behavior more effectively. Research proves that around 80 percent of ADHD children show great improvement through therapy with stimulants. Stimulants are the most prescribed type of medication to treat ADHD.

There are three basic types of stimulant medication:

- Short-acting (immediate release), which move into the system quickly, wear off after a few hours, and must be taken several times a day.
- Intermediate-acting, which enter the system more gradually and require fewer doses during the day.
- Extended-release, which require only a single daily dose (usually in the morning).

Your pediatrician may prescribe one or more stimulants for your child, including:

- **Methylphenidate:** The best-known brands are Ritalin<sup>®</sup>, Methylin<sup>®</sup>, Metadate<sup>®</sup>, and Concerta<sup>®</sup>. There are three basic types of this stimulant medication:
  - Short-acting (immediate release), which move into the system quickly, wear off after a few hours, and must be taken several times a day.
  - Intermediate-acting, which enter the system more gradually and require fewer doses during the day.
  - Long-acting, which require only a single daily dose (usually in the morning).
- **Amphetamine:** The best-known brands are Dexedrine<sup>®</sup>, Dextrostat<sup>®</sup>, and Adderall<sup>®</sup>. A long-acting type, Adderall-XR<sup>®</sup>, is also available.
- **Atomoxetine:** This is a non-stimulant option your doctor may prescribe. It is also known by its brand name, Strattera<sup>®</sup>.

Your pediatrician will work with you to find the right medication, dosage, and schedule for your child. Some children respond to one type of stimulant, but not others, and it may take some time to find the right combination.

The diagnosis of ADHD and the medication used to treat it may carry a certain stigma for your child. Dr. Reiff recommends working closely with your child to educate her on the importance and benefits of treatment. “While there is no one-size-fits-all solution, a parent should work with the child and the rest of the treatment team to find a positive approach,” he says. Dr. Reiff adds that keeping the child informed about the medication and all aspects of managing it can help encourage the child’s acceptance of the treatment plan.

All medications have side effects, and the stimulant medications used to treat ADHD are no exception. Not all children experience side effects, but those who do most commonly report decreased appetite or weight loss, sleep problems, and social withdrawal. Most side effects can be lessened or relieved completely by changing dosage, adjusting the medication schedule, or choosing a different stimulant. Also, most side effects decrease over time with continued use of the medication. Your pediatrician will guide you through this process.

Dosage may also need to be adjusted over time, depending on weight and other factors (including possible side effects).

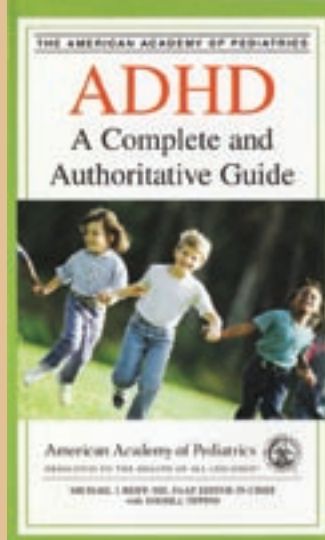
### Living with ADHD

It is very important to continue monitoring your child with ADHD to see how she is progressing. Regular office visits, checklists, written reports from teachers, and behavior report cards are among the tools that many parents have found very helpful in evaluating the child’s progress with treatment.

If treatment goals are not being met over time, they may need to be reviewed.

Keep in mind that while treatment can be very effective in reducing the impact of ADHD on your child’s life, it may not completely eliminate the symptoms. By continually communicating with the health care and educational professionals who work with your child, you can determine where the source of the difficulties may lie. ●

## Has your child been diagnosed with ADHD?



### ADHD

*A Complete and Authoritative Guide*

By the American Academy of Pediatrics  
Michael I. Reiff, MD, FAAP,  
Editor in Chief,  
with Sherill Tippins

What are treatment options? How do you work with schools? What does your child’s future hold? Understand and manage this often confounding disease with information on medication, behavior therapy, adolescent ADHD, and more.

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