# Information about:

# Attention Deficit/ Hyperactivity Disorder (ADD/ADHD) Revised 2013



## Introduction

Information About Attention-Deficit/Hyperactivity Disorder (ADD/ADHD) is part of a series of information packets developed by the Vermont Family Network (VFN). Designed to provide basic information, the packet includes fact sheets, articles, advocacy tips, and resources for families of children with special needs and for the professionals working with them.

After reading the packet, we hope that you'll have a greater understanding of attention-deficit/hyperactivity disorder (ADD/ADHD) and the ways in which parents and professionals can support children at home, in school, and in the community. We've selected information from a variety of sources, and many articles are on the Internet.

Thank you to BEST (Building Effective Strategies for Teaching), Vermont Agency of Education, for making this publication possible. Thanks also go to the organizations and authors who gave us permission to use their articles and fact sheets. Use of any specific articles in this packet is meant for information purposes only and doesn't indicate any endorsement on the part of VFN of the views and opinions of the authors.

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# Attention-Deficit/Hyperactivity Disorder

## What is attention-deficit/hyperactivity disorder?

Attention-deficit/hyperactivity disorder (ADHD) is an illness characterized by inattention, hyperactivity, and impulsivity. The most commonly diagnosed behavior disorder in young persons, ADHD affects an estimated three percent to five percent of school-age children.

Although ADHD is usually diagnosed in childhood, it is not a disorder limited to children -- ADHD often persists into adolescence and adulthood and is frequently not diagnosed until later years.

## What are the symptoms of ADHD?

There are actually three different types of ADHD, each with different symptoms: predominantly inattentive, predominantly hyperactive/impulsive, and combined.

## Those with the predominantly inattentive type often:

- fail to pay close attention to details or make careless mistakes in schoolwork, work, or other activities
- have difficulty sustaining attention to tasks or leisure activities
- do not seem to listen when spoken to directly
- do not follow through on instructions and fail to finish schoolwork, chores, or duties in the workplace
- have difficulty organizing tasks and activities
- avoid, dislike, or are reluctant to engage in tasks that require sustained mental effort
- lose things necessary for tasks or activities
- are easily distracted by extraneous stimuli
- are forgetful in daily activities

## Those with the predominantly hyperactive/impulsive type often:

- fidget with their hands or feet or squirm in their seat
- leave their seat in situations in which remaining seated is expected
- move excessively or feel restless during situations in which such behavior is inappropriate
- have difficulty engaging in leisure activities quietly
- are "on the go" or act as if "driven by a motor"
- talk excessively
- blurt out answers before questions have been completed
- have difficulty awaiting their turn
- interrupt or intrude on others

Those with the combined type, the most common type of ADHD, have a combination of the inattentive and hyperactive/impulsive symptoms.

## What is needed to make a diagnosis of ADHD?

A diagnosis of ADHD is made when an individual displays at least six symptoms from either of the above lists, with some symptoms having started before age seven. Clear impairment in at least two settings, such as home and school or work, must also exist. Additionally, there must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

#### How common is ADHD?

ADHD affects an estimated two million American children, an average of at least one child in every U.S. classroom. In general, boys with ADHD have been shown to outnumber girls with the disorder by a rate of about three to one. The combined type of ADHD is the most common in elementary school-aged boys; the predominantly inattentive type is found more often in adolescent girls.

While there is no specific data on the rates of ADHD in adults, the disorder is sometimes not diagnosed until adolescence or adulthood, and half of the children with ADHD retain symptoms of the disorder throughout their adult lives. (It is generally believed that older individuals diagnosed with ADHD have had elements of the disorder since childhood.)

## What is ADD? Is it different than ADHD?

This is a question that has become increasingly difficult to answer simply. ADHD, or attention-deficit/hyperactivity disorder, is the only clinically diagnosed term for disorders characterized by inattention, hyperactivity, and impulsivity used in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorder, Fourth Edition, the diagnostic "bible" of psychiatry. However (and this is where things get tricky), ADD, or attention-deficit disorder, is a term that has become increasingly popular among laypersons, the media, and even some professionals. Some use the term ADD as an umbrella term -- after all, ADHD is an attention-deficit disorder. Others use the term ADD to refer to the predominantly inattentive type of ADHD, since that type does not feature hyperactive symptoms. Lastly, some simply use the terms ADD and ADHD interchangeably. The bottom line is that when people speak of ADD or ADHD, they generally mean the same thing. However, only ADHD is the "official" term.

#### Is ADHD associated with other disorders?

Yes. In fact, symptoms like those of ADHD are often mistaken for or found occurring with other neurological, biological, and behavioral disorders. Nearly half of all children with ADHD (especially boys) tend to also have oppositional defiant disorder, characterized by negative, hostile, and defiant behavior. Conduct disorder (marked by aggression towards people and animals. destruction of property, deceitfulness or theft, and serious rule-breaking) is found to co-occur in an estimated 40 percent of children with ADHD. Approximately one-fourth of children with ADHD (mostly younger children and boys) also experience anxiety and depression. And, at least 25 percent of children with ADHD suffer from some type of communication/learning disability. There is additionally a correlation between Tourette's syndrome, a neurobiological disorder characterized by motor and vocal tics, and ADHD -only a small percentage of those with ADHD also have Tourette's, but at least half of those with Tourette's also have ADHD. Research is also beginning to show that ADHD-like symptoms are sometimes actually manifestations of childhood-onset bipolar disorder.

## What causes ADHD?

First of all, it is important to realize that ADHD is not caused by dysfunctional parenting, and those with ADHD do not merely lack intelligence or discipline.

Strong scientific evidence supports the conclusion that ADHD is a biologically-based disorder. Recently, National Institute of Mental Health researchers using PET scans have observed significantly lower metabolic activity in regions of the brain controlling attention, social judgment, and movement in those with ADHD than in those without the disorder. Biological studies also suggest that children with ADHD may have lower levels of the neurotransmitter dopamine in critical regions of the brain.

Other theories suggest that cigarette, alcohol, and drug use during pregnancy or exposure to environmental toxins such as lead may be linked to the development of ADHD. Research also suggests a strong genetic basis to ADHD -- the disorder tends to run in families. In addition, research has shown that certain forms of genes related to the dopamine neurotransmitter system are linked to increased likelihood of the disorder.

While early theories suggested that ADHD may be caused by minor head injuries or brain damage resulting from infections or complications at birth, research found this hypothesis to lack substantial supportive evidence.

## What causes ADHD? (continued)

Furthermore, scientific studies have not verified dietary factors, another widely discussed possible influence for the development of ADHD, as a main cause of the disorder.

## How can ADHD be treated?

Many treatments -- some with good scientific basis, some without -- have been recommended for individuals with ADHD. The most proven treatments are medication and behavioral therapy.

## Medication

Stimulants are the most widely used drugs for treating attention-deficit/hyperactivity disorder. The four most commonly used stimulants are methylphenidate (Ritalin), dextroamphetamine (Dexedrine, Desoxyn), amphetamine and dextroamphetamine (Adderall), and pemoline (Cylert). These drugs increase activity in parts of the brain that are underactive in those with ADHD, improving attention and reducing impulsiveness, hyperactivity, and/or aggressive behavior. Antidepressants, major tranquilizers, and the antihypertensive clonidine (Catapres) have also proven helpful in some cases. Most recently, the FDA has approved a nonstimulant medication, Atomoxetine (Straterra), a selective norepinephrine reuptake inhibitor for the treatment of ADHD.

Every person reacts to treatment differently, so it is important to work closely and communicate openly with your physician. Some common side effects of stimulant medications include weight loss, decreased appetite, trouble sleeping, and, in children, a temporary slowness in growth; however, these reactions can often be controlled by dosage adjustments. Medication has proven effective in the short-term treatment of more than 76 percent of individuals with ADHD.

## Behavioral Therapy

Treatment strategies such as rewarding positive behavior changes and communicating clear expectations of those with ADHD have also proven effective. Additionally, it is extremely important for family members and teachers or employers to remain patient and understanding. Children with ADHD can additionally benefit from caregivers paying close attention to their progress, adapting classroom environments to accommodate their needs, and using positive reinforcers.

## Behavioral Therapy (continued)

Where appropriate, parents should work with the school district to plan an individualized education program (IEP).

## Other Treatments

There are a variety of other treatment options offered (some rather dubious) for those with ADHD. Those treatments not scientifically proven to work include biofeedback, special diets, allergy treatment, megavitamins, chiropractic adjustment, and special-colored glasses.

Reviewed by Peter Jensen, MD.

National Alliance on Mental Illness. (May 2003). Fact Sheet: Attention-Deficit/Hyperactivity Disorder. Retrieved from

http://www.nami.org/Content/Microsites138/NAMI\_Fort\_Wayne\_Indiana/Home128/Resource\_Manual\_for\_Educators/ADHD\_facts.pdf

## Parenting a Child with ADHD

Often, when a child is diagnosed with ADHD, the first response from his or her concerned parent is, "What can *I do* about it?" Although life with your child may at times seem challenging, it is important to remember that children with ADHD can and do succeed. As a parent, you can help create home and school environments that improve your child's chances for success. The earlier you address your child's problems, the more likely you will be able to prevent school and social failure and associated problems such as underachievement and poor self-esteem that may lead to delinquency or drug and alcohol abuse.

Early intervention holds the key to positive outcomes for your child. Here are some ways to get started:

- Don't waste limited emotional energy on self-blame. ADHD is the result of dysfunction in certain areas of the brain and in the majority of cases is inherited. It is not caused by poor parenting or a chaotic home environment, although the home environment can make the symptoms of ADHD worse.
- Learn all you can about ADHD. There is a great deal of information available on the diagnosis and treatment of ADHD. It is up to you to act as a good consumer and *learn* to distinguish the "accurate" information from the "inaccurate." But how can you sort out what will be useful and what will not? In general, it is good to be wary about ads claiming to cure ADHD. Currently, there is no cure for ADHD, but you can take positive steps to decrease its impact.
- Make sure your child has a comprehensive assessment. To complete the
  diagnostic process, make sure your child has a comprehensive assessment
  that includes medical, educational, and psychological evaluations and that
  other disorders that either mimic or commonly occur with ADHD have been
  considered and ruled out.

# Multimodal Treatment for Children and Adolescents with ADHD consists of:

- Parent and child education about diagnosis and treatment;
- Behavior management techniques;
- Medication; and
- School programming and supports.

Treatment should be tailored to the unique needs of each child and family.

#### How to Ensure Your Child's Success at School

- Become an effective case manager. Keep a record of all information about your child. This includes copies of all evaluations and documents from any meetings concerning your child. You might also include information about ADHD, a record of your child's prior treatments and placements, and contact information for the professionals who have worked with your child.
- Take an active role in forming a team that understands ADHD and wants to help your child. Meetings at your child's school should be attended by the principal's designee, as well as a special educator and a classroom teacher that knows your child. You, however, have the right to request input at these meetings from others that understand ADHD or your child's special needs. These include your child's physician, the school psychologist, and the nurse or guidance counselor from your child's school. If you have consulted other professionals, such as a psychiatrist, educational advocate or behavior management specialist, the useful information they have provided should also be made available at these meetings. A thorough understanding of your child's strengths and weaknesses and how ADHD affects him will help you and members of this team go on to develop an appropriate and effective program that takes into account his or her ADHD.
- Learn the tools of successful behavior management. Parent training will teach you strategies to change behaviors and improve your relationship with your child. Identify parent training classes in your community through CHADD's Parent to Parent Family Training on ADHD
   (<a href="http://www.chadd.org/parent2parent">http://www.chadd.org/parent2parent</a>) or the Parent Technical Assistance Center Network (<a href="http://www.parentcenternetwork.org/">http://www.parentcenternetwork.org/</a>).
- Become your child's best advocate. You may have to represent or protect your child's best interest in school situations, both academic and behavioral. Become an active part of the team that determines what services and placements your child receives in an Individualized Education Plan (IEP) or Section 504 plan. See CHADD fact sheet #4, "Educational Rights for Children with ADHD," for more information.

## How to Make Life at Home Easier

 Join a support group. Parents will find additional information, as well as support, by attending local CHADD meetings where available. You can find the nearest chapter to your home on <a href="http://www.chadd.org">http://www.chadd.org</a> chapter locator.

## How to Make Life at Home Easier (continued)

- Seek professional help. Ask for help from professionals, particularly if you are feeling depressed, frustrated and exhausted. Helping yourself feel less stressed will benefit your child as well.
- Work together to support your child. It is important that all of the adults
  that care for your child (parents, grandparents, relatives, and babysitters)
  agree on how to approach or handle your child's problem behaviors.
  Working with a professional, if needed, can help you better understand how
  to work together to support your child.
- Learn the tools of successful behavior management. Parent training will teach you strategies to change behaviors and improve your relationship with your child. Identify parent training classes in your community through your local parent information and resource center <a href="http://www.federalresourcecenter.org/">http://www.federalresourcecenter.org/</a> or parent training and information center <a href="http://www.parentcenternetwork.org/national/resources.html">http://www.parentcenternetwork.org/national/resources.html</a>
- Find out if you have ADHD. Since ADHD is generally inherited, many parents of children with ADHD often discover that they have ADHD when their child is diagnosed. Parents with ADHD may need the same types of evaluation and treatment that they seek for their children in order to function at their best. ADHD in the parent may make the home more chaotic and affect parenting skills.

## Parent Training will Help You Learn to:

- Focus on certain behaviors and provide clear, consistent expectations, directions and limits. Children with ADHD need to know exactly what others expect from them. They do not perform well in ambiguous situations that don't specify exactly what is expected and that require they read between the lines. Working with a professional can help you narrow the focus to a few specific behaviors and help you set limits, and consistently follow through.
- Set up an effective discipline system. Parents should learn proactive—not reactive—discipline methods that teach and reward appropriate behavior and respond to misbehavior with alternatives such as "time out" or loss of privileges.

## Parent Training will Help You Learn to: (continued)

Help your child learn from his or her mistakes. At times, negative
consequences will arise naturally out of a child's behavior. However,
children with ADHD have difficulty making the connection between their
behaviors and these consequences. Parents can help their child with ADHD
make these connections and learn from his or her mistakes.

## How to Boost Your Child's Confidence

- Tell your child that you love and support him or her unconditionally. There will be days when you may not believe this yourself. Those will be the days when it is even more important that you acknowledge the difficulties your child faces on a daily basis, and express your love. Let your child know that you will get through the smooth and rough times together.
- Assist your child with social skills. Children with ADHD may be rejected by peers because of hyperactive, impulsive or aggressive behaviors. Parent training can help you learn how to assist your child in making friends and learning to work cooperatively with others.
- Identify your child's strengths. Many children with ADHD have strengths in certain areas such as art, athletics, computers or mechanical ability. Build upon these strengths, so that your child will have a sense of pride and accomplishment. Make sure that your child has the opportunity to be successful while pursuing these activities and that his strengths are not undermined by untreated ADHD. Also, avoid, as much as possible, targeting these activities as contingencies for good behavior or withholding them, as a form of punishment, when your child with ADHD misbehaves.
- Set aside a daily "special time" for your child. Constant negative feedback can erode a child's self-esteem. A "special time," whether it's an outing, playing games, or just time spent in positive interaction, can help fortify your child against assaults to self-worth.

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For further information about ADHD or CHADD, please contact: National Resource Center on ADHD Children and Adults with Attention-Deficit/Hyperactivity Disorder 8181 Professional Place, Suite 150 Landover, MD 20785 800-233-4050 www.help4adhd.org

Please also visit the CHADD Web site at www.chadd.org.

National Resource Center on ADHD. (2004). Parenting a Child with ADHD. Children and Adults with Attention-Deficit Hyperactivity Disorder (CHADD). Retrieved from <a href="http://www.help4adhd.org/documents/WWK2.pdf">http://www.help4adhd.org/documents/WWK2.pdf</a>

Students living with ADHD may experience unique challenges in the classroom. The common symptoms of ADHD—inattention, hyperactivity and impulsivity—can cause disruptions to a child's learning, peer relationships, functional performance and behavior within the school setting. ADHD may manifest itself differently in the classroom than what you see at home. For example, students living with ADHD often:

- perform better one-on-one than in groups;
- have trouble paying attention to details and are often caught daydreaming;
- avoid, dislike or are reluctant to engage in activities that require sustained attention;
- experience challenges listening to or following through on instructions;
- are highly distractible, forgetful, absent-minded, careless and disorganized;
- display extreme physical agitation—fidget, squirm or cannot stay seated; and
- speak out of turn and talk excessively.

To better understand how ADHD impacts your child's school behavior, academic progress and other related issues, it is important to have open communication with your child's teachers and other key school personnel. They can share with you important observations they have of your child at school.

If you discover that the symptoms of ADHD are causing challenges for your child within the school setting, there are many services and supports that can help your child thrive.

## Understanding Your Child's Rights in the School Setting

There are two federal laws to ensure a Free and Appropriate Public Education (FAPE) for your child, including:

**Section 504 of the Rehabilitation Act of 1973** is designed to ensure that individuals are not discriminated against because of a disability. Students living with ADHD may be entitled to receive a 504 plan that identifies appropriate accommodations to help them succeed in school. To receive 504 services, you must show that the ADHD is continuous, documented and significantly limits at least one major life activity, which includes learning in school.

Individuals with Disabilities Education Act (IDEA) is the federal special education law. IDEA services include the development of an individualized education program (IEP), which is a detailed plan outlining how the student's academic, social and emotional needs will be met to ensure the student receives an appropriate education. It goes well beyond the accommodations typically provided through Section 504.

Understanding Your Child's Rights in the School Setting (continued)

Individuals with Disabilities Education Act (IDEA) (continued) The IEP is developed by a team that includes parents, teachers, administrators and related service providers. Students receiving special education services must be placed in a general education setting whenever possible.

# Obtaining School-based Services and Supports for Your Child: A Step-by-step Process

Here is a brief overview of how to obtain accommodations for your child, whether under Section 504 or IDEA.

1. Evaluation. You may contact your child's school at any time to request an evaluation for special education services. This evaluation is an assessment of your child's functional and academic ability and includes reviewing your child's academic records and performance, any observations that have been made (at home and in school) and his or her social and emotional status. The evaluation will determine if your child has a disability that requires services, what your child's needs are and which special education services are appropriate for addressing these needs.

If you disagree with a school's evaluation of your child, you can always request an additional, independent evaluation to be done outside of the school. You can also request a Functional Behavioral Analysis, which assesses your child's behavior within the school environment and identifies how to predict negative behaviors and reinforce positive behaviors. If it identifies problem behaviors, a Behavior Intervention Plan should be developed that includes instructional strategies, accommodations and supports based on the analysis. This plan should be included in your child's 504 plan or IEP.

**2. Eligibility**. The evaluation will be used to determine if your child is eligible for Section 504 or IDEA services. If ADHD interferes with your child's ability to learn and function in school, he or she will likely qualify for IDEA services. If not, a Section 504 plan will likely be developed with accommodations for your child.

Obtaining School-based Services and Supports for Your Child: A Step-by-step Process (continued)

- **3. Planning**. If your child is found eligible for services and supports, the school should convene an IEP or 504 meeting with you and other key stakeholders within 60 days. An IEP should identify your child's academic needs *along with* emotional, behavioral, developmental, social and organizational needs. The school should include a specific, measurable and achievable goal to address each need and should have specific services and supports to assist your child in accomplishing each goal. Unlike the IEP, a 504 plan is not as structured, is less detailed and does not require schools to monitor student progress or to measure progress in achieving goals.
- **4.** Implementation. Once a 504 plan or IEP is approved, your child should begin receiving the services and supports outlined in the plan immediately. The school is responsible for carrying out the plan as written and sharing the plan with all school personnel who work with your child and will be implementing it.
- **5. Review**. Any plan should be reviewed at least once a year or more often if you or the school asks to review it. If necessary, the 504 plan or IEP can be revised. With an IEP, your child's progress toward the goals should be measured and shared with you on a regular basis.

Some students living with ADHD are classified as "twice exceptional," meaning that they live with ADHD and are also gifted in one or more areas. For these students, ADHD may not present a significant problem until they are in middle school. Many twice exceptional students do not perform at their full potential, but because they are exceptionally bright, they do still achieve at an academic level that can make it more difficult to receive accommodations under IDEA. It is important that parents are attentive to the needs of this population and to remember that IDEA does not only require that students' academic needs are met but also their emotional growth, behavior and social skills needs. Additionally, IDEA requires schools to provide services that allow a student to make reasonable or meaningful progress and to achieve progress toward independence.

## Developing an Effective IEP: 10 Tips for Parents

**Prioritize**. Before the meeting, write down your child's academic, social, physical and emotional challenges, in order of priority. Also, write down important questions or issues you want to bring up during the meeting.

Developing an Effective IEP: 10 Tips for Parents (continued)

**Research**. Know beforehand who will be attending the meeting and also what special education services are often provided to students living with ADHD in your child' school and other schools in the district. Have your observations from home and your child's medical records and evaluations on hand.

**Invite a friend or family member.** Friends and family members can act as a second set of ears and eyes by taking notes so you do not miss anything important. They can also provide emotional support, offer a kind word or just listen.

**Find an advocate**. You may also want to bring a family advocate who can stand up for the special education services your child needs. Your child's treating provider can also provide valuable insight during an IEP meeting.

**Celebrate your child.** IEP meetings are a wonderful time to talk about your child's achievements and strengths. Take a few minutes at the beginning of the meeting to talk about your child—this helps start the meeting on a positive note.

**Don't settle for less.** Your child's school may tell you they do not have the funding or resources to cover the services needed by your child. However, federal law may require that they provide these services. Do not settle for anything less than what your child needs to succeed.

**Be specific**. Move away from any goals and interventions that are vague. The IEP should address who, what, where and when any interventions will be provided and how effectiveness will be evaluated.

**Don't feel pressured.** You do not need to accept every service the school offers nor do you need to sign the IEP before you leave the meeting. You can take the IEP home for additional review before agreeing to it.

**Be open**. Be open to any recommendations made by IEP team members—each person at the table has a set of skills that can help. Approach the meeting with a positive attitude and work as a team to help your child reach his or her goals.

Write everything down. If it is not written down, then it did not happen. Make sure to make copies of any and all documents, including the IEP, document any agreements that were made during the IEP meeting.

# Recognizing Common School-based Accommodations for Students Living with ADHD

The following is a list of typical accommodations that a student living with ADHD may have included in a 504 plan or IEP:

- modified homework assignments, testing and deadlines;
- use of helpful tools (calculator, tape recorder, computer and electric spell-checker);
- behavioral plan or social skills training;
- continual progress reports assessing behavior and assignments;
- peer, volunteer tutors or working one-on-one with the teacher;
- sitting the student near the teacher and away from doors and windows;
- increased parent and teacher collaboration;
- providing the student with a note-taking partner; and
- letting the student run occasional errands for the teacher to burn off some energy.

The following is a list of more intensive services and supports that may be provided for students living with ADHD who have an IEP:

- supplementary aids and services;
- school-based counseling;
- family counseling and training;
- resource room services (small group work);
- test modifications (e.g., small group testing in a separate location);
- one-on-one service providers (e.g., crisis management services, transportation services and more); and
- collaborative team teaching.

## Positive Behavioral Interventions and Supports

IDEA requires schools to consider positive behavioral supports for a student with behavioral challenges and include these in an IEP. Many schools have implemented Positive Behavioral Interventions and Supports (PBIS) programs to promote school-wide positive behavior and provide more intensive interventions for students who need it. For more information, visit www.pbis.org.

# Recognizing Common School-based Accommodations for Students Living with ADHD (continued)

Your child's 504 plan or IEP should be individualized and focus on his or her strengths, interests and goals. To learn what accommodations may best support your child, meet with your child's treating provider for some recommendations and share this information with your child's teachers and other school personnel.

## Overcoming Challenges in Seeking School-based Services and Supports

Under IDEA, if there is a dispute related to a student's evaluation, IEP or implementation of services and supports, parents can request a due process hearing. However, it is always best to attempt to work out conflicts with the school informally or through mediation. You can always seek help from local family advocacy organizations, your state's <u>Protection and Advocacy</u> agency or your state's <u>Parent Training and Information Center</u>.

## Tips for Teachers and School Personnel

You may want to share the following tips with teachers and school personnel to help your child achieve his or her academic and functional goals in school.

- Work on difficult tasks early in the day.
- Give directions for one assignment at a time rather than directions for multiple tasks.
- Seat your child away from distractions or near another student who is working on a similar assignment.
- Vary the pace of activities to help maintain the child's attention.

It is possible that not all of these apply to your child, but share those that do with your child's school.

National Alliance on Mental Illness. (2010, September 2). ADHD and School: Helping Your Child Succeed in the Classroom. Retrieved from

http://www.nami.org/Template.cfm?Section=ADHD&Template=/ContentManagement/Content Display.cfm&ContentID=106379

# Executive Function..."What is this anyway?"

By Chris A. Zeigler Dendy, M.S.

Published in CHADD's ATTENTION Magazine, February 2008; updated in 2011.

#### Executive functions are crucial for school success!

Five years ago, most parents and teachers of students with ADHD didn't have a clue that a child's academic success was contingent upon strong executive skills. However, today's savvy parents and educators realize that deficits in critical cognitive skills known as executive functions (EF) are slower to mature in many children with ADHD. In 2007, researchers made a startling discovery: the brains of students with ADHD mature three years more slowly than their peers. This helps explain why their executive skills are delayed. Two years later, scientists found that the part of the brain that enables students to work on "boring tasks" such as school work has a reduced number of dopamine receptors and transporters. More simply stated the reduced levels of brain chemistry in this key area explains why students can play video games for hours but struggle to complete their homework in a timely manner.

Impact of ADHD and Executive Function Deficits on Learning and Behavior. Practically speaking, problems with the "brain's CEO" contribute to several problems: disorganization, difficulty getting started and finishing work, remembering homework, plus difficulty memorizing facts, writing essays or reports, working complex math problems, remembering what is read, completing long-term projects, being on time, controlling emotions, and planning for the future.

Before we understood the role of executive functions, parents and teachers were often baffled when students, especially those who were intellectually gifted, teetered on the brink of school failure. Unfortunately, to the uninformed, deficits in executive skills often appeared to be a simple matter of "laziness or lack of motivation". When a student had trouble getting started and finishing an essay or math work, it was easy to assume that the student chose not to do the task.

**Executive Functions Defined.** Although scientists have not yet agreed on the exact elements of executive function, two ADHD researchers, Dr. Russell Barkley and Dr. Tom Brown, have given us insightful working descriptions. Dr. Barkley describes executive function as those "actions we perform to ourselves and direct at ourselves so as to accomplish self-control, goal-directed behavior, and the maximization of future outcomes."

Executive Functions Defined (continued). Through use of a metaphor, Dr. Brown gives us a helpful visual image by comparing executive function to the conductor's role in an orchestra. The conductor organizes various instruments to begin playing singularly or in combination, integrates the music by bringing in and fading certain actions, and controls the pace and intensity of the music. Dr. Gerard Gioia and his colleagues also contributed to our knowledge of executive functions when they developed the BRIEF (Behavior Rating Scale of Executive Functions).

Additional Research on Executive Functions. Researchers vary widely in reports about the frequency of these deficits in students with ADHD. However, Dr. Russell Barkley, a noted authority on ADHD, reported that 89-98 percent of children with ADHD have deficits in executive skills. Dr. Barkley believes that the scores on EF rating scales are a better predictor of real world functioning than the lower EF deficit prevalence rates reported on traditional tests of executive skills.

According to Dr. Barkley, students with ADHD experience roughly a thirty percent developmental delay in some skills such as, organizational and social skills. Basically this means our children appear less mature and responsible than their peers. For example, a twelve year old's executive skills are often more like those of an eight-year-old. To ensure academic success for these students, parents and teachers must provide more supervision and monitoring than is normally expected for this age group. I refer to this as providing "developmentally appropriate supervision."

Real World Impact. Although our son Alex successfully struggled through the early school years, he finally hit the proverbial "ADHD brick wall" in middle school. Belatedly I realized that the demands for executive skills increase exponentially in middle school (working independently, organizing oneself, getting started, remembering multiple assignments). As a former teacher and school psychologist, I'm also embarrassed to say I failed for many years to recognize that a high IQ score alone was not enough to make good grades. It wasn't until Dr. Barkley identified the central role executive function plays in school success, that I finally understood why school was so difficult for my son. Teachers would say, "Alex is very bright; he could make better grades if he would just try harder." In truth, our children often do try harder, but even then, cannot make good grades without proper treatment and academic supports. Bottom line--the executive function deficits were the primary cause of Alex's academic struggles, not the symptoms of his ADHD.

## Components of Executive Function

Based upon material from Barkley, Brown, and Gioia I have outlined eight general components of executive function that impact school performance:

- 1. Working memory and recall (holding facts in mind while manipulating information; accessing facts stored in long-term memory.)
- 2. **Activation, arousal, and effort** (getting started; paying attention; finishing work)
- 3. **Controlling emotions** (ability to tolerate frustration; thinking before acting or speaking)
- 4. **Internalizing language** (using "self-talk" to control one's behavior and direct future actions)
- 5. Taking an issue apart, analyzing the pieces, reconstituting and organizing it into new ideas (complex problem solving).
- 6. **Shifting, inhibiting** (changing activities, stopping existing activity, stopping and thinking before acting or speaking)
- 7. **Organizing/planning ahead** (organizing time, projects, materials, and possessions)
- 8. Monitoring (self-monitoring and prompting)
  - Viewing the Impact of Executive Function Deficits in Two Categories. I've found it helpful to view the practical impact of executive function deficits in two general categories:
- 9. **Specific academic challenges** like writing essays, remembering what is read (comprehension), memorizing information, and completing complex math and
- 10. Essential related skills like organization, getting started on and finishing work, remembering tasks and due dates, completing homework and long-term projects in a timely manner, processing information in an efficient and timely manner, having good time awareness and management, using self-talk to direct behavior, using weekly reports, and planning ahead for the future.

## Components of Executive Function (continued)

Essential related skill deficits may be mistaken for laziness. Since these common academic challenges such as a writing disability are easily recognizable, teachers are more willing to provide necessary accommodations. However, educators may be reluctant to provide needed supports for essential related executive skill deficits such as disorganization, getting started, and failure to submit completed homework in a timely manner. Unfortunately, on the surface, failure to perform these tasks looks like a simple choice was made to be lazy and not complete the work. However, that's not the case; a neurological deficit makes these tasks extremely difficult for students with attention deficits. Consequently, parents and teachers must always keep in mind that, first and foremost, this is a neurological problem, not laziness.

Let's take a more in-depth look at just one element of executive functiondeficits in working memory and recall-and their impact on school work.

## Poor Working Memory and Recall

Contrary to conventional wisdom, researchers report that working memory skills are a better predictor of academic achievement than IQ scores. This explains why children with ADHD and high IQs may still struggle in school. Deficits in working memory and recall negatively affect these students in several areas:

## 1. Affects the here and now:

- a. limited working memory capacity
- b. weak short-term memory (holding information in mind for roughly twenty seconds; capacity-roughly the equivalent of seven numbers)
- c. forgetfulness-can't keep several things in mind

As a result, students:

- have difficulty remembering and following instructions.
- have difficulty memorizing math facts, spelling words, and dates.
- have difficulty performing mental computation such as math in one's head.
- forget one part of a problem while working on another segment.
- have difficulty paraphrasing or summarizing.
- have difficulty organizing and writing essays.

## Poor Working Memory and Recall (continued)

- 2. Affects their sense of past events:
  - a. difficulty recalling the past

As a result, students:

- do not learn easily from past behavior (limited hindsight).
- repeat misbehavior.
- 3. Affects their sense of time:
  - a. difficulty holding events in mind
  - b. difficulty using their sense of time to prepare for upcoming events and the future

As a result, students:

- have difficulty judging the passage of time accurately.
- do not accurately estimate how much time it will take to finish a task; consequently, they may not allow enough time to complete work.
- 4. Affects their sense of self-awareness:
  - a. diminished sense of self-awareness

As a result, students:

- do not easily examine or change their own behavior.
- 5. Affects their sense of the future:
  - a. students live in the present-focus on the here and now
  - b. less likely to talk about time or plan for the future

As a result, students:

- have difficulty projecting lessons learned in the past, forward into the future (limited foresight).
- have difficulty preparing for the future.

# Common Academic Problems Linked to ADHD and Executive Function Deficits

Many students with ADD or ADHD have *impaired working memory and slow processing speed*, which are important elements of executive function. Not surprisingly, these skills are critical for writing essays and working math problems.

Research studies by Mayes and Calhoun and more recently by Katusic have identified *written expression* as a major learning problem among students with ADHD (65-67 percent). Consequently, writing essays, drafting book reports or answering questions on tests or homework is often very challenging for these students.

# Common Academic Problems Linked to ADHD and Executive Function Deficits (continued)

For example, when writing essays, students often have difficulty holding ideas in mind, acting upon and organizing ideas, quickly retrieving grammar, spelling and punctuation rules from long-term memory, manipulating all this information, remembering ideas to write down, organizing the material in a logical sequence, and then reviewing and correcting errors.

Since learning is relatively easy for most of us, sometimes we forget just how complex seemingly simple tasks really are, for example memorizing multiplication tables or working a math problem. For example, when a student works on a math problem, he must fluidly move back and forth between analytical skills and several levels of memory (working, short-term, and long-term memory). With word problems, he must hold several numbers and questions in mind while he decides how to work a problem. Next he must delve into long-term memory to find the correct math rule to use for the problem. Then he must hold important facts in mind while he applies the rules and shifts information back and forth between working and short-term memory to work the problem and determine the answer.

To further complicate matters, other serious conditions may co-occur with ADD and ADHD. According to the recent landmark National Institute of Mental Health MTA study on ADHD, two *thirds of children with ADHD have at least one other coexisting problem*, such as depression or anxiety. Accommodating students with complex cases of attention deficit disorder is critical! These children are at greater risk than their peers for a multitude of school problems, for example, failing a grade, skipping school, suspension, expulsion, and sometimes, dropping out of school and not going to college.

## **Favorite School Success Strategies**

Over the years I have collected several favorite teaching strategies and accommodations that work well for students with ADD or ADHD. So here are just a few of my favorite tips:

## **General Teaching Strategies**

- 1. Make the learning process as concrete and visual as possible. Written expression
- a. Dictate information to a "scribe" or parents.
- b. Use graphic organizers to provide visual prompts.
- c. Use Post-it notes to brainstorm essay ideas.

## **General Teaching Strategies (continued)**

#### Math

- a. Use paired learning (teacher explains problem, students make up their own examples, swap problems, and discuss and correct answers).
- b. Use a peer tutor.

(After barely passing high school and college algebra, my son made an A in calculus plus had a 100 average on tests when the professor used this strategy. At the same time, he also tutored a friend.)

## Memory

- a. Use mnemonics (memory tricks), such as acronyms or acrostics, e.g., HOMES to remember names of the Great Lakes, Huron, Ontario, Michigan, Erie, and Superior.
- b. Use "visual posting" of key information on strips of poster board.
- c. Consider "Times Alive", an educational CD, to assist with memorizing multiplication tables.

## 2. Modify teaching methods.

- a. Use an overhead projector to demonstrate how to write an essay. (Parents may simply write on paper or a computer to model this skill.)
- b. Use color to highlight important information.
- c. Use graphic organizers to help students organize their thoughts.

## 3. Modify assignments-reduce written work.

- a. Shorten assignments.
- b. Check time spent on homework, and reduce it if appropriate (when total homework takes longer than roughly 10 minutes per grade level as recommended in a PTA/NEA Policy, e.g. 7th grader = 70 minutes).
- c. Write answers only, not the questions (photocopy questions).

## 4. Modify testing and grading.

- a. Give extended time on tests.
- b. Divide long-term projects into segments with separate due dates and grades.
- c. Average two grades on essays- one for content and one for grammar.

## 5. Modify level of support and supervision.

- a. Appoint "row captains" to check to see that homework assignments are written down and later turned in to the teacher.
- b. Increase the amount of supervision and monitoring for these students, if they're struggling.

## General Teaching Strategies (continued)

- 6. Use technology.
  - a. Use a computer as often as possible.
  - b. Use software to help teach skills.

Unfortunately students with ADD or ADHD are often *punished for executive function deficits* such as lack of organizational and memory skills that interfere with their ability to bring home the correct homework assignments and books. Hopefully, after reading this article, teachers and parents will develop more innovative intervention strategies. For example, one effective alternative would be to have someone (a friend or teacher aide), meet the student at his locker to get the necessary homework materials together. Ultimately, this process of "modeling" and "shaping" behavior at the critical "point of performance" will help the student master skills or at a minimum, teach him to compensate for deficits.

In Closing. Clearly school is often very difficult for students with attention deficits. However, when executive function deficits are also present, the accompanying problems are often overwhelming to the student and family. Unfortunately, some parents and teachers have had little awareness or sympathy for the challenges presented by these combined deficits. Hopefully, teachers and parents now realize that attention deficit disorder is often a very complex condition! It's much more than just a simple case of hyperactivity. When deficits in executive function and related learning problems are present, students can try their very best and still not succeed in school!!

So what should parents and teachers do with this new information?

- 1) Identify the student's specific learning problems (e.g. written expression or math)
- **2) Identify their executive function deficits** (e.g. working memory, disorganization, forgetfulness, or impaired sense of time)
- 3) provide accommodations in both areas!

I leave you with this food for thought,

"Succeeding in school is one of the most therapeutic things that can happen to a child! So do whatever it takes to help the child succeed in school."

On a personal note, our youngest son struggled terribly throughout his school years with ADD inattentive and executive function issues. Although college was incredibly difficult, Alex did graduated and occasionally made the dean's list. We're so proud of him and his tenacity. So if your child is struggling in school, do not give up. My family offers living proof that there is hope and help for ADHD and coexisting conditions.

**Teaching Teens with ADD, ADHD, and Executive Function Deficits, 2nd ed** was the source for this article. In addition see the original CHADD article for references including Barkley, Brown, Dendy, Deshler, Levine, Mayes and Calhoun. © Copyright 2011 Chris A. Zeigler Dendy and Alex Zeigler. All rights reserved.

Zeigler Dendy, C., and Zeigler, A. (2011). Executive Function... "What is this anyway?" Retrieved from <a href="http://www.chrisdendy.com/executive.htm">http://www.chrisdendy.com/executive.htm</a>

# Advocating for Your Child: 25 Tips for Parents

By David Fassler, M.D.

According to the Surgeon General, 1 child in 5 will experience significant problems due to a psychiatric disorder. The good news is that we can help many, if not most, of these youngsters. The real tragedy is that so few, less than 1 in 3, are receiving the comprehensive treatment they really need.

Children and adolescents with emotional and behavioral problems deserve access to the best possible mental health care. Unfortunately, such services are often difficult to obtain. Parents can help by being informed, involved and persistent advocates on behalf of their children.

The following outline offers specific tips and suggestions which parents may find useful in such advocacy efforts.

Individual advocacy for your own child:

- 1. **Get a comprehensive evaluation.** Child psychiatric disorders are complex and confusing. A full assessment will often involve several visits. Effective treatment depends on a careful and accurate diagnosis.
- 2. Insist on the best. Talk to physicians, therapists, guidance counselors and other parents. Find out who in your community has the most experience and expertise in evaluating and treating your child's particular condition. Check the clinician's credentials carefully. Are they appropriately licensed or certified in your state? If he or she is a physician, are they "Board Certified"? Push schools, insurance companies and state agencies to provide the most appropriate and best possible services, not merely services which are deemed sufficient or adequate.
- 3. Ask lots of questions about any diagnosis or proposed treatment. Encourage your child to ask any questions he or she may have, as well. Remember that no one has all the answers, and that there are few simple solutions for complex child psychiatric disorders. In addition, all treatments have both risks and benefits. Make sure you and your child understand the full range of treatment options available so you can make a truly informed decision.
- 4. Insist on care which is "family centered" and which builds on your child's strengths. Ask about specific goals and objectives. How will you know if treatment is helping? If your child's problems persist or worsen, what options and alternatives are available?

- 5. Ask about comprehensive "wrap around" or individualized services, geared specifically to the needs of your child and family. Are such services available in your state or community? If not, why not?
- 6. **Be prepared.** One of the most important things you can do to help your child is to keep all information, including past consultation and treatment reports, in an organized place. Insist on receiving your own copies of all evaluations. Records can easily be misplaced, delayed or even destroyed. Maintaining your own file with all relevant information can help avoid unnecessary duplication of previous treatment efforts.
- 7. Feel free to seek a second opinion. Any responsible mental health professional will be glad to help with referrals or by sharing information. If you have any questions at all about your child's diagnosis or the proposed course of treatment, by all means, arrange an independent consultation with another clinician.
- 8. Help your child learn about their condition. Use books, pamphlets and the Internet. Make sure the information is age-appropriate. Answer questions with honest, accurate and consistent information, but don't overload children with more detail than they need or want.
- 9. Learn the details of your insurance policy, and learn about the laws governing insurance in your state. For example, in some states, insurance companies must provide access to a specialist, such as a child and adolescent psychiatrist, within a certain distance from your home. If no such specialist is available as part of the company's "network", you may be able to receive treatment from a provider of your choice, with the insurance company responsible for full payment.
- 10. Work with the schools. Insist on access to appropriate mental health consultation services. Suggest in-service training programs to enhance awareness about child psychiatric disorders. Request copies of your child's educational records, including the results of any formal testing or other evaluations. Ask to be included in any and all school meetings held to discuss your child.
- 11. Learn about the reimbursement and funding systems in your state. The more you know, the better you can advocate on behalf of your child. How does Medicaid work? Which services are covered and which are excluded? Is there a "waiver program" which allows increased flexibility based on the specific needs of children and families? Is your child eligible? If not, why not? What other sources of funding are potentially available?

- 12. Get to know the state insurance commissioner and healthcare "ombudsperson" or consumer representative. Ask them to attend regular meetings with parent groups. Let them know about your experiences.
- 13. Use a lawyer, if necessary. Learn about the local legal resources. Find out which lawyers in your community are familiar with educational and mental health issues. Talk to your local Protection and Advocacy agency or American Civil Liberties Union for suggestions. Call the State Bar Association. Talk to other parents who are lawyers or who have used lawyers. Consider a legal consultation to make sure you are pursuing all appropriate avenues and options regarding services for your child.

Statewide advocacy for all children, including your own:

- 14. Become politically active. Meet with state senators and representatives. Question candidates about their positions on access to necessary and appropriate mental health services for children and families. Testify at hearings on state legislation and budgets. Legislators are more likely to be influenced and persuaded by personal stories than by data, statistics or the opinions of professionals.
- 15. Build coalitions and work with local advocacy and parent organizations such as NAMI, NMHA and the Federation of Families. Develop and publicize a common "Agenda for Children's Mental Health".
- 16. **Teach children about advocacy.** Invite them to become involved in advocacy activities, where appropriate, but don't force them to participate.
- 17. Develop a legislative strategy. If your state does not yet have parity legislation, put this at the top of the agenda. Other "family protection" initiatives include:
  - access to an independent panel to review and potentially reverse insurance company denials
  - consumer representation on community mental health center boards
  - adequate network provisions, which mandate timely and appropriate access to specialists
  - adequate funding for school and community based mental health services.

- 18. Seek bipartisan support. Mental illness affects families of all political persuasions. Building a broad base of support has been a key to successful legislative initiatives, both at the State and Federal levels.
- 19. **Fight stigma.** Develop an ongoing local education campaign that reiterates the key messages:
  - child psychiatric disorders are very real illnesses
  - they effect lots of kids and adolescents
  - fortunately, they are also quite treatable, especially if treatment begins early and is individualized to the needs of each child and family.
- 20. **Become involved with medical education.** Meet with local medical students and residents. Sensitize them to the issues and challenges families face when caring for a child with emotional and behavioral problems.
- 21. Use the media. Write letters to the editor and/or op-ed pieces on child mental health issues. Meet with local reporters covering health care topics. Suggest story ideas to local TV stations.
- 22. Work with local professional organizations. Psychiatrists, psychologists, social workers, psychiatric nurses, and mental health counselors are natural allies with a common advocacy agenda. Coordinate efforts on issues such as parity, funding for mental health services, managed care oversight, etc. Professional organizations may also have access to resources, including funds for lobbying and/or public education initiatives, from their national associations.
- 23. Talk to other parents. Seek out and join local parent support groups. If none exist, consider starting one. Develop an email "listserv" to facilitate communication. Circulate articles, information and suggestions about local resources.
- 24. Attend regional and national conferences of parent and advocacy organizations. Such meetings provide information, ideas, camaraderie and support. Sharing experiences with other parents is both helpful and empowering.
- 25. **Don't give up.** Aim for and celebrate incremental victories and accomplishments. Remember, advocacy is an ongoing process!

There's no right or wrong way to be an advocate for your child. Advocacy efforts and initiatives should be individualized to your state, community and the particular issues, circumstances and needs within your family. Advocacy is also hard work. Even when people want to help, and are willing to listen, it takes lots of time and energy to change the system. But when it works, and it often does, the outcome is clearly worthwhile. You really can make a difference, both for your own child, and ultimately for all children who need and deserve access to appropriate and effective mental health treatment services.

## Resources

The following organizations are excellent resources regarding advocacy on behalf of children's mental health:

American Academy of Child and Adolescent Psychiatry 3615 Wisconsin Avenue, NW Washington, DC 20016 (202) 966-7300 www.aacap.org

American Psychiatric Association Division of Public Affairs 1400 K Street, NW Washington, DC 20005 (202) 682-6140 www.psych.org

Federation of Families for Children's Mental Health 1101 King Street, Suite 420 Alexandria, VA 22314 (703) 684-7710 www.ffcmh.org

National Alliance on Mental Illness 3803 N. Fairfax Dr. Suite 100 Arlington, VA 22203 (703) 524-7600 www.nami.org

## Resources (continued)

National Disability Rights Network (NDRN) 900 Second St. NE, Suite 211 Washington, DC 20002 (202) 408-9514 www.ndrn.org

National Mental Health Association 1021 Prince Street Alexandria, VA 22314-2971 1-800-969-6642 www.nmha.org

The Children's Defense Fund 25 E Street NW Washington, DC 20001 (202) 628-8787 www.childrensdefense.org

Bazelon Center for Mental Health Law 1101 15th Street NW, Suite 1212 Washington, DC 20005-5002 (202) 467-5730 www.bazelon.org

The Balanced Mind Foundation 1187 Wilmette Avenue P.M.B. #331 Wilmette, IL 60091 (847) 256-8525

Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD) 8181 Professional Place, Suite 201, Landover, MD 20785 CHADD 1-800-233-4050 (301) 306-7070 www.chadd.org

Juvenile Bipolar Research Foundation 49 S. Quaker Road Pawling, NY 12564 (203) 226-2216 www.bpchildresearch.org

## Resources (continued)

Depression and Bipolar Support Alliance (DBSA) 730 N. Franklin Street, Suite 501 Chicago, IL 60610 1-800-826-3632 (312) 642-0049 www.ndmda.org

Depression and Related Affective Disorders Association (DRADA) Meyer 3-181, 600 North Wolfe Street Baltimore, MD 21287-7381 (410) 955-4647 www.drada.org

Dr. Fassler is a Board Certified Child and Adolescent Psychiatrist practicing in Burlington, Vermont. He is a Clinical Associate Professor in the Department of Psychiatry at the University of Vermont College of Medicine. Dr. Fassler is also a Trustee of the American Psychiatric Association (<a href="www.psych.org">www.psych.org</a>), a Fellow of the American Academy of Child and Adolescent Psychiatry (<a href="www.aacap.org">www.aacap.org</a>), and a member of the Board of the Federation of Families for Children's Mental Health (<a href="www.ffcmh.org">www.ffcmh.org</a>).

Fassler, D. (2003). Advocating for Your Child: 25 Tips for Parents. Retrieved from <a href="http://www.nami.org/Content/ContentGroups/CAAC/How\_To\_Advocate\_For\_Your\_Child.htm">http://www.nami.org/Content/ContentGroups/CAAC/How\_To\_Advocate\_For\_Your\_Child.htm</a>