This fact sheet summarizes basic information on Attention Deficit Disorders (ADD), including prevalence and characteristics, causes, identification, treatment, outcomes, and suggestions. Children with ADD comprise approximately 3-5 percent of the school age population, with boys significantly outnumbering girls. Of 14 characteristics of ADD, the presence of at least eight are required for an ADD diagnosis. Hyperactivity may or may not be present. Causes of ADD are unclear though recent biochemical studies show promise. The identification and diagnosis of children with ADD requires the assessment of a wide range of domains with a variety of measures. Most experts agree that a multimodality approach aimed at assisting the child medically, psychologically, educationally, and behaviorally is most effective. Drug therapy is often one part of a treatment program. ADD appears to be an extremely stable condition, with about 80 percent of young children with ADD also meeting ADD criteria in adolescence. Coexisting psychiatric, behavioral, or learning disabilities are common. (Contains a bibliography of 12 print materials for parents and teachers and 7 books and videos for children.) (DB)
Children With Attention Deficit Disorders
ADD Fact Sheet

Prevalence and Characteristics of ADD
Current interest in Attention Deficit Disorders (ADD*) is soaring. Magazine articles, newspaper reports, network newscasts, and television talk show hosts have found this to be a timely topic. Scientific journals report thousands of studies of ADD children and youth and ADD support groups continue to grow at an astounding rate as parents seek to learn more about this disorder in an effort to help their youngsters succeed at home and at school. Children with ADD are characterized by symptoms of inattention, impulsivity, and sometimes, hyperactivity which have an onset before age seven and which persist for at least six months. These children comprise approximately 3-5% of the school age population with boys significantly outnumbering girls.

In order to receive a diagnosis of ADD a child must exhibit at least eight of the following characteristics for a duration of at least six months with onset before age seven:

Characteristics of ADD
1. often fidgets with hands or feet or squirm in seat (in adolescence may be limited to subjective feelings of restlessness)
2. has difficulty remaining seated when required to do so
3. is easily distracted by extraneous stimuli
4. has difficulty awaiting turns in games or group situations
5. often blurts out answers to questions before they have been completed
6. has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension)
7. has difficulty sustaining attention in tasks or play activities
8. often shifts from one uncompleted activity to another
9. has difficulty playing quietly
10. often talks excessively
11. often interrupts or intrudes on others, e.g. butts into other children's games
12. often does not seem to listen to what is being said to him or her
13. often loses things necessary for tasks or activities at school or at home (e.g. toys, pencils, books)
14. often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking) e.g. runs into street without looking

A second diagnosis, Undifferentiated Attention Deficit Disorder, refers to those children who exhibit disturbances in which the primary characteristic is significant inattentiveness without signs of hyperactivity. Recent studies of this group of ADD children without hyperactivity indicates that they tend to show more signs of anxiety and learning problems, qualitatively different inattention, and may have different outcomes than the hyperactive group.

Causes of ADD
There are still many unanswered questions as to the cause of ADD. Over the years the presence of ADD has been weakly associated with a variety of conditions including: prenatal and/or perinatal trauma, maturational delay, environmentally caused toxicity such as fetal alcohol syndrome or lead toxicity, and food allergies. History of such conditions may be found in some individuals with ADD, however, in most cases there is no history of any of the above.

Recently, researchers have turned their attention to altered brain biochemistry as a cause of ADD and presume differences in biochemistry may be the cause of poor regulation of attention, impulsivity and motor activity. A recent landmark study by Dr. Alan Zametkin and researchers at NIMH have traced ADD for the first time to a specific metabolic abnormality in the brain. A great deal more research has to be done to reach more definitive answers.

Identification of ADD
The identification and diagnosis of children with ADD requires a combination of clinical judgement and objective assessment. Since there is a high rate of co-existence of ADD with other psychiatric disorders of childhood and adolescence any comprehensive assessment should include an evaluation of the individual's medical, psychological, educational and behavioral functioning. The more domains assessed the greater certainty there can be of a comprehensive, valid and reliable diagnosis. The taking of a detailed history, including medical, family, psychological, developmental social and educational factors is essential in order to establish a pattern of chronicity and pervasiveness of symptoms. Augmenting the history are the standardized parent and teacher behavioral rating scales which are essential to quantifiably assess the normality of the individual with respect to adaptive functioning in a variety of settings such as home and school. Psychoeducational assessment investigating intellectual functioning and cognitive processes including reasoning skills, use of language, perception, attention, memory, and visual-motor functioning as well as academic achievement should often be performed.

Treatment of ADD
Most experts agree that a multi-modality approach to treatment of the disorder aimed at assisting the child medically, psychologically, educationally and behavior is often needed. This requires the coordinated efforts of a team of health care professionals, educators and parents who work together to identify treatment goals, design and implement interventions and evaluate the results of their efforts.

Medications used to treat ADD are no longer limited to psychostimulants such as methylphenidate (Ritalin), dextroamphetamine (Dexedrine) and pemoline (Cylert) which have been shown to have dramatically positive effects on attention, overactivity, and motor skills and even aggression in 70% or more ADD children. In the past several years the
tricyclic antidepressant medications, imipramine (Tofranil), and norpramine (Desipramine), have been studied and used clinically to treat the disorder with other types of antidepressants: fluoxetine, chlorimipramine and buproprion much less frequently prescribed. Clonidine (Catapress), antihypertensive, and carbamazepine (Tegretol), an anticonvulsant, have been shown to be effective for some children as well.

Ideally, treatment should also include consideration of the individual's psychological adjustment targeting problems involving self-esteem, anxiety and difficulties with family and peer interaction. Frequently family therapy is useful along with behavioral and cognitive interventions to improve behavior, attention span, and social skills. Educational interventions such as accommodations made within the regular education classroom, compensatory educational instruction or placement in special education may be required depending upon the particular child's needs.

Outcome of ADD

ADD is an extremely stable condition with approximately eighty percent of young children diagnosed ADD also meeting criteria for an ADD diagnosis when reevaluated in adolescence. Unfortunately, ADD does not often occur in isolation from other psychiatric disorders and many ADD children have co-existing oppositional and conduct disorders with a smaller number (probably less than 25%) having a learning disability. Studies indicate that ADD students have a far greater likelihood of grade retention, school drop out, academic underachievement and social and emotional adjustment difficulties.

Most experts agree, however that the risk for poor outcome of ADD children and adolescents can be reduced through early identification and treatment. By recognizing the disorder early and taking the appropriate steps to assist the ADD child and family many of the negatives commonly experienced by the child can be avoided or minimized so as to protect self-esteem and avoid a chronic pattern of frustration, discouragement and failure.

While the hard facts about attentional deficits give us good reason to be concerned about ADD children, the voice of advocating parents coupled with the commitment of educated health care professionals and educators provide us with hope for the future well-being of this population of deserving youth.

Important Points To Remember

1. ADD children make up 3 - 5% of the population. A thorough evaluation can help determine whether attentional deficits are due to ADD or to other factors.

2. Once identified, ADD children are best treated with a multi-modal approach. Best results are obtained when medication, behavioral management programs, educational interventions, parent training, and counseling, when needed, are used together to help the ADD child. Parents of ADD children and adolescents play the key role of coordinating these services.

3. Teachers play an essential role in helping the ADD child feel comfortable within the classroom despite their difficulties. Adjustments in classroom procedures and work demands, sensitivity to self-esteem issues, and frequent parent-teacher contact can help a great deal.

4. ADD may be a life-long disorder requiring life-long assistance. Families, and the children themselves, need continued support and understanding.

Suggested Reading For Parents and Teachers


Phelan, Thomas W. ADHD Video Parts I & II. Child Management, 1991 (Video and Book)

Swanson, James. School Based Interventions. 1992


Books and Videos for Children


For Further Information About ADD contact:

CH.A.D.D.

Children With Attention Deficit Disorders
499 Northwest 70th Avenue, Suite 308
Plantation, Florida 33317
(305) 587-3700

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The terms ADD and ADHD are used synonymously in this paper.