



## NASSET ADHD SERIES

### Part # 2 - Characteristics of Students with ADHD

#### Introduction

The principal characteristics of ADHD are inattention, hyperactivity, and impulsivity. These symptoms appear early in a child's life. Because many normal children may have these symptoms, but at a low level, or the symptoms may be caused by another disorder, it is important that the child receive a thorough examination and appropriate diagnosis by a well-qualified professional.

Symptoms of ADHD will appear over the course of many months, often with the symptoms of impulsiveness and hyperactivity preceding those of inattention, which may not emerge for a year or more. Different symptoms may appear in different settings, depending on the demands the situation may pose for the child's self-control. A child who "can't sit still" or is otherwise disruptive will be noticeable in school, but the inattentive daydreamer may be overlooked. The impulsive child who acts before thinking may be considered just a "discipline problem," while the child who is passive or sluggish may be viewed as merely unmotivated. Yet both may have different types of ADHD. All children are sometimes restless, sometimes act without thinking, sometimes daydream the time away. When the child's hyperactivity, distractibility, poor concentration, or impulsivity begin to affect performance in school, social relationships with other children, or behavior at home, ADHD may be suspected. But because the symptoms vary so much across settings, ADHD is not easy to diagnose. This is especially true when inattentiveness is the primary symptom.

#### Subtypes of ADHD

**There are three subtypes of ADHD:**

1. Predominantly Inattentive Type
2. Predominantly Hyperactive-Impulsive Type
3. Combined Type (inattention, hyperactivity-impulsivity)

Of course, from time to time, practically every person can be a bit absent-minded, restless, fidgety, or impulsive. So why are these same patterns of behaviors considered normal for some

people and symptoms of a disorder in others? It's partly a matter of degree. With ADHD, these behaviors occur far more than occasionally. They are the rule and not the exception.

Not all children and youth have the same type of ADHD. Because the disorder varies among individuals, children with ADHD won't all have the same problems. Some may be hyperactive. Others may be under-active. Some may have great problems with attention. Others may be mildly inattentive but overly impulsive. Still others may have significant problems in all three areas (attention, hyperactivity, and impulsivity).

## Inattention

### Attention is a process. When we pay attention:

- we initiate (direct our attention to where it is needed or desired at the moment)
- we sustain (pay attention for as long as needed); we inhibit (avoid focusing on something that removes our attention from where it needs to be)
- we shift (move our attention to other things as needed).

Children with ADHD can pay attention. Their problems have to do with what they are paying attention to, for how long, and under what circumstances. It's not enough to say that a child has a problem paying attention. We need to know where the process is breaking down for the child so that appropriate individualized remedies can be created.

### With ADHD, we see three common areas of inattention problems:

- sustaining attention long enough, especially to boring, tedious, or repetitious tasks
- resisting distractions, especially to things that are more interesting or that fill in the gaps when sustained attention quits
- not paying sufficient attention, especially to details and organization

These attention difficulties result in incomplete assignments, careless errors, and messy work. Children with ADHD often tune out activities that are dull, uninteresting, or unstimulating. Their performance is inconsistent both at home and in school. Social situations are affected by frequent shifts or losing track of conversations, not listening to others, and not following directions to games or rules (APA, 2000).

Children who are inattentive have a hard time keeping their minds on any one thing and may get bored with a task after only a few minutes. If they are doing something they really enjoy, they have no trouble paying attention. But focusing deliberate, conscious attention to organizing and completing a task or learning something new is difficult.

Homework is particularly hard for these children. They will forget to write down an assignment, or leave it at school. They will forget to bring a book home, or bring the wrong one. The homework, if finally finished, is full of errors and erasures. Homework is often accompanied by frustration for both parent and child.

## Symptoms of inattention, as listed in the DSM-IV-TR, are:

- often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- often has difficulty sustaining attention in tasks or play activities
- often does not seem to listen when spoken to directly
- often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- often has difficulty organizing tasks and activities
- often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- is often easily distracted by extraneous stimuli
- is often forgetful in daily activities. (APA, 2000, p. 92)

Children diagnosed with the Predominantly Inattentive Type of ADHD are seldom impulsive or hyperactive, yet they have significant problems paying attention. They appear to be daydreaming, "spacey," easily confused, slow moving, and lethargic. They may have difficulty processing information as quickly and accurately as other children.

When the teacher gives oral or even written instructions, this child has a hard time understanding what he or she is supposed to do and makes frequent mistakes. Yet the child may sit quietly, unobtrusively, and even appear to be working but not fully attending to or understanding the task and the instructions.

These children don't show significant problems with impulsivity and over-activity in the classroom, on the school ground, or at home. They may get along better with other children than the more impulsive and hyperactive types of ADHD, and they may not have the same sorts of social problems so common with the combined type of ADHD. So often their problems with inattention are overlooked. But they need help just as much as children with other types of ADHD, who cause more obvious problems in the classroom.

## Hyperactivity

Excessive activity is the most visible sign of ADHD. Studies show that these children are more active than those without the disorder, even during sleep. The greatest differences are usually seen in school settings (Barkley, 2000). Many parents find their toddlers and preschoolers quite active. Care must be given before labeling a young one as hyperactive.

At this developmental stage, a comparison should be made between the child and his or her same-age peers without ADHD. In young children, usually the hyperactivity of ADHD will come across as "always on the go" or "motor driven." You may see behaviors such as darting out of the house or into the street, excessive climbing, and less time spent with any one toy. In elementary years, children with ADHD will be more fidgety and squirmy than their same-age peers who do not have the disorder. They also are up and out of their seats more. Adolescents and adults feel more restless and bothered by quiet activities. At all ages, excessive and loud talking may be apparent. (APA, 2000).

Hyperactive children always seem to be "on the go" or constantly in motion. They dash around touching or playing with whatever is in sight, or talk incessantly. Sitting still at dinner or during a school lesson or story can be a difficult task. They squirm and fidget in their seats or roam around the room. Or they may wiggle their feet, touch everything, or noisily tap their pencil. Hyperactive teenagers or adults may feel internally restless. They often report needing to stay busy and may try to do several things at once.

### **Symptoms of hyperactivity, as listed in the DSM-IV-TR, are:**

- often fidgets with hands or feet or squirms in seat
- often leaves seat in classroom or in other situations in which remaining seated is expected
- often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- often has difficulty playing or engaging in leisure activities quietly
- is often "on the go" or often acts as if "driven by a motor"
- often talks excessively. (APA, 2000, p. 92)

## **Impulsivity**

Children and youth with ADHD often act without fully considering the circumstances or the consequences. Actually, thinking about the potential outcomes of their actions before the fact often does not even cross their minds. Their neurobiologically caused problem with impulsivity makes it hard to delay gratification. Waiting even a little while is too much for their biological drive to have it now.

The impulsivity leads these children to speak out of turn, interrupt others, and engage in what looks like risk-taking behavior. The child may run across the street without looking or climb to the top of very tall trees. Although such behavior is risky, the child is not so much a risk-taker as a child who has great difficulty controlling impulse and anticipating consequences. Often, the child is surprised to discover that he or she has gotten into a dangerous situation and has no idea of how to get out of it. Some studies show that these children are more accident prone, particularly those youth who are somewhat stubborn or defiant (Barkley, 2000).

Impulsive children seem unable to curb their immediate reactions or think before they act. They will often blurt out inappropriate comments, display their emotions without restraint, and act without regard for the later consequences of their conduct. Their impulsivity may make it hard for them to wait for things they want or to take their turn in games. They may grab a toy from another child or hit when they're upset. Even as teenagers or adults, they may impulsively choose to do things that have an immediate but small payoff rather than engage in activities that may take more effort yet provide much greater but delayed rewards.

### **Symptoms of impulsivity, as listed in the DSM-IV-TR (APA, 2000, p. 92), are:**

- often blurts out answers before questions have been completed
- often has difficulty awaiting turn
- often interrupts or intrudes on others (e.g., butts into conversations or games)

## Other Characteristics of Students with ADHD

Research is showing us that ADHD impairs the brain's executive function ability. It's as if the brain has too many workers but no boss to direct or guide them. When the brain's executive function abilities operate appropriately, we think, plan, organize, direct, and monitor our thoughts and activities. In essence, our brain has a capable executive or boss. Of course, none of us is born being our own executive. We acquire these skills as our brains develop and mature. Until we are able to monitor and regulate our own activities and lives, we rely on people and things outside of ourselves to guide and direct us.

Puberty marks the time when we become increasingly "brain-able" to be our own boss. Our executive abilities also help us to concentrate longer and to keep track of our thoughts, especially those we need later. We are less distracted by our own thoughts and find it much easier to return to work after we've been distracted.

The brain's executive abilities also help us inhibit, or control, behavior. Inhibition is the ability to delay or pause before acting or doing. It allows us to regulate our thoughts, actions, and feelings. This self-regulation or self-control helps us manage or limit behavior. We learn to say "not now" or "not a good idea" to impulse. We learn to control our activity levels to meet situational demands. For example, to yell at a ball game is fine (unless we are shouting in someone's ear). Yelling in a classroom is usually not okay.

Thanks to our brain's executive abilities, we become driven more by intention than impulse. That means we pause and reflect before we act. For instance, we are able to consider the demands of a situation along with the rules. We can delay an immediate reward in order to hold out for a later reward that's more meaningful.

With ADHD, the very brain areas responsible for executive function and inhibition are impaired. Children with ADHD can be considered hyper-responsive, because they behave too much. They are more likely to respond to events that others usually overlook (Barkley, 2000). Their characteristic disinhibition often causes others to find them annoying, irritating, or exasperating.

Obviously, executive function difficulties can create distress and problems with daily functioning, including emotional control. In addition to symptoms of inattention, impulsivity, and hyperactivity, you may also see these types of executive function problems:

- weak problem solving
- poor sense of time and timing
- inconsistency
- difficulty resisting distraction
- difficulty delaying gratification
- problems working toward long-term goals
- low "boiling point" for frustration, emotional over-reactivity
- changeable mood
- poor judgment

## **Self-Control and Self-Regulation Problems Seen in Students with ADHD - Are They a Matter of Deliberate Choice?**

It's important to remember that the self-control and self-regulation problems seen in students with ADHD are not a matter of deliberate choice. These problems are caused by neurological events or conditions. People with ADHD know how to behave. They generally know what is expected in a given situation. But they run into trouble at the point of performance—that moment in time when they must inhibit behavior to meet situational demands. Their troubles may show up in how they act in the outside world, or in their internal selves. They characteristically have inconsistent performance. This inconsistency is often mistaken for a lack of regard or respect, or as a lack of effort.

Because of inhibition problems, the disorder also makes it hard for the young person to follow the rules, especially if the rules are not crystal clear. Children with ADHD usually need a lot of incentive to follow the rules, too. That doesn't mean that they are intentionally bratty or demanding. When a child's executive and inhibition mechanisms are not functioning fully or normally, then we need to provide external incentives to pump up the child's ability to inhibit thoughts, feelings, and actions.

Performance usually improves when external guides, rewards, and incentives are provided. These might include step-by-step approaches, extra praise and encouragement, and the chance to earn special privileges for better performance.

## **Problems Experienced by Children with ADHD Throughout the Lifespan**

ADHD is determined by the number of symptoms present and the extent of the difficulty these cause. Also, the number of symptoms and the problems they cause may change across the life span. In a small number of cases, ADHD does go away in adolescence or adult years. However, in most cases, the problems shift. A hyperactive-impulsive fourteen year old may be able to stay seated longer than he or she could at age nine.

While problems caused by hyperactivity-impulsivity seem to lessen with age, other ADHD-related symptoms usually become more problematic. For instance, demands for longer periods of sustained attention increase with age. So, for example, even though a fourteen year old may sit still during a lengthy reading assignment, he or she may be bothered by an inability to concentrate.

The behaviors associated with ADHD change as children grow older. For example, a preschool child may show gross motor over-activity always running or climbing and frequently shifting from one activity to another. Older children may be restless and fidget in their seats or play with their chairs and desks. They frequently fail to finish their schoolwork, or they work carelessly. Adolescents with ADHD tend to be more withdrawn and less communicative. They are often impulsive, reacting spontaneously without regard to previous plans or necessary tasks and homework.



## Conclusion

According to the fourth edition of the Diagnostic Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association (APA) (1994), ADHD can be defined by behaviors exhibited. Individuals with ADHD exhibit combinations of the following behaviors:

- Fidgeting with hands or feet or squirming in their seat (adolescents with ADHD may appear restless)
- Difficulty remaining seated when required to do so
- Difficulty sustaining attention and waiting for a turn in tasks, games, or group situations
- Blurting out answers to questions before the questions have been completed
- Difficulty following through on instructions and in organizing tasks
- Shifting from one unfinished activity to another
- Failing to give close attention to details and avoiding careless mistakes
- Losing things necessary for tasks or activities
- Difficulty in listening to others without being distracted or interrupting
- Wide ranges in mood swings
- Great difficulty in delaying gratification

Children with ADHD show different combinations of these behaviors and typically exhibit behavior that is classified into two main categories: poor sustained attention and hyperactivity-impulsiveness. Three subtypes of the disorder have been described in the DSM-IV: predominantly inattentive, predominantly hyperactive-impulsive, and combined types (American Psychiatric Association [APA] as cited in Barkley, 1997). For instance, children with ADHD, without hyperactivity and impulsivity, do not show excessive activity or fidgeting but instead may daydream, act lethargic or restless, and frequently do not finish their academic work. Not all of these behaviors appear in all situations. A child with ADHD may be able to focus when he or she is receiving frequent reinforcement or is under very strict control. The ability to focus is also common in new settings or while interacting one-on-one. While other children may occasionally show some signs of these behaviors, in children with ADHD the symptoms are more frequent and more severe than in other children of the same age.

Although many children have only ADHD, others have additional academic or behavioral diagnoses. For instance, it has been documented that approximately a quarter to one-third of all children with ADHD also have learning disabilities (Forness & Kavale, 2001; Robelia, 1997; Schiller, 1996), with studies finding populations where the comorbidity ranges from 7 to 92 percent (DuPaul & Stoner, 1994; Osman, 2000). Likewise, children with ADHD have coexisting psychiatric disorders at a much higher rate. Across studies, the rate of conduct or oppositional defiant disorders varied from 43 to 93 percent and anxiety or mood disorders from 13 to 51 percent (Burt, Krueger, McGue, & Iacono, 2001; Forness, Kavale, & San Miguel, 1998; Jensen, Martin, & Cantwell, 1997; Jensen, Shertvette, Zenakis, & Ritchens, 1993). National data on children who receive special education confirm this co-morbidity with other identified disabilities. Among parents of children age 6-13 years who have an emotional disturbance, 65 percent report their children also have ADHD. Parents of 28 percent of children with learning disabilities report their children also have ADHD (Wagner & Blackorby, 2002).

When selecting and implementing successful instructional strategies and practices, it is imperative to understand the characteristics of the child, including those pertaining to disabilities or diagnoses. This knowledge will be useful in the evaluation and implementation of successful practices, which are often the same practices that benefit students without ADHD.