

ADD & ADHD: A Guide For Parents

McKenzie Pediatrics 2007

What Is ADHD?

ADHD is one of the most difficult disorders to diagnose and manage in children. In order to make the diagnosis of ADHD, there must be a thorough investigation to rule out other possible causes of a child's behavior. Even children with ADHD often have other mental health or learning disorders that must be recognized and dealt with separate from ADHD.

ADHD is a neurobehavioral disorder without a biological marker. Put simply, the behavior of a child with ADHD results from difficult to define neurologic "imbalances", but there is no single test that determines the diagnosis of ADHD.

ADHD occurs in 5 to 9 percent of American children, and is three times more common in boys. One-third of children with ADHD have a parent who had, or still has, ADHD. About three-fourths of children with ADHD still have the disorder by adolescence, and one-half by adulthood. It's cause is largely genetic, but environmental factors (such as maternal drug use in pregnancy, and early non-educational television viewing) do seem to play a role.

What Are The Types Of ADHD?

- **Primarily Inattentive:** Also known as ADD, or Attention Deficit Disorder without Hyperactivity. This is more common in girls, and often isn't diagnosed until later in childhood, sometimes not until the middle-school years.
- **Primarily Hyperactive:** This is the "classic" ADHD that everyone thinks about. It is more common in boys, and usually diagnosed early in the child's school career.
- **Combined Type:** Also more common in boys, this type is very likely and unfortunately over-diagnosed and over-treated in the United States.

How Is ADHD Diagnosed?

To be defined as having ADHD, a child must have the onset of symptoms before the age of 7 years. Having said this, it is very difficult to diagnose ADHD before kindergarten, as many children younger than 5 simply have age-appropriate high activity. It is not usually until the age of 4 to 5 years that a child learns to sit still when required, listen when talked to, wait their turn, or to return to a task when interrupted! Most 2 to 3 years are normally disruptive, noisy, aggressive, and hard to mind!

In evaluating for possible ADHD, the physician or psychologist will want to be certain there are no medical conditions that could be causing the child's behaviors. A brief examination, if one has not been done recently, will be necessary. The child's past medical history – including the pregnancy and birth, chronic illnesses and medications, sleep patterns, developmental history, and injury and infection history – will be obtained. The child's home environment will be assessed for past or present stresses, and the family history will be questioned for any mental health or learning disorders.

Parents and the child's teachers will be asked to complete thorough questionnaires in order to better assess the child's behaviors at home and at school. In order to meet criteria for ADHD, the child must have roughly the same degree of problem behaviors in every setting. The child who is

a model student but is “hyperactive” at home does not have ADHD, but rather inadequate structure and/or discipline in the home environment.

What Are The Long-Term Risks To ADHD?

Untreated ADHD of any type often leads to a domino-effect of problems. As the child advances in grade levels, they may fall further behind academically, leading to increased behavior problems at school and at home, and possibly depression or acting-out behaviors. They may even fail a grade. Eventually, they are at high risk of dropping out of school, or being suspended or expelled.

Untreated ADHD often also leads to high-risk behaviors such as early-onset sexual activity, with a higher risk of sexually-transmitted infections and of pregnancy, and an increase risk of early tobacco and/or alcohol abuse (studies have shown that teens with ADHD who are treated with medication have only one-half the drug use as untreated teens). Untreated teens often have more run-ins with the juvenile justice system, and have a higher risk of running away from home.

What Conditions Might Exist Along With ADHD?

Children with ADHD may also exhibit signs of Oppositional Defiant Disorder, Conduct Disorder, Learning Disabilities, and Mood Disorders such as Depression with or without Anxiety. Less common in children with ADHD is Bipolar Disorder (“manic-depression”), Obsessive-Compulsive Disorder, and Obstructive Sleep Apnea Syndrome (OSAS). Physicians are increasingly recognizing that more children than previously believed have behaviors consistent with ADHD resulting from OSAS, or other types of disordered sleep.

What Medical Conditions May Mimic ADHD?

True medical causes of ADHD behaviors are unusual, but include Bipolar Disorder, Fragile X Syndrome, Hyperthyroidism, Chronic Lead Poisoning, Seizure Disorder, Prior Meningitis, or Prior Severe Head Injury.

More common over the past few decades is ADHD caused by Fetal Alcohol Syndrome, or by exposure to tobacco and/or illicit drugs in the womb (methamphetamines, cocaine et al).

What About Medications?

Sometimes medications can be a useful part of the management of ADHD, but it is never the only answer. Medications can’t “cure” ADHD, but they may serve as “eye glasses” for the child, bringing their world into better focus.

There are a variety of medications used in the treatment of ADHD. Medications are rarely used in children under the age of 5 years. There are two main categories of medication, the methylphenidate varieties (Ritalin, Concerta et al), and the amphetamine varieties (Adderall, Dexedrine et al). Both have a paradoxical effect on children with true ADHD, working to increase the amount of some important chemicals (neurotransmitters) in the brain, which helps to slow down their activity and improve their function.

Some medications are given in long-acting forms once daily – usually in the child with Primarily Inattentive ADHD, or ADD – and others are used two or even three times daily, especially in the child with Primarily Hyperactive ADHD. The long-acting varieties tend to be more expensive.

These medications do have potential side effects that are important to recognize. We will not use them if any child with a seizure disorder, or significant tic disorder.

All of these medications cause appetite suppression for the duration that the medication is working (4 to 6 hours for the short-acting forms, 6-10 hours for the long-acting forms). Therefore, it is important that the child on medication eat a good breakfast before taking his or her morning medication, and pack a small volume, high-protein and high-calorie lunch to eat even though he or she may not feel hungry. A “rebound appetite” is sometimes seen once the medication wears off, and the child may eat more than usual for dinner. When properly monitored and managed, most children on these medications continue to gain weight as expected for their age, but this will be closely watched as part of the regular follow-up visits.

Other possible side effects include headaches and stomach aches, though both of these tend to occur only for the first few hours after the medication is taken, and usually for just the first few days that it is taken. Some jitteriness may also be noted at first – this is normal, and short-lived.

If the medication is metabolized too slowly by the child’s body, insomnia (delayed onset of sleep) will result, and a shorter-acting form of the medication or another medication will need to be tried. Each child metabolizes medications a little bit differently, and therefore it is important for the parent to monitor the duration of the medication’s effect, and report any insomnia.

If too high a dosage is given, the child may seem sad, irritable, or to lack energy. This is not acceptable, as no one wants the “life” taken out of the child. Report these effects immediately, so that a lower dosage or different medication can be recommended.

Ideally, the medication is used to help the child focus during the school day, and for enough time after school to help with completing homework or participating in extracurricular activities. Since the medication take 20 to 40 minutes to “kick-in”, be certain the child takes his medication long enough before the school day starts (but after a good breakfast!). The goal of medication is not to treat the home behavior; attempts to extend the duration of the medication into the evening will likely result in continued appetite suppression for dinner, weight loss, and insomnia with resulting poor duration of sleep and poor academic performance as a result.

About three-fourths of children with ADHD will benefit from the first medication tried, and about half of children who fail the first medication will respond to a medication from a different category. But if ADHD is NOT the correct diagnosis, taking these medications will CAUSE hyperactivity and worsening inattentiveness, in which case the medication must be discontinued immediately.

These medications (with one exception, Strattera™, a type of SSRI anti-depressant used not for depression but for ADD with mood disorders), can be used during the school week, and not given on weekends, holidays, and school breaks. Most children on these medications do well with this “stop-start” type of dosing, but know that some children might re-experience any side effects each Monday upon restarting their medication. Children active in many activities outside of school might also do better kept on the medication seven days a week, in order to improve their focus for those activities. Remember, these medications do not “cure” ADHD...the child’s original behaviors will be evident on days that they do not receive their medication. Some

children, in fact, find it difficult to be a “good kid” and student all week long, and then to be in trouble all weekend long and during school breaks. For these children, giving the medication seven days a week might be more beneficial.

After beginning medication, you will be expected to follow up with the prescribing doctor within 1 month, and to bring a new set of completed teacher and parent questionnaires so that they can be compared with the ones completed pre-medication. If things are going well, follow-up visits every 6 months are usually adequate.

These medications, again with the exception of Strattera™, are controlled substances, tightly regulated by the DEA (Drug Enforcement Agency). As such, we generally can only write for a one-month supply of pills or capsules at a time, without refills. When you are nearing an empty bottle, contact our office to request a refill, with at least 24 hours’ notice, and not after hours or on weekends! We will contact you when your child’s prescription is ready, and you will sign your initials in your child’s chart at the time you pick up the prescription. If you lose the prescription, or lose pills, we will refill it one time only. Repeat requests for refilling lost prescriptions or pills will be highly suspicious, and we will not provide another refill until 30 days since the last prescription was written. You may even be reported to local law enforcement authorities.

You will be asked to sign a Controlled Substances Contract that will spell out in detail these rules, and the consequences for breaking them.

Are There Any Herbal Remedies or Dietary Adjustments We Can Try?

The short answer is no. Many different types of herbal remedies (chamomile, kava kava, lemon balm, valerian, ginkgo, evening primrose oil, blue-green algae/spirulina, and omega-3 fatty acids) have been studied for possible treatment of the differing types of ADHD, but none (with the possible exception of the omega-3-fatty acids, which may have some benefit if taken for longer than 3 months) have proven effective. Anecdotes exist, of course, but across large numbers of children no evidence has been found of successful herbal treatment of ADHD.

Herbal remedies can be useful in the treatment of some conditions besides ADHD, but must always be used with caution. Because herbal supplements are not regulated by the FDA the purity, potency, and safety of these products can vary. Manufacturers can claim efficacy and safety without evidence from the same rigorous and lengthy testing required for medications. Besides, herbal remedies are still foreign to your body, assertions of their “natural”-ness aside.

Diet, on the other hand, can play a role in child behavior. Any parent who has seen the effects of a piece of heavily-sugared birthday cake on their child will testify to that! Certainly, for many reasons besides the effects on behavior, the amount of dietary sucrose (table sugar) should be minimized in a child’s diet. But sugar alone does not cause ADHD, though it may worsen problem behaviors.

High-fat diets also seem to worsen child behaviors when compared to children with healthier diets. Again, for many reasons it is important to learn how to prepare a healthy diet for your child day in and day out, and a healthier diet may indeed reduce some problem behaviors. But a high-fat diet alone is not the sole cause of ADHD.

Some recent studies from the United Kingdom have suggested that children with ADHD also may experience improvements in their problem behaviors by eliminating artificial colors (especially tartrazine) from their diets. However, again, there has never been evidence that food colorings actually cause ADHD.

Finally, some have advocated the use of multivitamins for the treatment of behaviors such as exhibited by children with ADHD. While a daily multivitamin is generally a great idea for good overall health, studies have not shown any evidence that vitamin supplementation reduces problem behaviors.

What Else Is Important In The Treatment Of My Child With ADHD?

Opportunities for safe, inquisitive, active, and creative play. We've somehow managed to create a society where childhood and all things that go with it are an inconvenience. Children are naturally inquisitive, impatient, noisy, adventurous, boisterous and so on. They were never designed to be caged in the house, insulated from the natural world and from creative play. Give them every opportunity to be rambunctious: go the park regularly; go for hikes or for bike rides often; sign them up for competitive or non-competitive sports; create hobby zones in the home or garage. Above all, let kids be kids.

It is also important that all children, not just those with ADHD, get adequate sleep. Get the TV out of the bedroom, permanently. Enforce a consistent bedtime, complete with an hour of winding down time (not spent playing video games) before bed. Avoid all forms of caffeine (soda, tea, coffee, chocolate, chocolate milk). Be sure they've got plenty of books to read (get a library card!) in the evening. Have consistent mealtimes, and do not allow bedtime snacking (except for fruits and/or vegetables). And enforce a lights out rule, no more than thirty minutes after they've turned in.

And be patient and supportive, though your child might at times try every last ounce of patience you have. Follow the ADHD Child's Bill of Rights:

- Help Me Focus: Teach me through my sense of touch. I need hands-on activities and body movement
- I Need To Know What Comes Next: Please give me a structured environment where there is a dependable routine. Give me advanced warnings if there will be changes.
- Wait For Me, I'm Still Thinking: Please allow me to go at my own pace. If I rush, I get confused and upset.
- I'm Stuck, I Can't Do It! Please offer me options for problem solving. I need to know the detours when the road is blocked.
- Is It Right? I Need To Know! Please give me rich and immediate feedback on how I'm doing
- I Didn't Forget, I Didn't Hear It In The First Place: Please given me directions one step at a time, and ask me to say back what I think you said.
- I Didn't Know I Wasn't In My Seat: Please remind me to stop, think, and act.
- Am I Almost Done Now? Please give me short work periods and short-term goals.
- What? Please don't say "I already told you that!" Tell me again in different words. Give me a signal. Draw me a picture.

- I Know, It's All Wrong, Isn't It? Please give me praise for even partial success. Reward me for self-improvement, not just for perfection.
- But Why Do I Always Get Yelled At? Please remind me of my good points when I'm having a bad day. Please catch me doing something right and praise me for my positive behavior.
- And Don't Forget I Love You!

We at McKenzie Pediatrics hope that this has been helpful for your understanding of ADHD, its diagnosis, and its treatment. But please realize that this handout is still just a brief summary of ADHD, and does not provide all of the information you will need to learn to manage this condition in your child in the years to come. For additional parent resources, check out:

- www.chadd.org
- www.add.org
- www.aap.org

Managing ADHD is a team effort. The players include your child, yourselves, your extended family, your child's teachers, and your child's physician and psychologist or counselor. A team plays best when everyone works together, and when everyone has a clear and consistent understanding of the plan.

As the parent, you are the quarterback of this team. The rest of us get our signals from you, so please keep in communication with all of us about how your child doing, what problems or successes he is having, and what new things are going on in his life that might require changing the playbook.

Thanks for reading.

-Dr. Todd, August 2008

Addendum:

In August 2008, the American Academy of Pediatrics issued a policy statement that was also endorsed by the American Academy of Child and Adolescent Psychiatry which recommends against the routine performance of an electrocardiogram (ECG, or more commonly known as an EKG) before starting medications for ADD or ADHD. There had been some media reporting earlier in 2008 about a recommendation from the American Heart Association supporting such testing, but the overwhelming evidence suggests that such testing is not routinely necessary. However, if you know that your child has had a previous heart rhythm disturbance or heart murmur, please inform us of this prior to beginning medication.

