

# Attention Deficit/Hyperactivity Disorder

## What is AD/HD?

AD/HD is a diagnosable, treatable, biologically based disorder. Its essential feature is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and more severe than is typically observed in individuals at a comparable level of development (e.g., same age and gender).

## What are some symptoms or behaviors associated with AD/HD?

- Having difficulty sustaining attention.
- Making careless mistakes, not paying attention to detail.
- The child with AD/HD often "doesn't seem to listen", seems tuned out.
- Children fail to follow instructions, don't get schoolwork or chores done.
- Difficulty with organization, keeping track of things.
- Losing things often -- particularly things like supplies, homework, papers, etc.
- Getting easily distracted by outside stimuli, like people talking or things going on outside the window
- Forgetting to do things -- very frequently, which means things don't get done
- Physical restlessness for some people, fidgeting, can't sit still, etc.
- Difficulty remaining seated, waiting in line, etc.
- Being physically "on the go" for some people, overactive in their behavior
- Difficulty playing quietly or co-operating within a group
- Reacting impulsively, without thinking first -- "act before you think," instead of "think before you act"!!

## How do children with AD/HD differ from those without AD/HD in regard to exhibiting these behaviors?

The symptoms of AD/HD exist on a continuum. Everybody has some of these symptoms some of the time. However, individuals with AD/HD have more of these symptoms more of the time and to the point that it interferes with their ability to function normally in academic, work and social settings, and to their potential. The difference is that for most people these behaviors are relatively infrequent and relatively mild. For people who have AD/HD these behaviors are pretty severe and consistent, so much so that it causes a significant degree of impairment in the person's ability to function. This can cause very real and serious problems at school, at home in relationships, etc. If the behaviors or symptoms are not severe enough then by definition it's *\*not\** ADHD. The severity of symptoms and degree of impairment are very real however, which is why ADHD is considered a disability under federal law.

## Is there a difference between ADD and AD/HD?

The medical diagnosis is AD/HD (Attention Deficit/Hyperactivity Disorder). Some people use ADD to mean AD/HD without the hyperactive component, however ADD is not an "official" medical diagnosis. Also many people use ADD as a more generic term, to mean all types of AD/HD.

### What are the criteria for diagnosing AD/HD?

DSM-IV Criteria for the diagnosis of AD/HD requires that:

- A) six or more symptoms of inattention have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level, OR six (or more) symptoms of hyperactivity-impulsivity have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level;
- B) Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age seven years;
- C) some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home; and
- D) there must be clear evidence of significant impairment in social, academic or occupational functioning.

### How common is AD/HD among children?

Present estimates are that between 3 and 5% of school age children in this country may manifest symptoms of AD/HD. Roughly half of those children continue to have significant levels of ADHD symptoms as adults, which means perhaps 2% or 3% of the adult population has some levels of AD/HD.

### Are there gender difference with regard to AD/HD?

There are gender differences, with males being 2 or 3 times more likely to be diagnosed than females. That doesn't mean that AD/HD is rare in girls, but boys definitely get diagnosed more often -- they tend to be more active and aggressive, disruptive.

### Is AD/HD genetic?

Yes. With regard to AD/HD it is important to keep a biological perspective in mind. Too often children with AD/HD are blamed for their symptoms and accused of not caring, being lazy, or having some character defect, etc. These accusations are unfair and also can hurt self-esteem tremendously. Also, it is grossly unfair and misleading to blame parents or teachers for the symptoms and behaviors exhibited by a child with AD/HD. Good

parenting and good teaching can make a big difference in how well the AD/HD behaviors are managed however, and how well a child with AD/HD learns to cope with the symptoms.

### **What things should parents/teachers remember when working with children with AD/HD?**

- Make the rules specific and clear....post them in writing
- Use rewards that are powerful and meaningful to the child
- Give feedback often...let them know how they're doing often!
- Help them anticipate and plan for what's coming up
- Expect that they will have good days and bad days
- Use positives and praise more than negatives.....or punishments  
Keep in mind that we are dealing with a biological problem....not a character defect!
- Maintain a sense of humor.....be patient!

### **What is involved in treating AD/HD?**

A thorough evaluation should provide a basis for developing an appropriate and comprehensive treatment program. Usually, medication alone is not enough. A comprehensive treatment plan needs to "wrap-around" the individual. Often teacher training, parent training, family therapy, or individual counseling are needed. It is imperative that the whole picture be "looked at" for treatment to be effective because AD/HD affects life at school, in the classroom, within the family, with peers and also within the person, who can have a loss of confidence and negative perceptions about him/herself based on past and repeated frustration, struggle or failure.

Although medication can be an important component of treating AD/HD, it is only one piece of a responsible treatment plan. Other equally important components of treating AD/HD include providing a supportive environment, teaching the person organizational skills, study skills, memory skills, time management skills, to learn how to be self-aware about how they learn best, and what kind of physical setting is the most productive for them to work in.

The learning of these skills can be a lengthy process that must be reinforced regularly until the desired skills become habituated into the person's life routine and can be done without thinking. The medication is very helpful in that it allows the person to be "available" to learn the skills that will be important for a more successful school career and toward having a happy, independent and productive adulthood.

Usually, students with AD/HD will require special accommodations to help them access the education a school offers, such as a place to study that suits their needs, extended time on testing, periodic one-on-one review, skill reinforcement, consistency, routine, external structure and frequent positive reinforcements from teachers, family members and other involved adults.

Because AD/HD symptoms are individual, each child needs individualized accommodations. There are no "one size fits all" plans. One can think of it like eyeglasses for people who are near-sighted. Though all need glasses, each person needs a different prescription.

 **Wouldn't children with AD/HD do okay in school if they understood that they just need to try harder in order to succeed?**

It is important for people to understand that AD/HD is a real disability that affects all aspects of a child's life, (though it does not need to be handicapping). It is important for people involved with children with AD/HD understand that they usually have to put forth enormous effort to produce close to the same results as children who do not have AD/HD. Additionally, there are now brain studies that show that when someone with AD/HD is told to "just try harder" and does, the result can be anxiety and a brain that actually starts to shut down its primary executive functions.

The AD/HD brain works even less efficiently under stress than the brain of a person without AD/HD. What that means of course is that for many people the AD/HD symptoms will get even worse during times of high stress. This is a good scientific example of why people with AD/HD can perform better in testing situations when the pressure of time limits is removed.

Certainly, no one would tell a person who has a physical disability to just use some self-discipline and try harder to get around on their own! Rather, they would be supported by providing a wheelchair and a ramp in order to give equal access to a workplace, school setting or other services. Nor can one make a paraplegic walk by applying discipline. Similarly, one can't make a person with a biologically-based lack of self-control do better by simply disciplining them.

Most children with AD/HD must be accommodated. It's not equitable to expect a person with a disability to compete with non-disabled peers by simply applying self-control to be like people without disabilities. Telling a child with AD/HD if they just tried harder and had more self-control they could remember, pay attention, be more organized, etc. without providing a supportive infrastructure is the same as ordering a physically disabled person to get up and walk. In this case accommodation is not made with a wheelchair or a ramp, but rather by developing support systems and accommodations that allow the person to do what they are capable of doing and meet the demands of the school or work setting.

Therapists, educators, and physicians routinely teach children that ADHD is a challenge, not an excuse. Medication can correct their underlying chemical imbalance, giving them a fair chance to learn, develop compensatory strategies, and face the challenges of growing up to become productive citizens. Accommodations for the disabled, as mandated by federal and state laws, are not ways of excusing people from meeting society's responsibilities, but rather make it possible for them to compete on a leveled playing field.

 **What are some treatments, accommodations or modifications that seem to work for children who exhibit AD/HD-like behaviors?**

## **Stimulant Medication**

**Stimulant medication acts as a sort of "gate-keeper" in the brain which helps the brain to better regulate the manufacture, storage and flow of its own neurotransmitters when needed by the brain.**

**Ritalin (methylphenidate) is the most commonly prescribed of the psycho-stimulant medications used for AD/HD. Others that are commonly prescribed are Dexedrine, and now Adderall. About 95% of the people who have AD/HD and take a stimulant medication obtain benefit. There are a rare few that receive no benefit from any stimulant medications and who do have "real" AD/HD.**

**Stimulant medications were first given to children with AD/HD symptoms in 1937, and have been extensively researched and studied since then. In fact, the largest body of research that exists for any medication for pediatric use is for stimulant medications.**

**Rapid-acting Ritalin starts to work within 15-20 minutes. It lasts about 3-5 hours, depending on the metabolism of the person. Ritalin is water-soluble, which means that there are no traces of the medicine left in the system once it has stopped providing beneficial effect. Because of this fact, people who are prescribed Ritalin need to re-administer it every 3-4 hours to maintain a therapeutic level. Ritalin is not physically addictive because of the quick absorption and depletion, and because of the relatively small doses prescribed for Attention Deficit/Hyperactivity Disorder.**

**Generally, the beneficial effects of Ritalin will peak about 2 hours after taking it followed by a lessening of benefits until the medicine is out of ones system. To ameliorate this "falling off" many individuals do best when they slightly overlap their doses. After a doctor gets to know a particular child's response to his/her medication and can determine when the medicine is out of the system, a dose overlap is often recommended.**

**Dexedrine Spansules and Adderall are slower releasing medications that provide a longer "window of benefit" for many people. Though the length of time someone with AD/HD will receive benefit from one of these slower acting medications varies from individual to individual, one can expect an effective therapeutic level to last approximately 5-8 hours per dose. For a variety of reasons, teenagers often do better with one of these medications.**

**Because the degree of symptoms of AD/HD are as individual as each person, the proper medication, therapeutic dosage amounts and optimal medication schedules vary from individual to individual. Body weight has no bearing on the therapeutic dose, though body weight is often used as a guideline when a medication trial is**

**started. Typical dosage amounts of regular Ritalin are 40-80mg a day, given in three to four doses, though each person's needs can vary widely. Dexedrine Spansules and Adderall dosage amounts are generally from about 10-30mg a day, given in one or two doses. Though dosage amounts are important, the timing of the daily medication schedule can be just as important to achieving positive results.**

**There are generally few side-effects from the commonly used stimulant medications. These are usually mild and short-term. The most common is a reduction of appetite, which can be regulated by taking the medication just after eating (not before).**