

ADHD

Considering ADHD diagnosis?
Problem from inattention/hyperactivity?

Consider comorbidity or other diagnosis:
Oppositional Defiant Disorder
Conduct Disorder
Substance Abuse
Language or Learning Disability
Anxiety Disorder
Mood Disorder
Autistic Spectrum Disorder
Low Cognitive Ability/Mental Retardation

Diagnosis:
Preschoolers have some normal hyperactivity/impulsivity: recommend skepticism if diagnosing ADHD in this group. (Note that Medicaid may require a medication review if prescribing and child age <5)
If rapid onset symptoms, note this is not typical of ADHD

Use DSM-IV TR criteria:
Must have symptoms present in more than one setting
Symptom rating scale strongly recommended from home and school
• Vanderbilt ADHD Scale (many others available, for a fee)
If unremarkable medical history, neuro image and lab tests not indicated
If significant concern for cognitive impairment, get neuropsychological testing

Treatment: If diagnose ADHD

Mild impairment,
or no medication per family
preference

Psychosocial Treatment:
Behavior therapy
Behavior management training
(essentially more effective time outs
and rewarding positive behavior)
Social skills training
Classroom support/communication

Give parent our resource list to
explain the above treatments
(the parent handout in this guide)

Primary References:
AACAP: "Practice Parameter for the Assessment and Treatment of Children and Adolescents with Attention Deficit/Hyperactivity Disorder." *JAACAP* 46(7):July 2007:894-921
Jellinek M, Patel BP, Froehle MC eds. (2002): *Bright Futures in Practice: Mental Health-Volume I. Practice Guide*. Arlington, VA: National Center for Education in Maternal and Child Health: 203-211

Significant impairment,
or psychosocial treatments not helping

Treat substance abuse,
consider atomoxetine
trial

Active
substance
abuse?

Monotherapy with methylphenidate or
amphetamine preparation.
Titrate up every week until maximum
benefit (follow-up rating scales help)

If problem side effects or not improving,
switch to other stimulant class

If problem side effects, or not improving,
switch to atomoxetine or alpha2 agonist
monotherapy

If no improvement, reconsider diagnosis.
Medication combinations like alpha-2 agonist
plus stimulant may be reasonable at this stage.

Vanderbilt ADHD Teacher Rating Scale (page 1 of 2)

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

Completed by _____ Subject Taught (if applicable) _____

Each rating should be considered in the context of what is appropriate for the age of the child.

If you have completed a previous assessment, your rating should reflect the child's behavior since you last completed a form.

	Symptoms	Never	Occasionally	Often	Very Often	
1.	Does not pay attention to details or makes careless mistakes, such as in homework	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 instruction 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	<input type="checkbox"/>
10.	Fidgets with hands or feet or squirms in seat	0	1	2	3	
11.	Leaves seat when remaining in seated is expected	0	1	2	3	
12.	Runs about or climbs excessively when 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 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 (butts into conversations or games)	0	1	2	3	<input type="checkbox"/>
19.	Loses temper	0	1	2	3	
20.	Actively defies or refuses to comply with adults' 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 ("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	<input type="checkbox"/>

Vanderbilt ADHD Teacher Rating Scale (page 2 of 2)

Child's Name _____ Today's Date _____

	Symptoms	Never	Occasionally	Often	Very Often
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
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/her"	0	1	2	3
35.	Is sad, unhappy, or depressed	0	1	2	3

Performance	Problematic		Average		Above Average
Academic Performance					
Reading	1	2	3	4	5
Mathematics	1	2	3	4	5
Written Expression	1	2	3	4	5
Classroom Behavior					
Relationship with Peers	1	2	3	4	5
Following Directions/Rules	1	2	3	4	5
Disrupting Class	1	2	3	4	5
Assignment Completion	1	2	3	4	5
Organizational Skills	1	2	3	4	5

Comments:

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SYMPTOMS:

Number of questions scored as 2 or 3 in questions 1-9: _____
 Number of questions scored as 2 or 3 in questions 10-18: _____
 Total symptom score for questions 1-18: _____
 Number of questions scored as 2 or 3 in questions 19-28: _____
 Number of questions scored as 2 or 3 in questions 29-35: _____

Vanderbilt ADHD Parent Rating Scale (page 1 of 2)

Child's Name _____ Date of Birth _____ Grade ____ Today's Date _____

Completed by _____ Relationship to child: mom dad other: _____

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.

	Symptoms	Never	Occasionally	Often	Very Often	
1.	Does not pay attention to details or makes careless mistakes, such as in home-work	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 instruction 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	<input type="checkbox"/>
11.	Leaves seat when remaining in seated is expected	0	1	2	3	
12.	Runs about or climbs excessively when 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 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 (butts into conversations or games)	0	1	2	3	
19.	Argues with adults	0	1	2	3	
20.	Loses temper	0	1	2	3	<input type="checkbox"/>
21.	Actively defies or refuses to comply 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 vindictive	0	1	2	3	
27.	Bullies, threatens, or intimidates others	0	1	2	3	
28.	Initiates physical fights	0	1	2	3	
29.	Lies to obtain goods for favors or to avoid obligations ("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	<input type="checkbox"/>

Vanderbilt ADHD Parent Rating Scale (page 2 of 2)

Child's Name _____ Today's Date _____

	Symptoms	Never	Occasionally	Often	Very Often
32.	Has stolen things of nontrivial value	0	1	2	3
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 from problems, feels guilty	0	1	2	3
45.	Feels lonely, unwanted, or unloved; complains that "no one loves him/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	Problematic		Average		Above Average
Academic Performance					
Reading	1	2	3	4	5
Mathematics	1	2	3	4	5
Written Expression	1	2	3	4	5
Classroom Behavior					
Relationship with Peers	1	2	3	4	5
Following Directions/Rules	1	2	3	4	5
Disrupting Class	1	2	3	4	5
Assignment Completion	1	2	3	4	5
Organizational Skills	1	2	3	4	5

Comments:

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SYMPTOMS:

Number of questions scored as 2 or 3 in questions 1-9: _____

Number of questions scored as 2 or 3 in questions 10-18: _____

Total symptom score for questions 1-18: _____

Number of questions scored as 2 or 3 in questions 19-26: _____

Number of questions scored as 2 or 3 in questions 27-40: _____

Number of questions scored as 2 or 3 in questions 41-47: _____

Number of questions scored as 1 or 2 in questions 48-49: _____

Scoring the Vanderbilt ADHD Scales

The Vanderbilt rating scale is a screening and information gathering tool which can assist with making an ADHD diagnosis and with monitoring treatment effects over time. The Vanderbilt rating scale results alone do **not** make a diagnosis of ADHD or diagnose any other disorder—one must consider information from multiple sources to make a clinical diagnosis. Symptom items 1-47 are noted to be significantly present if the parent or teacher records the symptom as “often or very often” present (a 2 or 3 on the scale). The “performance” items at the end are felt to be significant if the parent or teacher records either a 1 or 2 on each item.

Parent Version

Predominantly Inattentive Subtype

Requires 6 or more counted behaviors on items 1 through 9 and a performance problem (score of 1 or 2) in any of the items on the *performance section*.

Predominantly Hyperactive/Impulsive Subtype

Requires 6 or more counted behaviors on items 10 through 18 and a performance problem (score of 1 or 2) in any of the items on the *performance section*.

Combined Subtype

Requires 6 or more counted behaviors each on both the inattention and hyperactivity/impulsivity dimensions.

Oppositional-defiant disorder

Requires 4 or more counted behaviors on items 19 through 26.

Conduct disorder

Requires 3 or more counted behaviors on items 27 through 40.

Anxiety or depression

Requires 3 or more counted behaviors on items 41 through 47.

Teacher Version

Predominantly Inattentive Subtype

Requires 6 or more counted behaviors on items 1 through 9 and a performance problem (score of 1 or 2) in any of the items on the *performance section*.

Predominantly Hyperactive/Impulsive Subtype

Requires 6 or more counted behaviors on items 10 through 18 and a performance problem (score of 1 or 2) in any of the items on the *performance section*.

Combined subtype

Requires 6 or more counted behaviors each on both the inattention and hyperactivity/impulsivity dimensions.

Oppositional defiant and conduct disorders

Requires 3 or more counted behaviors from questions 19 through 28.

Anxiety or depression

Requires 3 or more counted behaviors from questions 29 through 35.

The **performance section** is scored as indicating some impairment if a child scores 1 or 2 on at least 1 item.

ADHD Stimulant Medications

Short Acting Stimulants

Drug Name	Duration	Dosages	Usual Starting Dose	FDA Max Daily Dose
methylphenidate (Ritalin, Methylin)	4-6 hours	5, 10, 20 mg	5mg BID ½ dose if 3-5yr	60mg
dextroamphetamine (Dexedrine, DextroStat, Dexedrine SA)	4-6 hours	5, 10 mg	5mg QD-BID ½ dose if 3-5yr	40mg
amphetamine salt combo (Adderall)	4-6 hours	5, 7.5, 10, 12.5, 15, 20, 30 mg	5mg QD-BID ½ dose if 3-5 yr	40mg
dexmethylphenidate (Focalin)	4-6 hours	2.5, 5, 10 mg	2.5mg BID	20mg

Extended Release Stimulants

Drug Name	Duration	Dosages	Stimulant Class	Usual Starting Dose	FDA Max Daily Dose	Editorial Comments
Methylin ER Methylphenidate SR Metadate ER	4-8 hours	10 or 20mg tab	Methyl.	10mg QAM	60mg	Generic available. Uses wax matrix. Variable duration of action
Concerta	10-12 hours	18, 27, 36, 54 mg	Methyl.	18mg QAM	72mg	Osmotic capsule
Adderall XR	8-12 hours	5, 10, 15, 20, 25, 30 mg	Dextro.	5mg QD	30mg	Generic available. Beads in capsule can be sprinkled
Metadate CD (30% IR)	~8 hours	10, 20, 30, 40, 50, 60 mg capsules	Methyl.	10mg QAM	60mg	Beads in capsule can be sprinkled
Ritalin LA (50% IR)	~8 hours	10,20,30, 40 mg capsules	Methyl.	10mg QAM	60mg	Beads in capsule can be sprinkled
Focalin XR	10-12 hours	5, 10, 15, 20 mg	Methyl.	5mg QAM	30mg	Beads in capsule can be sprinkled
Daytrana patch	Until 3-5 hours after patch removal	10, 15, 20, 30 mg Max 30mg/9hr	Methyl.	10mg QAM	30mg	Rash can be a problem, slow AM startup, has allergy risk
Lisdexamfetamine (Vyvanse)	~10 hours	20, 30, 40, 50, 60, 70 mg	Dextro.	30mg QD	70mg	Conversion ratio from dextroamphetamine is not established

ADHD Non-Stimulant Medications

Drug Name	Duration	Dosages	Usual Starting Dose	FDA Max Daily Dose	Editorial Comments
Atomoxetine (Strattera)	All day	10, 18, 25, 40, 60, 80, 100 mg	0.5mg/kg/day (1 to 1.2 mg/kg/d usual full dosage)	Lesser of 1.4mg/kg/day or 100mg (DSHS limit is 120mg/day)	usually lower effectiveness than stimulants; has GI side effects
Clonidine (Catapres)	12 hour ½ life	0.1, 0.2, 0.3 mg	0.05mg QHS if <45kg, otherwise 0.1mg QHS Caution if <5 yr.	(Not per FDA) 27-40kg 0.2mg 40-45kg 0.3mg >45kg 0.4mg	Often given to help sleep, also treats tics, can have rebound BP effects
Clonidine XR (Kapvay)	12-16 hours	0.1, 0.2 mg	0.1mg QHS	0.4mg daily	Lower peak blood level, then acts like regular clonidine. Less potent than regular clonidine
Guanfacine (Tenex)	14 hour ½ life	1, 2 mg	0.5mg QHS if <45kg, otherwise 1mg QHS Caution if <5 yr.	(Not per FDA) 27-40kg 2mg 40-45kg 3mg >45kg 4mg	Often given to help sleep, also treats tics, can have rebound BP effects
Guanfacine XR (Intuniv)	16 hour ½ life	1, 2, 3, 4 mg	1mg QD if over 6 years old (full dosage 0.05 to 0.12mg/kg)	4mg daily	May have more even duration of action than regular Tenex

Reference: AACAP ADHD Practice Parameter (2007), Micromedex 2009

Effect size of all stimulants ~1.0

Effect size of atomoxetine ~0.7

Effect size of guanfacine ~0.65

ADHD Resources

Information for Families

Books families may find helpful:

Taking Charge of ADHD: The Complete Authoritative Guide for Parents (Revised Edition, 2000), by Russell A. Barkley, PhD

Raising Resilient Children: Fostering Strength, Hope and Optimism in Your Child (2002), by Robert Brooks, PhD and Sam Goldstein, PhD

Attention Deficit Disorder: The Unfocused Mind in Children and Adults (2006), by Tom Brown, PhD

Books children may find helpful:

Learning to Slow Down & Pay Attention: A Book for Kids about ADHD (2004), by Kathleen Nadeau, PhD, Ellen Dixon, PhD, and Charles Beyl

Jumpin' Johnny Get Back to Work! A Child's Guide to ADHD/Hyperactivity (1981), by Michael Gordon, PhD

Websites families may find helpful:

Children and Adults with ADHD

www.chadd.org (support groups, information resource)

Teach ADHD

www.teachadhd.ca (teaching advice for ADHD kids)

Parents Med Guide

www.parentsmedguide.org (quality information about medications for ADHD)

Texas Medication Project

www.dshs.state.tx.us/mhprograms/CMAPadhdED.shtm (CMAP family information)

More book and other information recommendations can be found at

www.psych.org/share/parents-med-guide.aspx

“Behavior Management Training” and “Behavior Therapy” are manual and research based therapies for ADHD related problems lasting 10-20 sessions that can be performed by a qualified therapist. These treatments, though helpful with ADHD, are usually less effective than medications. The principle elements of these treatments are:

- reviewing information about the nature of ADHD
- learning to attend carefully to both misbehavior and when child complies
- establishing a “token economy,” like sticker chart rewards
- using time out effectively
- managing non-compliant behavior in public settings
- using a daily school report card
- anticipating future misconduct