

# ADHD IN CHILDREN AND ADOLESCENTS

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## INTRODUCTION

Children, during stressful transitions and in chaotic family circumstances, can often display behavioral difficulties. Irritability, poor compliance to rules, difficulty completing homework assignments and paying attention in class are all common responses to emotional distress.

Complicating matters is the fact that some children in stressful environments also have Attention Deficit Hyperactivity Disorder (ADHD). ADHD is not caused by an emotionally stressful environment. All research to date supports the conclusion that ADHD is a neurological disorder caused by structural and chemical differences in brain function. These neurological differences lead young people to behave in ways that often look very similar to other behavioral disorders and can make adjustments to external challenges all the more difficult.

## ADHD v/s ADD

While some people will use the term ADD (Attention Deficit Disorder) to refer to problems of poor attention span without hyperactivity, the term ADD is no longer used by most mental health professionals. The constellation of behaviors that comprise ADHD was first identified in 1902. Since that time, many terms have been used for children who have difficulty with attention, and are impulsive and hyperactive. These terms include ADD, minimal brain dysfunction, and hyperkinetic reaction of childhood.

The Diagnostic and Statistical Manual, fourth edition (DSM-IV), established by the American Psychiatric Association, represents the most recent effort to classify psychiatric disorders. This is the manual used by most mental health professionals. The current diagnosis now lists three types of Attention Deficit/ Hyperactivity Disorder (ADHD). *ADHD - predominantly inattentive type* describes an individual who is mostly forgetful, disorganized, and easily distracted from ordinary tasks. *ADHD - predominantly hyperactive type* characterizes someone who is frequently impulsive, restless, fidgety, and talkative. *ADHD - combined type* applies to those individuals for whom both inattention and hyperactivity are present

The current criteria from DSM IV are listed below:

### **Inattentive Symptoms**

- Often fails to pay close attention to details or makes careless mistakes
- Has difficulty sustaining attention
- Does not seem to listen when spoken to directly
- Does not follow through on tasks
- Is often disorganized
- Frequently loses things
- Is easily distracted

### **Hyperactive/Impulsive Symptoms**

- Fidgets or squirms in seat
- Leaves seat in classroom or other similar situations
- Runs around or climbs excessively

In adolescents and adults, reports frequent feeling of restlessness  
Often on the go or acts as if "driven by a motor"  
Talks excessively, often loudly  
Blurts out answers  
Has difficulty waiting turns  
Interrupts or intrudes on others

## **THE ADHD BRAIN**

To understand what is happening within the brain of someone with ADHD, it is helpful to imagine the brain as a large corporation, with many offices and departments, each with a specific job to do. Raw materials are taken in, worked on, rearranged or organized in a certain way, and then sent out again. In any corporation, the executive suite monitors the activity of the rest of the corporation, prioritizes what is important and disregards that which is not. It directs the activity of the other offices and departments and plans for the future.

One way to understand ADHD is to imagine that the executive suite of the brain – which is located just behind the forehead in what is called the prefrontal lobes – does not send out signals loud enough to affect the rest of the brain. It is as if the rest of the corporation is left to react and manage on its own, with few reminders of goals, consequences and priorities. This way of understanding the ADHD brain as having a deficit in 'executive functioning' is extremely useful, and is supported by some interesting research.

It was once the case that we could only examine a brain after its owner was finished using it. Fortunately, we can now actually see some of the brain in action through the use of brain scans including PET (Positron Emission Tomography) scans. PET scans employ radioactively tagged glucose to highlight those areas of the brain that are most active. Dr. Alan Zametkin (Zametkin, et al.1993) used PET scans to demonstrate that individuals with ADHD have less activity in the prefrontal lobes than do individuals without this diagnosis (see figure 1). This supports the understanding that there is less influence from the prefrontal lobes over the rest of the brain. Less influence from the brain's executive function center means more impulsive, disorganized and disruptive behavior.

### **Clinical Example**

*Taylor is a 9 year old boy with the combined type of ADHD. He was in his friend Tim's backyard, looking at the friend's pet lizard. Though it was not a chameleon, Taylor thought it would be interesting to see if the lizard would change colors as it crawled on the grass. While Tim was bringing out some food to put in the lizard's terrarium, Taylor attempted to lift the lizard out of its container. It wriggled free and quickly scrambled beneath the back porch. It took hours to recapture the pet.*

*Later, Taylor's mother asked him, "What did we say to you about your friend's pet?" Taylor replied, "You said to leave it in the terrarium." Taylor could not explain why he had done exactly what he was warned not to do. He felt miserable that his friend's pet was endangered by his actions. He worried that Tim would stay mad at him forever and would tell all their friends what Taylor had done. However, in the moment that the idea struck him, the intriguing image that he might actually see the lizard change colors formed a powerful impulse. Without a counterbalancing signal from the executive part of his brain that would allow him to weigh the risks and recall the directions he'd been given, Taylor acted.*

Russell Barkley, one of the most active researchers in the field of ADHD, summarizes the problem this way: "ADHD is not about knowing what to do; ADHD is about doing what you know" (Barkley, 2000). Because many youth with ADHD do know exactly what they are supposed to do, it is frequently assumed that they are deliberately defying those in authority. This *may* sometimes be the case, but most often the behavior is the result of delays in the ability to inhibit impulses. A general rule of thumb is that emotional self-control in a child with ADHD is about that of a typical child two thirds as old. For example, a 12 year old with ADHD – impulsive or combined type, will have the emotional self-control of a child about 8 years old.

As you can imagine, the consequences of such a delay means that the child with impulse issues is frequently being corrected, reprimanded, and disciplined. Many such children begin to believe that they are inherently bad. They may also believe that the adults around them are hostile toward them, "for no reason". Because individuals with ADHD tend to be poor in self-monitoring, they frequently cannot see their own contribution to conflicts with others. They may feel unfairly picked on by adults and peers. This can lead to low self esteem, depression, a defensive or hostile response to requests or correction, and in some cases, a persistent oppositional and defiant attitude.

## **DIAGNOSIS**

Brain scans as described above are useful in research, but they are not practical for diagnosing ADHD. Such tests are very expensive. They require equipment not generally available in community hospitals or doctors offices. Moreover, PET scans depend on an injection of radioactive glucose, which most parents would consider unwarranted given that ADHD is not a life threatening condition. Instead, clinicians perform what could be considered a *behavior* scan. A child's behavior is described in detail through a variety of measures including questionnaires and interviews. Since ADHD is a neurological disorder and not a reaction to a particular situation, it is expected to be observed in many settings. Therefore, the child's ability to tolerate frustration, inhibit impulses, pay attention and maintain organization is assessed at home, in school, at other's homes, and in the clinician's office.

It is NOT true that all children and adolescents with ADHD are unable to concentrate or control their behavior in every situation. In fact, when frustration levels are low and rewards are frequent, ADHD is often not detectible. This is why one may not see ADHD behavior while a child is watching TV, or playing certain, well-practiced video games. It is also why some pediatricians and other medical professionals may erroneously conclude that a child with good self-control in the examination room could not have ADHD. Instead, it is when the demands of the situation call for sustaining attention or behavioral control and when the reward is distant or non-existent that one is likely to see ADHD behavior.

Moreover, an individual with ADHD does not have symptoms that are uncommon in the general population. Instead, those with ADHD have extremely high levels of very common behaviors. Therefore, the question for the clinician is how extreme are the symptoms demonstrated by a child. The questionnaires that are used have been tested or "normed" on hundreds or thousands of people with and without the diagnosis of ADHD so that the individual being evaluated can be compared to his or her peers.

Other conditions that can, in certain situations, produce symptoms that look like ADHD include: BiPolar Depressive Disorder, Learning Disabilities (because of the behavioral issues that can accompany feeling inadequate at school), Asperger's Syndrome (because of the tantrums and meltdowns), Childhood Depression (which rarely has the sedating quality of adult depression)

and even lead poisoning (which sometimes accompanies home construction or living in older homes with deteriorating paint) and thyroid dysfunction.

The diagnosis of ADHD is made after a thorough evaluation of an individual's emotional, social and academic functioning, taking into account the observations of parents, teachers and other school personnel, and other professionals. The evaluation must demonstrate that an individual's behavior exceeds the norms for his or her age on quantifiable measures AND that these symptoms cause an impairment in the individual's functioning in an important area of life AND that there are no other potential causes for the behavioral issues that are observed.

It should be noted that there are several common co-occurring diagnoses associated with ADHD. These include mood disorders, anxiety, oppositional defiant disorder, conduct disorder, learning disabilities, and substance abuse. If behavioral interventions are not effective, it is sometimes due to the presence of these other conditions.

## **PARENTS AND ADHD**

As mentioned above, ADHD is not caused by environmental factors such as poor parenting, diet, or television viewing. All reliable data point to a complex genetic pattern such that individuals with ADHD are found to cluster in families. There is also evidence to suggest that factors such as low birth weight, smoking during pregnancy, difficulties during delivery and brain trauma can lead to ADHD in some cases.

The observation that parents of children with ADHD sometimes demonstrate poor parenting is now understood as the consequence of frustration in attempting to manage ADHD symptoms, bringing out some of a parent's worst behavior and/or the consequence of untreated ADHD in the parent. In fact, it is common to find depression in parents of children with ADHD as they struggle to manage their child's behavioral difficulties. Many parents find themselves wishing they had a 'normal' child and then feeling great guilt about such feelings. Alternately, parents sometimes blame one another for their child's behavior, social issues, attitude or distress. Oftentimes, the parents become split in their response to the child's behavior such that one parent takes a protector role, while the other is critical and impatient (Everett & Everett, 1999). Siblings of children with ADHD often resent the attention and emotional demand that the affected child places on the parents.

## **TREATMENT OF ADHD**

The very good news about ADHD is that since first being identified over a century ago, ADHD is one of the best researched conditions affecting children's mental health. While the exact neural mechanisms involved have yet to be identified, we now have a great deal of knowledge about what helps individuals with ADHD to succeed.

One of the largest studies to date was completed by the National Institute of Mental Health. The Multimodal Treatment Study of Children with ADHD (MTA, 1999) compared 4 groups of children diagnosed with ADHD. The groups differed only in the care they received after diagnosis: 1) state-of-the-art psychiatric treatment (medication only); 2) an elaborate psychological treatment (including individual and family therapy, summer programs, and parenting classes); 3) a combination of medication plus the elaborate psychological treatments; and 4) referral to community clinicians.

The group receiving the combined treatments and the group receiving medication only showed significant reduction in ADHD symptoms over the 14 months that the groups were monitored. The psychotherapy group and the community referral group did not show such improvement. On other measures, specifically on parent-child relationships, academic performance, oppositional behavior and anxiety, only the combination treatment group showed significant improvement. In addition, this group was able to be prescribed slightly lower doses of medication compared to the medication only group.

This study, completed in 1999, demonstrated two essential facts about the treatment of ADHD. First, it established that medication is a powerful and important element in the remediation of ADHD symptoms. In fact, 70- 80% of children with ADHD have a positive response to psychostimulant medication. The MTA physicians carefully monitored their patients, took time to explain the medication and its effects, and actively adjusted the medication to minimize side-effects.

The second aspect of successful ADHD treatment highlighted by the MTA study was the role of behavioral treatment. Working with a professional experienced in the treatment of ADHD can make a tremendous difference in the psychological health of a youth with ADHD. Without intervention, family conflict can intensify as parents misinterpret the behavior of the child with ADHD. Many parents attempt to increase their control through yelling and escalating punishments. This often activates greater resentment and resistance on the child's part, while decreasing the affection that parent and child feel for one another. It does not take many rounds of punishment and resentment for both parties to feel alienated from one another and desperately hopeless. Good psychotherapy interrupts this pattern and moves the family onto the more useful effort to find the accommodations necessary to successfully manage ADHD symptoms. Maintaining focus on managing the symptoms of ADHD, rather than on punishing the child for behavior that is a natural reflection of his or her neurology, tends to unite rather than divide a family. It also reduces the child's feelings of failure.

## **ENVIRONMENTAL ACCOMMODATIONS**

The efforts of parents, affected child, clinician, and school personnel working together are crucial to the successful management of the symptoms of ADHD. The following areas of adaptation will reduce the frequency of conflict and the toll on the child's self-esteem.

### **Exercise**

Regular physical activity has a multifaceted beneficial effect on children and teens with ADHD. Exercise provides an outlet for the restless, undirected energy associated with ADHD. It often produces a sense of inner calm and greater focus. For this reason, teachers should avoid taking away recess as a punishment for poor behavior.

Young people are usually far more attuned than adults to the physical experience of selfhood. Feeling competent in an activity often leads to a boost in self-esteem and a general improvement in mood. Group activities give an opportunity to build positive connections with peers, though team sports need to be selected carefully since ADHD can also interfere with cooperation and reading social cues. Exercise can also reduce the delay in sleep onset often associated with ADHD.

### **Routine**

A predictable pattern for the completion of homework and other tasks helps to compensate for the internal disorganization common with ADHD. Caregivers should look to collaborate with their child in the creation of a routine for homework, chores, personal care and bedtime preparations. Strive to maintain the attitude that while the assorted tasks must be completed, the young person's suggestions for timing will be seriously considered and at least given a trial most of the time. This is a process which works best by using brainstorming and trial and error adjustments.

At most ages prior to high school, a chart or schedule can usually be employed to help guide behavior. Rewards for successful completion of various portions of the routine will most often improve compliance. The use of reward is addressed in the next section. Beginning in middle adolescence, it is often more practical to establish daily deadlines for the completion of a select number of tasks and allow the teen latitude in the exact timing of the behavior. For example, it

can be agreed that homework needs to be completed by 9 pm on nights without a sporting event or team practice.

The experience of external requirements and structure assist the young persons with ADHD in internalizing such structure over time. The habits established with parents become those that the individual tends to repeat. However, it is important to recognize that for youth with ADHD, routine can also be experienced as oppressive. Therefore, it helps overall compliance and maturation to include some 'down-time' in the daily schedule. After school free time is often essential. Choose activities that are usually restorative, not depleting. Wise choices and moderation are important. For example, shooting baskets or skateboarding for 15- 30 minutes can be helpful to some children, whereas longer periods can often leave them fatigued and cranky.

Activity choice also depends on the child's ability to transition out of the activity. It is frequently necessary to switch to other activities if a child has too much resistance to ending the activity after the allotted time has elapsed. Alternatives for down-time activities include eating a snack, watching a 30 minute television program, listening to music or reading a graphic novel (i.e. comic book).

### **Behavioral Rewards**

Children with ADHD (and most adults with the condition) have a qualitatively different experience of time. Consequences for actions seem delayed, even distant. Most cannot easily get started with projects because their motivation is minimal until the final hours before the assignment is due. Many will say, "I work better under pressure" because they depend on the 'crisis of the ticking clock' to over-come their inertia. Many will act based only on the salient features of the moment, with little regard for the big picture or the likely outcomes of their actions.

It is because of this disconnection from consequences and what looks like complete disregard of time that behavioral rewards are so essential to helping the child with ADHD. The core of executive function is the orientation to the future (Barkley, 1997). If the future chronically seems very distant and vague, then the individual often does not sufficiently make adjustments to be ready for the demands that the future will bring. Behavioral rewards are akin to large, attractive billboards which say, in effect, "You're on the right track. Keep heading this way."

Most children with ADHD are readily engaged in a comprehensive behavioral system if it is presented and structured well. The essential ingredients to an effective behavioral system are the following. One must first generate interest by asking the young person to create a 'wish list' of potential prizes to be earned. Suggest that some prizes be small ones, some large, and some be activities to be enjoyed with parent(s). Unless there are selections that are objectionable or potentially dangerous, all prizes stay on the menu of potential rewards. The caregivers are the ones to assign point values, so that very expensive items receive very high point values.

The caregivers create a chart so that two behaviors are identified to be worked on during any period. The behaviors are stated in positive form such as, "Treat family members with respect" or "Use plan for managing anger". Behavioral goals are periodically updated or modified depending on the child's success.

Each day is divided into two or three periods. For school days, three periods would be from awakening until leaving for school, returning from school until dinner, and dinner until bedtime. For non-school days and weekends, the periods are from awakening until lunch, lunch until

dinner, and dinner until bedtime. The reason for having multiple periods is to prevent the child who has a miserable morning from being unmotivated for the rest of the day.

Children are rewarded for successfully enacting their goals, so that up to two points can be awarded for each period of the day. For a three period day, this would mean a maximum of 6 points per day, 42 points per week. Caregivers would therefore designate point values for rewards such that a week of excellent behavior could achieve a prize of very modest value. Very expensive or elaborate rewards might take many months to attain. When awarding points, be sure to describe the behavior that was observed. If a child was unsuccessful in earning points, the approach to adopt is one of support and problem solving. Caregivers should express their wish for the child to earn every reward possible and offer to help their child to overcome obstacles to earning points.

It's best to decide in advance when points can be exchanged for prizes (e.g. only on weekends, or with 5 days notice if a trip to the store is required). NEVER give points to a child in advance of him/her earning them. All points must be earned to be spent. Also create a rule such that points can only be redeemed in the context of a good day. This will keep parents from providing a reward during a period of undesirable behavior.

If three periods per day are too cumbersome for a family, the number can be reduced provided that parents clearly describe the behavior that led to the points awarded.

### **Homework and School Work**

Many parents of children with ADHD describe homework as an endless battle that plagues the family each night. Children with ADHD frequently delay and resist starting their homework because the process is so boring and arduous. Work that might take the child 15 minutes can take two hours to complete. Homework issues often remain through high school. Medication can be helpful, but accommodations are usually necessary with or without medication.

One of the most important interventions is to establish good communication between parents and teachers. In the early years, it is helpful for the teacher check the accuracy of homework assignments written in the child's notebook or planner and to initial these entries after doing so. After the child completes the homework, parents check it and initial the list of assignments. Parents and teachers can also use this system to communicate via notes as needed.

In later years, such a system becomes unpalatable for students who often fear looking 'weird' having a teacher sign their planner. In these instances, parents can communicate with cooperative teachers via email. Some teachers resist this communication; they incorrectly believe that students with ADHD will become motivated on their own once they see their deficient marking period grades. As described above, most youth with ADHD cannot sufficiently motivate themselves for distant consequences and require the regular interventions of parents. Many schools use an online 'blackboard' where assignments are updated daily.

It is also helpful to establish a work space that is conducive to productive work. This usually means reducing the number of distractions, or 'shiny objects'. Shiny objects are all those activities that have greater attraction than the work that needs to be done. Ironically, these can even include activities that under other circumstances would be avoided, such as putting away clothing or cleaning under the bed. Most often, the distractions are activities like instant messaging, visiting web sites, watching videos, fighting with siblings, sleeping, listening to music without working, and texting or talking on the phone.



For these reasons it is usually very helpful for a child with ADHD to work in a space that is frequented by parents. This can include the kitchen or dining room table, or a bedroom with an open door. It is important to strike a balance between ease of supervision and number of distractions. For example, working at the kitchen table is not productive if the sound from a nearby television keeps the child from focusing on his work.

Reading assignments are frequently experienced as very tedious. Reading aloud can increase attention and memory by adding an auditory channel when processing the written material. Similarly, reading along while listening to a book on tape or CD can often be useful to children with ADHD.

Short breaks can be offered after the completion of a set amount of work. This usually produces the effect of a reward for an accomplishment rather than escaping after avoidance or fatigue. Breaks are usually best when short and involving an activity that can easily be ended. Physical activity is sometimes very helpful in restoring mental alertness.

Finally, parent involvement in tedious but necessary activities such as cleaning out backpacks, putting papers into colored folders, and transferring long-term assignments onto a calendar are often necessary accommodations to the limitations imposed by ADHD. Similarly, teachers may be asked to make accommodations as well. Since ADHD is a disability as defined by the Americans with Disability Act of 1990, students are often eligible for additional time in taking tests, preferential seating, special 'pay attention' signals known only to the child, and other helpful adjustments known as Section 504 Accommodations. A therapist or psychiatrist can usually help guide the caregivers in requesting these modifications. If ADHD affects the child's performance in school to the point that there are significant learning deficits, then parents can request a child study team evaluation with the aim of obtaining more significant alterations in the teaching, discipline and work load. If approved by the child study team, these modifications are more extensive and become part of the child's IEP or Individualized Educational Plan.

### **Caregiver Support**

One of the first things that caregivers should do upon learning of their child's ADHD diagnosis is to join a peer support network such as CHADD. National membership in CHADD provides regular email updates on topics such as educational issues, medication, self-care, and family de-stressing. In addition, there are resources on the CHADD website that help parents to avoid many of the dead-ends that are frequently touted online as cures for ADHD. Embarrassment and shame can be isolating and limit understanding.

Local chapters of CHADD offer peer support and exposure to area experts who can help with treatment needs.

Books and videos that are often very useful to parents are listed in the appendix. In caring for a child with ADHD, knowledge is one's best ally. Caregivers are advised to make it a priority to learn all that they can about the condition and the approaches that have worked for others.

It is essential that caregivers also devote time to their own needs. Work, ordinary family pressures and the extra stressors that accompany raising a child with ADHD require parents to make a deliberate effort to attend to their own needs. Time is usually limited by the multiple demands, but setting aside time for personal interests and recreation can give parents desperately needed rejuvenation.

Parents and caregivers need to make regular efforts to identify areas of competence in the child affected by ADHD. If a parent can hold the view that their child is a complete person with attributes, gifts and interests separate from ADHD, it will be easier for the child to do the same.

Similarly, it is essential that parents regularly spend time in enjoyable activities with their child. It is too often necessary to correct or admonish a child with ADHD. Parents are well served by finding games, outings, sports, hobbies and interests that allow them to spend time with their child without conflict. Even 15 minutes a day playing a game directed by the child can help build a relationship that will endure the stressors inherent in other aspects of parenting.

Finally, it is especially healing for parents to cultivate a long-term growth perspective. The maddening issues of this moment are temporary. The child will grasp this life lesson and others as they mature and their brain develops. With effort, parents can maintain perspective during the disappointments. They can come to see their child as a separate entity, with a life course that is connected but distinct from that of the parent. Parents can take responsibility for managing their own reactions to their child's behavior and not take the child's behavior as an indication of the parent's self-worth. When parents can hold this understanding and communicate it through their actions and attitude, the child with ADHD is given the most essential gift of all: to grow with dignity, self-respect and the knowledge that one is loved, flaws and all.

## ADDENDUM

When asked what ADHD *looks like*, most people can easily identify the restless, active, distractible behaviors commonly associated with ADHD. However, many people will also respond to this behavior as though it were the child's careless choice and not driven by strong internal forces. Asked what ADHD *feels like*, most people do not have a clue. The following vignettes were created to help convey what many children and adolescents with ADHD experience in common situations. I created these based upon my two decades of working with children, adolescents and adults with the diagnosis. My hope is that the vignettes may communicate some of the internal experience of ADHD for two particularly common issues: procrastination and waiting for a desired event. It is my belief that the better we can empathize with those children in our care, the better we can intervene to help them. Enjoy.

## **GUIDED VISUALIZATION: Procrastination and Disorganization in ADHD**

Imagine that you learn that you must prepare a lengthy report on something with little interest to you, for example, 'the history of septic systems'. The report will be due in nine months and there is no benefit in submitting it earlier. You estimate that collecting the necessary information and writing the paper will take approximately one month of your free time (i.e. not during working hours). When would you begin to work on the project? A very small minority would start the report immediately, preferring to be done with it and not having it hanging over their heads. However, a great many people would likely delay beginning the report until the due date was a month or so away.

Think about what will probably happen in the intervening months before beginning the work. It's likely that you will occasionally think about the report, but quickly decide that since the due date is so far off, there will be plenty of time to do the work later. It is quite possible that you might lose the piece of paper describing the assignment. Alternately, you might have assumed at the start that the assignment was so straightforward that you would have no trouble remembering the details, and so did not write down the requirements. Once you begin working on the project, it might then become apparent that you don't have a clear grasp of what is expected. Or perhaps you are sure, but in the months since you were given the assignment, your memory is faded, so that the work you do is not appropriate. It could even be the case that after 7 or 8 months, you've completely forgotten about the assignment and don't do the work at all.

Are there any other possibilities?

Now remember that for most young people (and some adults) with ADHD, two weeks might as well be nine months. As Russell Barkley describes, two of the central deficits in ADHD include the inability to accurately gauge time and difficulty using a view of the future to affect behavior in the present. All the things that are likely to happen in the long, nine month span that we started with, are likely to happen in days and weeks with school projects and homework. Materials are lost, details are forgotten, and motivation is minimal until deadlines approach. This is why external reminders and assistance with organization are such important accommodations when helping young people with ADHD.

## **GUIDED VISUALIZATION: Urgency, Impatience and ADHD**

GREAT NEWS!!!! You've won a 4 minute shopping spree in the department store of your choice. And here we are, ready to get started. In just a little while, any items you can fit into your extra large shopping cart during those precious 4 minutes will be yours. There are just a few details to go through before you get started. First, the store will not be closed down during this time so you will have to contend with regular shoppers as you maneuver this jumbo shopping car through the aisles. Oh, and today we are running a big sale, so the store is more crowded than usual. But we have all the things you really want, so this is going to be just great! One more thing, because the public may **not** know about your special opportunity, you must not reveal what you are doing, nor jostle any customers in any way or you will be disqualified. But, so long as you follow these rules anything you put in your shopping cart will be yours! Well, just so long as you make it to the finish line before the 4 minutes are up. Otherwise you lose everything. Oh, and you can't see the timer or wear a watch, but you can probably keep track of time alright. I mean, it's just 4 minutes.

In just a minute you'll get started. Meanwhile, it is true that some items are being swept off the shelves by bargain hunters, but don't worry, I am sure that there will still be plenty of good stuff left. There is just some paper work that you'll need to complete before starting. It shouldn't take very long at all. Just read pages one through ten and then answer the 20 questions that follow. Complete sentences, please.

This little scenario is designed to give a sense of the frustration and impatience that many young people with ADHD experience when being made to wait. The waiting might involve completing homework while friends play outside, or waiting for their turn at a desired activity, or for teens, getting a chance to talk with a girl or boy friend. The ability to delay gratification is reduced by a powerful internal sense of urgency. It's as if every ticking second is an opportunity lost forever. Even adults with ADHD describe this intense sense of urgency affecting them many times a day. Fortunately, most adults have developed the skills to manage it effectively. The next time your son or daughter with ADHD is finding some delay unbearable, keep in mind that the experience of waiting may not be the same as it was when you were this age.

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