

Attention-Deficit Hyperactivity Disorder (ADHD)

Overview

What is ADHD?

Attention-deficit hyperactivity disorder (ADHD) is the name of a group of behaviors found in many children and adults. People who have ADHD have trouble paying attention in school, at home or at work. Even when they try to concentrate, they find it hard to pay attention. Children may be much more active and/or impulsive than what is usual for their age. These behaviors contribute to significant problems in relationships, learning and behavior. For this reason, children who have ADHD are sometimes seen as being "difficult" or as having behavior problems.

People who have ADHD have a hard time organizing things, listening to instructions, remembering details and controlling their behavior. As a result, people who have ADHD often have problems getting along with other people at home, at school or at work.

There is a lot of information in the news about ADHD. Usually the news is about ADHD in children. Not as much is known about the way ADHD affects adults. Often adults who have ADHD are diagnosed when they find out their children have ADHD. This health problem may run in families.

ADHD is more common in boys than in girls. You may be more familiar with the term attention deficit disorder (ADD). This disorder was renamed in 1994 by the American Psychiatric Association (APA).

Will my child outgrow ADHD?

We used to think children would "grow out" of ADHD. We now know that is not true for most children. Symptoms of ADHD often get better as children grow older and learn to adjust. Hyperactivity usually stops in the late teenage years. But about half of children who have ADHD continue to be easily distracted, have mood swings, hot tempers and are unable to complete tasks. Children who have loving, supportive parents who work together with school staff, mental health workers and their doctor have the best chance of becoming well-adjusted adults.

Symptoms

What are the symptoms of ADHD?

The person with ADHD who is inattentive will have 6 or more of the following symptoms:

- Has difficulty following instructions
- Has difficulty keeping attention on work or play activities at school, work and home
 - Loses things needed for activities at school, work and home

- Appears not to listen
- Doesn't pay close attention to details
 - Seems disorganized
- Has trouble with tasks that require planning ahead
 - Forgets things
 - Is easily distracted

The person with ADHD who is hyperactive/impulsive will have at least 6 of the following symptoms:

- Fidgety
- Runs or climbs inappropriately
 - Can't play quietly
 - Blurts out answers
 - Interrupts people
 - Can't stay in seat
 - Talks too much
- Is always on the go
- Has trouble waiting his or her turn

People who have ADHD have symptoms for at least 6 months.

Causes & Risk Factors

What causes ADHD?

People who have ADHD do not make enough chemicals in key areas in the brain that are responsible for organizing thought. Without enough of these chemicals, the organizing centers of the brain don't work well. This causes the symptoms in people who have ADHD. Research shows that ADHD is more common in people who have close relatives with the disorder. Recent research also links smoking and other substance abuse during pregnancy to ADHD. Exposure to environmental toxins, such as lead, can also be a factor.

Things that *don't* cause ADHD:

- Bad parenting (though a disorganized home life and school environment can make symptoms worse)
 - Too much sugar
 - Too little sugar
- Aspartame (one brand name: NutraSweet)
 - Food allergies or other allergies
 - Lack of vitamins
 - Fluorescent lights
 - Too much TV
 - Video games

Diagnosis & Tests

What should I do if I think my child has ADHD?

Talk with your child's doctor. A diagnosis of ADHD can be made only by getting information about your child's behavior from several people who know your child. Your doctor will ask you questions and may want to get information from your child's teachers or anyone else who is familiar with your child's behavior. Your doctor may have forms or checklists that you and your child's teacher can fill out. This will help you and your doctor compare your child's behavior with other children's behavior.

Your doctor will probably want to test your child's vision and hearing if these tests haven't been done recently.

Your doctor may recommend trying medicine to see if it helps control your child's hyperactive behavior. A trial of medicine alone cannot be the basis for diagnosing ADHD. However, it can be an important part of evaluating your child if ADHD is suspected.

It might be hard for your doctor to tell if your child has ADHD. Many children who have ADHD aren't hyperactive in the doctor's office. For this reason, your doctor may want your child to see someone who specializes in helping children who have behavior problems, such as a psychologist.

How is ADHD diagnosed?

Many people try to diagnose themselves by using a quiz or a checklist they find in a magazine or see on TV. While these lists can be helpful, it's best to see your doctor if you think you have ADHD. Your doctor may ask you questions like the following:

- Do you have problems with paying attention and being hyperactive? Have you had these problems since you were a child?
 - Do you have a hard time keeping your temper or staying in a good mood?
 - Do you have problems staying organized or being on time?
 - Do these problems happen to you both at work and at home?
 - Do family members and friends see that you have problems in these areas?
- Do you have any physical or mental health problems that might affect your behavior? (Your doctor may give you a physical exam and do tests to see if you have any medical problems with symptoms that are like ADHD.)

Your doctor might ask you questions about your past, your life now and your relationships. You may be asked to write down your answers on a form.

If I don't have ADHD, what could be making me feel this way?

A person can be jittery or distracted for many reasons. The following are some of the other problems your doctor may consider when he or she makes a diagnosis:

- Depression or mood problems
 - Anxiety or panic attacks

- Side effects of prescription and over-the-counter medicines, or herbal medicines
 - Thyroid problems or other hormone problems
 - Alcoholism or substance abuse
 - Exposure to lead

Treatment

What medicines are used to treat ADHD?

Some of the medicines for ADHD are called psychostimulants. Some of these drugs include methylphenidate, dextroamphetamine, atomoxetine, and a drug that combines dextroamphetamine and amphetamine (called a d- and l-amphetamine racemic mixture). Although these medicines have a stimulating effect in most people, they have a calming effect in people who have ADHD. These medicines improve attention and concentration, and decrease impulsive and overactive behaviors. Other medicines can also be used to treat ADHD. Talk with your doctor about what treatments he or she recommends.

Other medicines sometimes used to treat ADHD include atomoxetine, clonidine, desipramine, imipramine and bupropion.

It's important to know that psychostimulant medicines used to treat ADHD are called "controlled" drugs. There are special rules about the way controlled drugs can be prescribed. The prescriptions for controlled drugs, such as methylphenidate and dextroamphetamine, must be refilled at the drug store every month.

Do the medicines for ADHD have side effects?

All medicines have side effects. Psychostimulants may decrease your appetite and cause a stomachache or a headache. The loss of appetite can cause weight loss in some people.

This side effect seems to be more common in children. Some people have insomnia (trouble sleeping). Other possible side effects include fast heartbeat, chest pain or vomiting.

Here are some ways to avoid side effects when taking psychostimulants:

- Offer healthy snacks to children who lose weight while taking medication for ADHD.

How should medicine for ADHD be taken?

It's important to take the medicine just the way your doctor prescribes it. Follow your doctor's advice even if you think the medicine isn't working. Be sure to talk with your doctor if you think the medicine isn't working.

It's best to take the medicine 30 to 45 minutes before a meal. Good times to take this medicine are before breakfast and before lunch (if a second dose is needed). Lunch-time doses can be given at school for some children. If your child can't take this medicine at school, tell your doctor. Your doctor might suggest a long-acting form of the medicine instead. The long-acting form of this medicine is taken once a day only, right before breakfast. If you are taking the long-acting form of this medicine, do not crush, break or chew it before swallowing it.

Will the medicines also help with other problems?

The medicines used to treat ADHD have been shown to improve a person's ability to do specific tasks, such as pay attention or have more self-control in certain situations. It is not known whether these medicines can improve broader aspects of life, such as relationships or learning and reading skills. However, when children who have ADHD are not achieving their potential in school, medical treatment can often result in better grades and behavior.

How long will this treatment last?

The length of time a person takes medicine for ADHD depends on each person. Everyone is different. Some people only need to take medicine for 1 to 2 years, while others need treatment for many more years. In some people, ADHD may continue into adolescence and adulthood.

People who have ADHD should be checked regularly by their doctors. During these checkups, the doctor will want to hear what the parents have to say about a child who has ADHD. A teacher's comments about the child are also important. If your child has ADHD, your doctor may suggest that he or she take a break from his or her medicines once in a while to see if the medicine is still necessary. Talk with your doctor about the best time to do this--school breaks or summer vacation might be best.

What else can I do to help my child?

A team effort, with parents, teachers and doctors working together, is the best way to help your child. Children who have ADHD may be difficult to parent. They may have trouble understanding directions, and their constant state of activity can be challenging for adults. Children who have ADHD also tend to need more structure and clearer expectations. You may need to change your home life a bit to help your child. Here are some things you can do to help:

- **Make a schedule.** Set specific times for waking up, eating, playing, doing homework, doing chores, watching TV or playing video games, and going to bed. Post the schedule where your child will always see it. Explain any changes to the routine in advance.
- **Make simple house rules.** It's important to explain what will happen when the rules are obeyed and when they are broken. Write down the rules and the results of not following them.
- **Make sure your directions are understood.** Get your child's attention and look directly into his or her eyes. Then tell your child in a clear, calm voice specifically what you want. Keep directions simple and short. Ask your child to repeat the directions back to you.
- **Reward good behavior.** Congratulate your child when he or she completes each step of a task.
- **Make sure your child is supervised all the time.** Because they are impulsive, children who have ADHD may need more adult supervision than other children their age.
- **Watch your child around his or her friends.** It's sometimes hard for children who have ADHD to learn social skills. Reward good play behaviors.

- **Set a homework routine.** Pick a regular place for doing homework, away from distractions such as other people, TV and video games. Break homework time into small parts and have breaks.
- **Focus on effort, not grades.** Reward your child when he or she tries to finish school work, not just for good grades. You can give extra rewards for earning better grades.
- **Talk with your child's teachers.** Find out how your child is doing at school--in class, at playtime, at lunchtime. Ask for daily or weekly progress notes from the teacher.

Some children benefit from counseling or from structured therapy. Families may benefit from talking with a specialist in managing ADHD-related behavior and learning problems.

Studies have shown that certain food colorings and preservatives may cause or worsen hyperactive behavior in some children. Talk to your doctor about whether you need to make any changes to your child's diet.

What else can I do if I have ADHD?

If your doctor thinks you have ADHD, he or she may suggest counseling. Your doctor may also send you for more testing and counseling to someone who specializes in treating ADHD.

What else can I do to help myself?

You can learn ways to change your work environment and keep distractions to a minimum. Organizational tools can help you learn how to focus on activities at work and at home.

Many people who have ADHD find counseling helpful. A lifetime of ADHD behaviors and problems can cause low self-esteem and problems with relationships. Individual counseling and support groups may help you with these problems.