

Attention Deficit/Hyperactivity Disorder (ADHD) Overview

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 paying attention, are unable to sit still, and do things without thinking first. You may also hear it called attention deficit disorder (ADD). The disorder begins in the preschool years and may last into adulthood. About half of children with ADHD also have learning problems such as a reading disability. About half of ADHD children and teenagers have behavior problems. This may include breaking rules, talking back, and hitting other children.

ADHD is more common in boys than girls. Girls are more likely to have trouble paying attention. Boys are more likely to be hyperactive.

What is the cause?

The exact cause of ADHD is not known. ADHD seems to run in families. If a parent, uncle, or grandparent has ADHD, other family members may also develop it. People with ADHD have several small differences in the brain. 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.

Much research has looked at whether ADHD is caused by sugar or things added to foods such as preservatives and coloring. The evidence has not connected these with ADHD. Allergies are not a common factor in causing ADHD either.

What are the symptoms?

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

Children and teens with ADHD:

- Are distracted by what is going on around them.
- Have trouble waiting in line or taking turns.
- Start many projects but do not finish them.
- Act or react quickly without thinking of the outcome.
- Are quick to anger.
- Fidget and cannot sit still.
- Walk, run, or climb around when others are seated.
- Get bored very quickly.

There are 3 forms of ADHD:

- **Combined ADHD.** Your child has all of the main symptoms: distractibility, poor impulse control, and hyperactivity.
- **Predominately inattentive.** Your child has problems with focus and attention. This form of ADHD is often missed because there may be very little hyperactivity or impulsivity. This form is especially common among girls.

- **Predominately impulsive-hyperactive.** Poor self-control is the main problem.

How is it diagnosed?

Your healthcare provider will ask about the symptoms and will observe your child's behavior for signs of ADHD. Parents and teachers may be asked questions about ADHD symptoms. Your child may need to see a 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. To diagnose ADHD, it must be clear that the symptoms persist and interfere in a major way with daily life.

How is it treated?

The treatment of ADHD may involve 3 types of treatment:

- **Learning coping skills:** Children with ADHD learn to manage 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 help learning how to organize. They also need more structure and daily routine than most people.
- **Behavioral training:** Behavior programs may help your child develop a longer attention span and be able to sit still.
- **Medicines:** Since the 1920s, medicines such as methylphenidate (Ritalin, Concerta) 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 medicines 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 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.

Claims have been made that certain herbal and dietary products help control ADHD symptoms. Omega fatty acid supplements and certain vitamins and minerals may help symptoms of ADHD. No herb or dietary supplement has been proven to consistently or completely relieve symptoms of ADHD. Supplements are not tested or standardized and may vary in strength and effects. They may have side effects and are not always safe.

Learning ways to relax may help. Yoga and meditation may also be helpful. You may want to talk with your healthcare provider about using these methods along with medicines and psychotherapy.

How long do the effects last?

About half of people with ADHD seem to "grow out of it" by their early twenties. 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 late childhood and young adulthood.

What can I do to help my child?

There are many ways to help manage ADHD:

- When children need to read or concentrate, have them work away from the sounds of television, radio, or others talking.
- When your child needs to concentrate, try having low-level background sound such as white noise or instrumental music.
- Encourage your child to do tasks in short blocks of time with breaks in between.
- Teach your child how to use a planner and how to organize schoolwork.
- Most school districts have special programs to help children with ADHD. Find out what services are available through the school district or your community to help
- Help your child to follow a very structured daily routine.
- If your child has trouble slowing down at bedtime, a planned quiet time before bedtime and background music when falling asleep are often helpful.
- Encourage your child to exercise regularly.
- Help your child to get enough sleep.
- Help your child to eat a healthy diet.
- Limit caffeine.

For more information, contact:

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

8181 Professional Place, Suite 150,

Landover, MD 20785

Telephone: (800) 233-4050

Web site: <http://www.chadd.org/>

ADHD Resources Available on the Internet

ADHD Information

About Our Kids

http://www.aboutourkids.org/articles/about_adhd.html

ADDitude Magazine for People With ADHD

<http://www.additudemag.com>

ADDvance Online Resource for Women and Girls With ADHD

<http://www.addvance.com>

American Academy of Family Physicians (AAFP)

<http://www.aafp.org>

American Academy of Pediatrics (AAP)

<http://www.aap.org>

American Medical Association (AMA)

<http://www.ama-assn.org>

Attention-Deficit Disorder Association (ADDA)

<http://www.add.org>

Attention Research Update Newsletter

<http://www.helpforadd.com>

Bright Futures

<http://www.brightfutures.org>

Center for Mental Health Services Knowledge Exchange Network

<http://www.mentalhealth.org>

Children and Adults With Attention-Deficit/Hyperactivity Disorder (CHADD)

<http://www.chadd.org>

Comprehensive Treatment for Attention-Deficit Disorder (CTADD)

<http://www.ctadd.com>

Curry School of Education (University of Virginia)

ADD Resources

<http://tels.virginia.edu/go/cise/ose/categories/add.html>

Intermountain Health Care

<http://www.ihc.com/xp/ihc/physician/clinicalprograms/primarycare/adhd.xml>

National Center for Complementary and Alternative Medicine (NCCAM)

<http://nccam.nih.gov>

National Institute of Mental Health (NIMH)

<http://www.nimh.nih.gov/publicat/adhdmnu.cfm>

Northern County Psychiatric Associates

<http://www.ncpamd.com/adhd.htm>

One ADD Place

<http://www.oneaddplace.com>

Pediatric Development and Behavior

<http://www.dbpeds.org>

San Diego ADHD Web Page

<http://www.sandiegoadhd.com>

Vanderbilt Child Development Center

<http://peds.mc.vanderbilt.edu/cdc/rating-1.html>

Educational Resources

American Association of People With Disabilities (AAPD)

<http://www.aapd.com>

Consortium for Citizens With Disabilities

<http://www.c-c-d.org>

Council for Learning Disabilities

<http://www.cldinternational.org>

Education Resources Information Center (ERIC)

<http://ericir.syr.edu>

Federal Resource Center for Special Education

<http://www.dssc.org/frc>

Internet Resource for Special Children

<http://www.irsc.org>

Learning Disabilities Association of America

<http://www.ldanatl.org>

National Information Center for Children and Youth With Disabilities (NICHCY)

<http://www.nichcy.org>

Parent Advocacy Coalition for Educational Rights (PACER) Center

<http://www.pacer.org>

SAMSHSA

<http://www.disabilitydirect.gov>

SandraRief.com

<http://sandrariel.com>

TeachingLD

<http://www.dldcec.org>

US Department of Education

<http://www.ed.gov>

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Family History

Date: _____

Family data *To be filled out by parents*

Child's name _____ Adopted? _____ Birthdate _____ Age _____

Home address _____ Home phone _____

School _____ Grade _____ School phone _____

Father's name _____ Age _____ Education _____

Employment _____

Mother's name _____ Age _____ Education _____

Employment _____

Other children in home _____

Name and age _____ Name and age _____

Name and age _____ Name and age _____

Other relatives or persons living in home _____

Circle appropriate items below

(OUR, MY) reason for bringing child in is (physical problems, speech problems, poor school work, behavior problems, not doing well at home or school). Problem has been going on (weeks, months, years or more).

Family Circle correct answers

Child lives with (biological parents, stepfather, stepmother, and adoptive parents)

(Father, mother, neither, both) had similar troubles

Child (disrupts, gets along with) family

Child has mostly been a source of (pride, worry, friction) for family

Parents (agree, disagree) on how to discipline child

Discipline has been (strict, lenient, inconsistent, all of these)

Marital troubles are (mild, moderate, severe)

Parents have problems of (alcoholism, chronic disease, mental illness)

Other children in the home have problems with (school behavior, grades, illness, emotional adjustment)

Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of the child you are rating and should reflect that child's behavior since the beginning of the school year. Please indicate the number of weeks or months you have been able to evaluate the behaviors: _____.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Fails to give attention to details or makes careless mistakes in schoolwork	0	1	2	3
2. Has difficulty sustaining attention to tasks or activities	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through on instructions and fails to finish schoolwork (not due to oppositional behavior or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (school assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by extraneous stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat in classroom or in other situations in which remaining seated is expected	0	1	2	3
12. Runs about or climbs excessively in situations in which remaining seated is expected	0	1	2	3
13. Has difficulty playing or engaging in leisure activities quietly	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks excessively	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting in line	0	1	2	3
18. Interrupts or intrudes on others (eg, butts into conversations/games)	0	1	2	3
19. Loses temper	0	1	2	3
20. Actively defies or refuses to comply with adult's requests or rules	0	1	2	3
21. Is angry or resentful	0	1	2	3
22. Is spiteful and vindictive	0	1	2	3
23. Bullies, threatens, or intimidates others	0	1	2	3
24. Initiates physical fights	0	1	2	3
25. Lies to obtain goods for favors or to avoid obligations (eg, "cons" others)	0	1	2	3
26. Is physically cruel to people	0	1	2	3
27. Has stolen items of nontrivial value	0	1	2	3
28. Deliberately destroys others' property	0	1	2	3
29. Is fearful, anxious, or worried	0	1	2	3
30. Is self-conscious or easily embarrassed	0	1	2	3
31. Is afraid to try new things for fear of making mistakes	0	1	2	3

The recommendations in this publication do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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Adapted from the Vanderbilt Rating Scales developed by Mark L. Wolraich, MD.

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Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
32. Feels worthless or inferior	0	1	2	3
33. Blames self for problems; feels guilty	0	1	2	3
34. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
35. Is sad, unhappy, or depressed	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
Academic Performance					
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written expression	1	2	3	4	5

Classroom Behavioral Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5

Comments: _____

Please return this form to: _____

Mailing address: _____

Fax number: _____

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Total number of questions scored 2 or 3 in questions 1–9: _____

Total number of questions scored 2 or 3 in questions 10–18: _____

Total Symptom Score for questions 1–18: _____

Total number of questions scored 2 or 3 in questions 19–28: _____

Total number of questions scored 2 or 3 in questions 29–35: _____

Total number of questions scored 4 or 5 in questions 36–43: _____

Average Performance Score: _____

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NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child.
When completing this form, please think about your child's behaviors in the past **6 months**.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3
26. Is spiteful and wants to get even	0	1	2	3
27. Bullies, threatens, or intimidates others	0	1	2	3
28. Starts physical fights	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others)	0	1	2	3
30. Is truant from school (skips school) without permission	0	1	2	3
31. Is physically cruel to people	0	1	2	3
32. Has stolen things that have value	0	1	2	3

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

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Adapted from the Vanderbilt Rating Scales developed by Mark L. Weirich, MD.

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NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____
 Parent's Name: _____ Parent's Phone Number: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments: _____

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Total number of questions scored 2 or 3 in questions 1–9: _____
 Total number of questions scored 2 or 3 in questions 10–18: _____
 Total Symptom Score for questions 1–18: _____
 Total number of questions scored 2 or 3 in questions 19–26: _____
 Total number of questions scored 2 or 3 in questions 27–40: _____
 Total number of questions scored 2 or 3 in questions 41–47: _____
 Total number of questions scored 4 or 5 in questions 48–55: _____
 Average Performance Score: _____

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