

## Attention-Deficit/Hyperactivity Disorder (ADHD)

Attention-deficit hyperactivity disorder (ADHD) is one of the most common reasons children are referred for mental health services. It affects as many as one in every 20 children.<sup>[i]</sup> Although boys are three to four times more likely than girls to experience ADHD, the disorder affects both boys and girls.

### What Are the Signs and Symptoms?

There are three main types of ADHD. One type is characterized by inattentiveness, one type is characterized by hyperactive or impulsive behavior, and the third type is combined—when children exhibit signs of both types. Symptoms are often unnoticed until a child enters school. <sup>[ii]</sup> To be diagnosed with ADHD, a child must show symptoms in at least two settings, such as home and school, and the symptoms must interfere with the child's ability to function at home or school for at least six months. Specialists have agreed that at least six symptoms from the following lists must be present for an accurate diagnosis, and symptoms must begin by age 7.

#### Signs of Inattentive Behavior

- Difficulty following instructions
- Difficulty focusing on tasks
- Losing things at school and at home
- Forgetting to complete homework or tasks
- Becoming easily distracted or having difficulty listening
- Lacking attention to detail, making careless mistakes or being disorganized

#### Signs of Hyperactive Behavior

- Fidgeting excessively
- Difficulty staying seated
- Running or climbing inappropriately
- Talking excessively
- Difficulty playing quietly
- Always seeming to be “on the go”
- Having trouble waiting his or her turn
- Interrupting or intruding on others
- Blurting out answers or frequently interrupting

The presence of some symptoms, however, does not confirm a diagnosis of ADHD. Just because a child has a lot of energy or difficulty-paying attention in school does not mean the child has ADHD. An accurate diagnosis relies on the presence of a range of symptoms and difficulties that prevent the child from performing at an appropriate level for his or her age and intelligence level. Teachers often first observe these issues, and their input should be considered seriously

### How Does ADHD Affect School and Social Life?

Symptoms of ADHD - such as trouble sitting still, paying attention to details, and listening - can make school difficult for a child with ADHD. Although most children with ADHD have normal or above-normal intelligence, 40 to 60 percent have serious learning difficulties. Many others have specific problems with schoolwork or maintaining good grades, and face particular challenges with assignments and tests that require focused attention or lengthy writing, or have time limits. On a social level, children with ADHD often have trouble developing meaningful relationships with peers and family members. Other children may find it frustrating to play with a child who has ADHD, because classic symptoms include difficulty following rules, waiting one's turn, or excessive talking.

### What Other Disorders Commonly Occur With ADHD?

Children and adolescents with ADHD are more likely than children without the disorder to suffer from other mental disorders. About one-half of all young people with ADHD have oppositional defiant disorder; about

one-quarter have an anxiety disorder; and as many as one-third have depression and one-fifth have bipolar disorder. Adolescents with untreated ADHD are at risk for substance abuse disorders. Research shows that young people treated for ADHD have lower rates of substance abuse than children who go untreated. [iii]

### **What Causes ADHD?**

ADHD is nobody's fault. Researchers believe that biology plays a large role in the development of ADHD. Thirty to 40 percent of children diagnosed with ADHD have relatives with the same disorder, suggesting that genes are at least partly responsible. [iv] Brain scans reveal that the brains of children with ADHD differ from those of children without the disorder. [v] Children with ADHD are thought to have problems with the part of the brain that controls the organization and direction of thought and behavior.

### **What Can Parents and Caregivers Do?**

Parents and other caregivers play a crucial role in ensuring that their child receives the care that he or she needs. Children with symptoms of ADHD should be referred to and evaluated by a mental health professional that specializes in treating children, unless your primary care doctor has experience in treating this disorder. The diagnostic evaluation should include behavioral observation in the classroom and at home. A comprehensive treatment plan should be developed with the family, and, whenever possible, the child should be involved in making treatment decisions. Educational testing should be performed when learning disabilities are present.

### **Treatment for ADHD is Effective for Most Children.**

Early identification, diagnosis and treatment help children reach their full potential. The most effective treatments for ADHD include a combination of medication, behavioral therapy, and parental support and education. Nine out of ten children respond to medication, and 50 percent of children who do not respond to an initial medication will respond to a second. When ADHD co-occurs with another disorder, such as depression or anxiety, a combination of medication and psychotherapy is shown to be particularly effective. [vi] Although the value of medication has been well documented, parents should feel free to discuss any concerns about medication use with the child's doctor.

### **If Your Child or a Child You Know is Diagnosed With ADHD, Be Patient.**

Even with treatment, symptoms may take time to improve. Instill a sense of competence in the child or adolescent. Promote his or her strengths, talents and feelings of self-worth. Remember that the side effects of untreated ADHD (such as failure, frustration, discouragement, social isolation, low self-esteem and depression) may cause more problems than the disorder itself.

### **For More Information**

For a free and confidential mental health screening, go on-line to [www.mhacolorado.org](http://www.mhacolorado.org).

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[i] US Department of Health and Human Services. Mental Health: A Report of the Surgeon General. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999

[ii] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (4th ed.). Washington, DC: American Psychiatric Association; 1994.

[iii] Biederman J, Wilens T, Mick E, Spencer T, Faraone SV. Pharmacotherapy of attention-deficit/hyperactivity disorder reduces risk for substance use disorder. *Pediatrics*. 1999; 104:20.

[iv] Biederman J, Faraone S, Mick E, Lelon E. Psychiatric comorbidity among referred juveniles with major depression: fact or artifact? *Journal of the Academy of Child and Adolescent Psychiatry*. 1995; 34:579-590.

[v] National Institute of Mental Health. Neuroimaging. <http://www.nimh.nih.gov/publicat/adhdqa.cfm> (April 2000).

[vi] MTA Cooperative Group. A 14-month randomized clinical trial of treatment strategies for Attention Deficit Hyperactivity Disorder. Paper presented at the annual meeting of the American Academy of Child and Adolescent Psychiatry, Anaheim, California: October 1998.