

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)

What is attention-deficit/hyperactivity disorder (ADHD)?

Attention-deficit/hyperactivity disorder (ADHD) is the most common mental health problem in children. Children with ADHD often have problems with attention span, hyperactivity, and impulsive behavior. It is often called by an older name, attention deficit disorder (ADD).

Between 3% and 7% of all school age children have ADHD. The disorder begins in the preschool years and may either continue or fade away during the teenage years. About one-third of children with ADHD also have learning problems such as a reading disability. About half of ADHD children and teenagers have behavior problems, which may include breaking rules, talking back, and hitting other children.

ADHD is 7 times more common in boys than girls. Girls are more likely to have troubles with attention and less likely to have hyperactivity.

How does it occur?

In about 70% of cases, ADHD is inherited. It runs in families, especially through the males in the family line. Research continues in an effort to find out why it occurs in those without a family history. Some factors associated with ADHD include:

- Substance abuse during pregnancy
- Smoking during pregnancy
- Various illnesses during pregnancy
- A long and difficult labor
- The baby being short of oxygen during birth
- The umbilical cord being wrapped around the baby's neck

Much research has looked at whether ADHD is caused by sugar or things added to foods such as preservatives and coloring. No sound evidence has connected these with ADHD. Allergies are not a factor in causing ADHD.

People with ADHD have several small differences in their brain structure. These differences are in the front part of the brain (an area involved in self-control) and in some parts in the center of the brain.

What are the symptoms?

The symptoms of ADHD, especially hyperactivity, usually appear by age 2 or 3 and by first grade at the latest. The main symptoms are:

- **Distractibility** (trouble keeping attention on tasks). Children and teens with ADHD change activities very often, frequently not finishing what they have started. Their attention is also very easily interrupted (distracted) by noises or things they see around them.
- **Poor impulse control**, or impulsivity (having a hard time with patience and waiting). Children with this symptom often react quickly without making of the outcome. They also are impatient and tend to interrupt others in conversations and begin tasks without enough planning.
- **Hyperactivity** (excessive movement). Hyperactive children are nearly always on the go. They seldom sit still, and even when sitting, they usually fidget or play with things.

Common related symptoms are:

- Trouble organizing tasks and projects
- Difficulty slowing down at night to get to sleep
- Social problems from being aggressive, loud, or impatient in groups and conversations

How is it diagnosed?

Your health care provider will ask about the symptoms and will observe your child's behavior for signs of ADHD. To diagnose ADHD, it must be clear that the symptoms interfere in a major way with daily life. You and others, such as your child's teachers, may be asked to complete questionnaires or rating forms about ADHD symptoms. Your child may be asked to see a psychologist or other mental health professional for tests of attention and self-control.

There are no useful physical tests such as blood tests or brain scans for diagnosing ADHD.

There are 3 forms of ADHD:

- **Combined ADHD.** All of the main symptoms are present: distractibility, poor impulse control, and hyperactivity.
- **Predominately inattentive.** Attention problems dominate. Often, there is very little hyperactivity or impulsivity. This form is especially common among girls.
- **Predominately impulsive-hyperactive type.** Poor self-control is the main problem.

How is it treated?

The treatment of ADHD may involve 3 types of treatment:

- **Learning coping skills:** Children with ADHD learn to avoid highly stimulating situations that distract and over-excite them. They should learn to study in quiet places and to take frequent breaks. In a classroom, they do best at individual desks rather than at a table with others. They also often find that background instrumental music is helpful. Children with ADHD need more structure and daily routine than most people.
- **Behavioral training:** Simple behavior programs with charts and daily rewards can be good for teaching longer attention spans and sitting still. One form of behavioral training is brain wave, or EEG, biofeedback. In this treatment, a mental health professional trains the child to maintain the brain waves found during sustained attentions and calmness. This treatment usually takes 15 to 30 sessions and is best for very motivated children and teens.
- **Medicines:** Since the 1920s, the medicines methylphenidate (Ritalin) and dextroamphetamine (Dexedrine) have been used. They are stimulants, and appear to stimulate the self-control areas of the brain. Another medicine often used is dextroamphetamine/amphetamine (Adderall). These medications do not slow you down, but rather increase self-regulation. About 70% of children with ADHD improve with these medicines. The most common side effects are loss of appetite and trouble getting to sleep. Your child's dosage will be gradually adjusted to reduce side effects. Sometimes, medicines are used only on school days. When these medicines are not effective, there are other medicines that can help with ADHD.

Treatments that have not been found effective include diets limiting sugar, food additives, or food colorings; and herbal supplements and health foods. Despite much research into this area since the 1970s, little has been found that relates diet to hyperactivity, impulsive behavior, or poor attention. It is clear that children who believe certain foods (such as sugar) will make them "hyper," do change behavior after eating that food.

Although there are claims that many health foods benefit children with ADHD, there are almost no data to back up or refute those claims.

How long do the effects last?

The symptoms of ADHD almost last from early childhood until puberty. Between puberty and the young adult years, about half of ADHD sufferers have a major reduction in symptoms. The other half show a slight change or no change in symptoms as they grow into adulthood. Being more patient and better able to sit still are the most common improvements between childhood and young adulthood.

DEALING with ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)

What is ADHD?

ADHD is a disorder that affects 3% to 5% of children. Children with ADHD often have problems with attention span, hyperactivity, and impulsive behavior. ADHD is the term now used for ADD (Attention Deficit Disorder). ADHD is more common in boys than in girls.

A normal attention span is 3 to 5 minutes per year of a child's age. Therefore, a 2-year-old should be able to concentrate on a particular task for a least 6 minutes, and a child entering kindergarten should be able to concentrate for at least 15 minutes. (Note: A child's attention span while watching TV is not an accurate measure of his or her attention span).

- A child with ADHD has trouble listening when someone talks, waiting his turn, completing a task, or returning to a task if interrupted. (These can be normal characteristics of children less than 3 or 4 years old).
- 80% of boys and 50% of girls are also hyperactive. A child who has symptoms of hyperactivity is restless, impulsive, and in a hurry.
- 50% of children also have a learning disability. The most common learning disability is an auditory processing deficit (that is, they have difficulty remembering verbal directions). However, the intelligence of most children with ADHD is usually normal.

If you suspect that your child has a short attention span, ask another adult (a teacher or day care provider, for example) if they have observed this also.

What can I do to help my child?

Attention deficit disorder is a chronic condition that needs special parenting and school intervention. If your child seems to have a poor attention span and is over 3 years of age, these recommendations may assist you in helping your child. Your main obligations involve organizing your child's home life and improving discipline. Only after your child's behavior has improved will you know for certain if your child also has a short attention span. If he does, specific interventions to help him learn to listen and complete tasks ("stretch" his attention span) can be initiated. Even though you can't be sure about poor attention span until your child is 3 or 4 years of age, you can detect and improve behavior problems at any time after 8 months of age.

1. **Accept your child's limitations.**

Accept the fact that your child is intrinsically active and energetic and possibly always will be. The hyperactivity is not intentional. Don't expect to eliminate their hyperactivity but merely to bring it under reasonable control. Any criticism or other attempt to change an energetic child into a quiet or model child will cause more harm than good. Nothing helps a hyperactive child more than having a tolerant, patient, low-keyed parent.

2. **Provide an outlet for the release of excess energy.**

This energy can't be bottled up and stored. Daily outdoor activities such as running, sports, and long walks are good outlets. A fenced yard helps. In bad weather your child needs a recreational room where he can play as he pleases with minimal restrictions and supervision. If no large room is available, a garage will sometimes suffice. Your child should not have too many toys, for this can cause him to be more easily distracted from playing with any one toy. The toys should be safe and relatively unbreakable. Encourage your child to play with one toy at a time.

3. Follow a structured daily routine.

Household routines help the hyperactive child to accept order. Keep the times for wake-up, meals, snacks, chores, naps, and bed as regular as possible. Try to keep your environment relatively quiet because this encourages thinking, listening, and reading at home. In general, leave the radio and TV off. Predictable daily events help your child's response become more predictable. ADHD symptoms are made worse by sleep deprivations and hunger. Be sure your child has an early bedtime and a big breakfast on school days.

4. Try not to let your child become fatigued.

When a hyperactive child becomes exhausted, his self-control often breaks down and the hyperactivity becomes worse. Try to have your child sleep or rest when he or she is fatigued. If he can't seem to "turn off his motor," hold and rock him in a rocking chair.

For children who have trouble slowing down at bedtime, night lights and background music are often helpful.

5. Avoid taking your child to formal gatherings.

Except for special occasions, avoid places where hyperactivity would be extremely inappropriate and embarrassing (such as churches or restaurants). You also may wish to reduce the number of times your child goes with you to stores and supermarkets. After your child develops adequate self-control at home, he can gradually be introduced to these situations. Be sure to praise your child when he plays independently rather than interrupting you when you are talking to guests or are on the telephone.

6. Maintain firm discipline.

These children are unquestionably difficult to manage. They need more carefully planned discipline than the average child. Rules should be formulated mainly to prevent harm to your child and to others. Aggressive behavior, such as biting, hitting, and pushing, should be no more accepted in the hyperactive child than in the normal child. Try to eliminate such aggressive behaviors, but avoid unnecessary or unattainable rules; that is, don't expect your child to keep his hands and feet still. Hyperactive children tolerate fewer rules than the normal child. Enforce a few clear, consistent, important rules and add other rules at your child's pace. Avoid constant negative comments like "Don't do this," and "Stop that." Develop a set of hand signals and use them rather than verbal reminders to tell your child to calm down or slow down.

7. Enforce rules with nonphysical punishment.

Physical punishment suggests to your child that physically aggressive behavior is OK. We want to teach hyperactive children to be less aggressive. Your child needs adult models of control and calmness. Try to use a friendly, matter-of-fact tone of voice when you discipline your child. If you yell, your child will be quick to imitate you.

Punish your child for misbehavior immediately. When your child breaks a rule, isolate him in a chair or time-out room if a show of disapproval doesn't work. The time-out should last about 1 minute per year of your child's age. Without a time-out system, overall success is unlikely.

8. Stretch your child's attention span.

Encourage attentive (nonhyperactive) behavior is the key to preparing your child for school. Increased attention span and persistence with tasks can be taught at home. Don't wait until your child is of school age and expect the teacher to change him. By age 5 needs at least a 25-minute attention span to perform

adequately in school. Set aside several brief periods each day to teach your child listening skills by reading to him. Start with picture books, and gradually progress to reading stories. Coloring pictures can be encouraged and praised. Teach games to your child, gradually increasing the difficulty by starting with building blocks and progressing to puzzles, dominoes, card games, and dice games. Matching pictures is an excellent way to build your child's memory and concentrating span. Later, consequence games such as checkers or tic-tac-toe can be introduced. When your child becomes restless, stop and return for another session later. Praise your child for attentive behavior. This process is slow but invaluable in preparing your child for school.

Plan to have your child do homework and other tasks that require concentration in short blocks of time with breaks in between. Try having your child study with low-level background sound such as white noise or instrumental music. Do homework and studying away from the sounds of television, radio, or others talking but where adults can supervise.

9. Buffer your child against any overreaction by neighbors.

Ask neighbors with whom your child has contact to be helpers. If your child is labeled by some adults as a "bad" kid, it is important that this image of your child doesn't carry over into your home life. At home the attitude that must prevail is that your child is a good child with excess energy. It is extremely important that you not give up on him. Your child must always feel loved and accepted within the family. As long as a child has this acceptance, his self-esteem will survive. If your child has trouble doing well in school, help him gain a sense of success through a hobby in an area of strength.

10. From to time to time, get away from it all.

Exposure to some of these children for 24 hours a day would make anyone a wreck. Periodic breaks help parents to tolerate hyperactive behavior. If just the father works outside the home, he should try to look after the child when he comes home, not only to give his wife a deserved break but also to understand better what she must contend with during the day. A baby sitter one afternoon each week and an occasional evening out can provide much-needed breaks for an exhausted mother. Preschool is another helpful option. Parents need a chance to rejuvenate themselves so that they can continue to meet their child's extra need.

11. Utilize special programs at school.

Try to start your child in preschool by age 3 to help him learn to organize his thoughts and develop his ability to focus. However, you should consider enrolling your child in kindergarten a year late (that is, at age 6 rather than 5) because the added maturity may help him fit in better with his classmates.

Once your child enters grade school, the school is responsible for providing appropriate programs for your child's attention deficit disorder and any learning disability he might have. Some standard approaches that teachers use to help children with ADHD are smaller class size, isolated study space, spaced learning techniques, and inclusion of the child in tasks like erasing the blackboard or passing out books (as outlets for excessive energy). Many of these children spend part of their day with a teacher specializing in learning disabilities who help improve their skills and confidence.

Seek a classroom for your child that has individual desks rather than one where students are seated in groups at tables or with clusters of desks.

If you think your child has ADHD and he has not been tested by the school's special education team, you can request an evaluation. Usually you can obtain the help your child needs with schoolwork by working closely with the school staff through parent-teacher conferences and special meetings. Your main job is to continue to help your child improve his attention span, self-discipline, and friendships at home.

12. Medications are sometimes helpful.

Some stimulant drugs can improve a child's ability to concentrate. You may want to discuss the use of drugs with your child's physician. In general, medications should not be prescribed before school age. They should also not be prescribed until after your child has been evaluated by a doctor and a school psychologist or special education teacher, an individualized educational plan (I.E.P.) is in effect at school, and you have followed the suggestions in this handout. Medications without special education and home management programs have no long-term benefit. They need to be part of a broader treatment program.

When should I call my child's health care provider?

Call your child's health care provider for referral to a child psychiatrist or psychologist if:

- Your child shows unprovoked aggression and destructiveness
- Your child has repeated accidents
- Your child has been suspended or expelled from school
- Your child can't make or keep any friends
- You have "given up" hope of improving your child
- You can't stop using physical punishment on your child
- You are at your wit's end

STIMULANT MEDICATIONS: PROS AND CONS

How do stimulants work?

Since children with ADHD are already over-stimulated, it is hard to understand how a stimulant drug will help to calm them down. Researchers think that the area of the brain that controls when to pay attention to certain activities and when to ignore other ones is “lazy” in people with ADHD. Stimulants will stimulate those areas of the brain so that the child can pay attention and focus on his activities.

What are the pros?

Stimulants work quickly so you’ll know if it will help or not. The dosage may have to be adjusted by your health care provider. It is fairly inexpensive and has been used for many years. If your child is struggling in school and becoming unhappy, stimulant medicine may provide some relief. Benefits of stimulants often include:

- Less fidgeting or squirming
- Better control of emotions
- Less impatience
- Better relationship with family and friends
- Less trouble finishing classwork and homework
- Increased self-esteem

What are the cons?

Many parents do not like the idea of medicating their child for any length of time. As with any medicine, stimulants can have side effects. Some children will have few or no side effects. Other children may have to stop using stimulants because of the side effects.

Some common side effects include:

- Decreased in appetite
- Headaches
- Insomnia
- Irritability
- Stomachaches

Some children may become more active in the evening after the medicine has worn off. This can be an ordeal for families who are tired and stressed out at the end of the day. Some children will have problems sleeping.

Rarely, stimulants causes stuttering, high blood pressure, or growth delays. One to two percent of children on stimulant medicine may develop tics. Tics are twitching movements of muscles in the face. They go away if the medicine is stopped. A few children who take stimulants don’t like the way it makes them feel. Most, however, like being better able to concentrate on schoolwork and control their activity level.

About 25% of children with ADHD do not respond to stimulants, although some of these children will benefit from other ADHD medicines.

Should my child take stimulants?

There are several treatment approaches for ADHD other than medicine, such as:

- Changes to the child's education program
- Cognitive-behavioral therapy
- Parent education
- Social skills training

Discuss the decision to medicate your child with your child's health care providers, school counselors, and teachers. Decide with your doctor if your child's symptoms are causing enough problems that a trial of this medicine is needed.

Stimulants are not a cure. There is no cure for ADHD, though medicine can help manage some of the symptoms. If you decide to try stimulants, plan 1 to 4 week trial period. Your child is usually given a small dose at first, so it may be necessary to increase the dose. Be sure to have several people that interact with your child complete rating scales that relate to ADHD behavior after your child has been on the medication for a few weeks. Even if you do decide to try a stimulant, be sure to seek educational and behavioral methods that may help your child as well.

How to Request an Educational Evaluation Through Your School District

In order to identify specific learning problems an evaluation involving educational testing is usually conducted. It is often best to have this testing done by your school district. For example, if the testing is done by the school there is no cost to the parents. Testing conducted outside the school system can be very expensive. Often such outside testing is not covered by medical insurance. Also, school staff are responsible for deciding what services a child should receive.

Professionals from outside the school can make recommendations, but school staff do not have to follow these recommendations. All school districts have specialist who conduct educational testing. Testing to diagnose Autism, Mental Retardation, Attention Deficit Disorder and other common childhood disorders that impact school performance generally must be performed with further evaluation outside the school.

Parents can request an educational evaluation through the school district. However, it is very important that parents follow the steps outlined below in making the request. Anyone, including parents, may request that testing be completed, but the referral must be supported by at least one school professional before a Referral Conference can be held. The purpose of a referral conference is to determine the need for an educational evaluation.

STEPS TO REQUEST A REFERRAL CONFERENCE:

1. A referral is to be made in writing through the completion of the required Referral Form and provided to the principal or designee of the school in which the child is enrolled. Where the referral originates from a parent, an individual not associated with the school, or other agency personnel, an employee of the local educational agency, such as teachers, therapists, counselors, etc., where the child is enrolled must complete the Referral Form and forward it to the principal or designee of the school.
2. The school must contact the parent/guardian within 7 days after they receive the referral. The purpose of this contact (usually through a letter) will be to schedule a time for the referral conference. The letter will have a space to mark whether you can or cannot attend the time they set. If you cannot meet on the date they choose, there will be a space to inform the school of a date/time that is best for you. Return the letter to the principal/designee. Several days after mailing, call the school to make sure they received the letter.
3. Take information supporting your concerns to the referral conference. This information might include samples of homework, report cards, notes from teachers, any testing results, and medical records. If a doctor or other professional has recommended an evaluation, bring a letter or report stating the recommendation. You can also ask another person to go to the conference with you if they can provide information about their concern. Such a person might include a former teacher or a counselor. A doctor or psychologist can also complete an Other Health Impaired form if your child has been diagnosed with a chronic medical, neurological, or psychological condition that may impact performance they may be eligible for special services. An accompanying failure to perform academically in some areas is typically needed for them to be determined eligible for 504 modifications and more significant academic problems are required for an Individual Educational Plan (IEP). The presence of an Other Health Impairment establishes eligibility should the need exist.
4. If it is decided at the conference that your child should be tested you will need to give written consent by signing the appropriate educational forms. Before signing the consent form, be sure the testing will assess your concern.

5. It may be decided that your child will not be tested. In this case, insist that a plan be developed to address your concerns. Also request a follow-up meeting to assess whether the plan is working. If the plan does not work, request a second referral conference.

Remember, your chances of being successful increases by cooperating with the school. Be persistent and well prepared. If the school sees that you are seriously concerned about your child, they will be too.

ATTENTION DEFICIT HYPERACTIVITY DISORDER: RESOURCE LIST

Books for Children

Ages 4 to 8

- *Help is on the Way: A Child's Book About ADD*; Marc Nemiroff; Magination Press, 1998
- *Jumpin' Johnny Get Back to Work!*; by Michael Gordon; GSI 1991
- *ADHD*; Woodland Publishing, 1999
- *Otto Learns About His Medicine: a Story About Medication for Children with ADHD*; by Matthew Galvin; Magination Press, 1995
- *Taking A.D.D. To School: A "School" Story About Attention Deficit Disorder and/or Attention Deficit Hyperactivity Disorder*; Weiner, Ellen; JayJo Books, 1999
- *Sparky's Excellent Misadventures: My A.D.D. Journal*; by Phyllis Carpenter; Marti Ford; Magination Press, 1999
- *The A.D.D. Book For Kids*; by Shelly Rotner; Millbrook Press, 2000
- *A Child's Guide to Concentrating: For Kids With ADHD*; by Bonita Blazer; Shire Richwood, 1998 6-9

Ages 9 to 12

- *Distant Drums, Different Drummers: A Guide for Young People With ADHD*; by Barbara D. Ingersoll; Cape Publications, 1995
- *Eagle Eyes: A Child's Guide to Paying Attention*; by Jeanne Gehret; Verbal Images Press, 1996
- *Learning to Slow Down and Play Attention: A Book for Kids About ADD*; by Kathleen G. Nadeau, Ellen B. Dixon; (2nd ed); Magination Press, 1997
- *My Brother's A World Class Pain: A Sibling's Guide to ADHD/Hyperactivity*; by Michael Gordon, GSI, 1992
- *The "Putting On The Brakes" Activity Book For Young People With ADHD*; by Patricia O. Quinn, M.D.; Magination Press, 1993
- *What Do You Mean I Have Attention Deficit Disorder?*; by Kathleen M. Dwyer; Walker, 1996
- *Zipper: The Kid With ADHD*; by Caroline Janover; Woodbine House, 1997
- *The Survival Guide for Kids with LD (Learning Differences)*; by Gary Fisher; Free Spirit Press, 1990

Young Adult

- *Everyting You Need to Know About ADD/ADHD (Need to Know Library)*; by Eileen Beal; Rosen Publishing Group, 1998

Books for Adults

- *12 Effective Ways to Help Your ADD/ADHD Child: Drug-Free Alternatives for Attention-Deficit Disorders*; by Laura J. Stevens; Avery Publ. Group, 2000
- *ADD/ADHD Behavior-Change Resource Kit: Ready-to-Use Strategies & Activities for Helping Children with Attention Deficit Disorder*; by Grad LFlick; Center for Applied Research in Educ., 1998
- *ADHD: Achieving Success in School and in Life*; Barbara P. Guyer; Allyn & Bacon, 1999

- *ADHD in the Young Child: A Guide for Parents and Teachers of Young Children with ADHD: A Book for Parents and Teachers*; by Cathy L. Reimers, Bruce A. Brunger; Specialty Press Inc, 1999
- *ADHD Handbook for Families: A Guide to Communicating with Professionals*; by Paul L. Weingartner; Child Welfare League of America, 1999
- *Advice to Parents on ADHD*; by Larry B. Silver; Random House International; Hi Marketing, 2000
- *Fathering the ADHD Child: A Book for Fathers, Mothers, and Professionals*; by Edward H. Jacobs; Jason Aronson, 1998
- *From Chaos to Calm: Effective Parenting of Challenging Children with ADHD and Other Behavioral Problems*; by Janet Heining; Perigee, 2001
- *Helping Your Hyperactive/ADD Child*; by John Taylor; Prima Publishing, 1997
- *Hyperactivity: What's the Alternative?: Help Your Child Overcome Attention Deficit/Hyperactivity Disorder*; by Maggie Jones; Element, 2000
- *Life on the Edge: Parenting a Child With ADD/ADHD*; by David Spohn; Hazelden Information Education, 1998
- *Living Together with Learning Disabilities and ADHD: A Family Guide to Living and Learning Together*; Betty B. Osman; Wiley 1997
- *Making Sense of Attention Deficit/Hyperactivity Disorder*; by Carol R. Lensch; Bergin & Garvey, 1999
- *Managing Teens with ADD/ADHD: Practical Tools & Strategies For Dealing With Difficult Behaviors*; by Grad L. Flick; Center for Applied Research in Education, 2000
- *Parenting a Child With Attention Deficit/Hyperactivity Disorder*; 2nd ed.; by Nancy S. Boyles; Lowell House, 1999
- *Parenting the ADHD Child: Can't Do? Won't Do?*; by David Penteconst; Jessica Kingsley, 1999
- *Practical Ideas That Really Work for Students with ADHD*; by Kathleen McConnell; PRO-ED, 2000
- *Understanding Girls With ADHD*; by Kathleen G. Nadeau, Ellen Littman, Patricia O. Quinn; Advantage Books, 1999
- *Your Kid Has ADHD, Now What?: A Handbook for Parents, Educators & Practitioners*; by Pat Morris. Beavers Pond Press, 1998

Other Resources

Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD)

8181 Professional Place, Suite 201
Landover, MD 20785
(800) 233-4050
<http://www.chadd.org>

National ADDA (Attention Deficit Disorder Association)

9930 Johnnycake Ridge Rd., #3E
Mentor, OH 44060

Integrated Neuropsychological Services

“Mind works”
86 W Sunbridge Drive
Fayetteville, AR 72703
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