

Attention-Deficit Hyperactivity Disorder (ADHD)

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Introduction

Attention-Deficit Hyperactivity Disorder (ADHD) is a common disorder in children. This handout has been developed to educate parents regarding the causes, symptoms, and issues associated with Attention-Deficit Hyperactivity Disorder (ADHD). Designed as an overview, years of experience with ADHD children and adults has prompted the identification of several patterns of behavior described in this handout. Information in the handout has been obtained from several sources - professional experience, books, parent/student interviews, and internet websites. This handout is not a substitute for professional evaluation or assessment of ADHD in children and is placed on the internet as a resource for those interested in Attention-Deficit Hyperactivity Disorder (ADHD).

Causes of Attention-Deficit Hyperactivity Disorder (ADHD)

Attention-Deficit Hyperactivity Disorder (ADHD) has been clinically researched for over thirty-five years. Various labels have been utilized to reflect two basic themes - the predominant symptom of hyperactivity and the clinical assumption that ADHD is related to a neurological dysfunction. Thus, early labels such as "Hyperkinetic Reaction in Childhood", "Minimal Brain Damage", and "Minimal Brain Dysfunction" were used to describe the condition. As research accumulated and better neurological assessment equipment surfaced, professionals began to understand the complex nature of Attention-Deficit Hyperactivity Disorder (ADHD), its' symptoms, and how it can be treated.

Attention-Deficit Hyperactivity Disorder (ADHD) is **caused by neurological rather than parental, social, or emotional causes**. The cause of Attention-Deficit Hyperactivity Disorder (ADHD) has been linked with the brain's chemical system, not it's structure. Thus, Attention-Deficit Hyperactivity Disorder (ADHD) is a problem with brain chemistry - not brain damage or injury.

The brain uses multiple chemical substances for operation, regulation, and communication. These chemicals, called "neurotransmitters", serve various functions in the brain. Three neurotransmitters have been linked to behavioral and emotional conditions: Dopamine, Serotonin, and Norepinephrine. If we imagine using a "dipstick", like the dipstick used to check oil/transmission fluid levels in our automobile, we might be able to check the neurotransmitter levels in our brain, finding which neurotransmitters are low, within the normal range, or high. Low levels of Serotonin, for example, are linked with clinical depression and for that reason, modern antidepressant medication increases the availability of the Serotonin neurotransmitter in the brain.

Attention-Deficit Hyperactivity Disorder (ADHD) appears related to two neurotransmitters - Dopamine and Norepinephrine. Neurotransmitters are used by the brain to stimulate or repress stimulation in brain cells. To pay proper attention, the brain must be adequately stimulated. To have proper control of our impulses, areas of the brain must be adequately controlled, repressed, or slowed down. In ADHD children, both systems of stimulation and repression are not working correctly. **Some studies suggest**

that ADHD Children/Adults may have only ten to twenty-five percent of these two neurotransmitters found in the normal brain.

Inattention and distractibility appear to be related to low levels of Norepinephrine. ADHD Children/Adults can't judge which things in their environment are important and which should be ignored. ADHD Children/Adults often feel the flight path of a fly in the room is as important as the teacher's algebra lesson. To the ADHD Child/Adult, everything on the desk is equally interesting and worthy of attention. **Low levels of Norepinephrine also make it very difficult for ADHD Children/Adults to sustain their focus on a task, plan ahead, and understand such concepts as sequence and time.**

The impulse and behavior problems found in Attention-Deficit Hyperactivity Disorder (ADHD) appear related to low levels of Dopamine in the brain. When dopamine levels are normal, we can repress the urge to do or say something in public, grab something interesting on a desk, blurt out our opinion, or touch/poke someone who has just walked within our physical range. **Low levels of dopamine in the brain makes control of impulsive behavior almost impossible** in the ADHD Child/Adult.

In treatment, medications effective with ADHD Children/Adults are those which alter levels of Dopamine and Norepinephrine. Stimulate medications (Ritalin) are known to increase the production of these two neurotransmitters - boosting their levels into the normal range and producing increased attention and decreased impulsivity. Other medications with similar actions, such as antidepressant medications, can also be of use in the treatment of ADHD Children/Adults.

The many symptoms and behaviors found in ADHD Children/Adults are linked to the various levels of these two neurotransmitters. ADHD is diagnosed in children and adults by recognizing the patterns and symptoms found in the condition. This paper will explore the symptoms associated with Attention-Deficit Hyperactivity Disorder (ADHD).

The essential features of Attention-Deficit Hyperactivity Disorder (ADHD), as described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (1994), is the **presence of developmentally inappropriate degrees of inattention, impulsiveness, and hyperactivity.** Individuals with the disorder generally display some disturbance in each of these areas, but to varying degrees. The following is a list of symptoms commonly associated with Attention-Deficit Hyperactivity Disorder (ADHD) based on the 1994 Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV): These symptoms are related to inattention...

-Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities. ADHD Children/Adults children are famous for skipped math problems, milk cartons on the kitchen table, etc.

-Often has difficulty sustaining attention in tasks or play activities. A two-minute timed task is often interrupted by glancing about the room.

- Often does not seem to listen when spoken to directly. As described, ADHD Children/Adults are often considered to have hearing problems or difficulties in auditory processing due to their inability to hear or respond to comments.
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties. ADHD Children/Adults quit games half-way through, half-clean their room, or wander off in the middle of projects. Homework is often partially finished or even if finished, the ADHD student forgets to turn it in.
- Often has difficulty organizing tasks and activities. Many tasks/activities require planning and organization. An adult might gather four tools for a project in one trip. The ADHD individual must retrieve one tool at a time, failing to see the big picture and the equipment that might be needed.
- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained effort. Homework and schoolwork are often an ordeal for the ADHD Child and his/her parents. What should normally take 30 minutes requires three hours and after the ordeal, both student and parent are exhausted and traumatized.
- Often loses things necessary for tasks or activities. ADHD Children misplace pencils, notebooks, and other needed equipment. They forget lunch money or inform you 20 minutes before bedtime that they need a large poster board for a project the next day.
- If often easily distracted by extraneous stimuli. Noises, conversation, flying birds, movements by others - almost anything can draw the attention of ADHD Children from their task at hand.
- If often forgetful in daily activities.

These symptoms are related to hyperactivity...

- Often fidgets with hands or feet or squirms in seat. ADHD Children look much like a running motor with a rough idle. If we imagine a video recording of the ADHD Children, their body is almost constantly in movement, importantly, purposeless movement.
- Often leaves seat in classroom or in other situations in which remaining seated is expected. Depending upon the severity of the hyperactivity, ADHD Children have difficulty remaining seated in school, church, family gatherings, etc. In school, ADHD Children are known to "pop up" from their seat, as though gravity was suddenly canceled in their area.
- Often runs about or climbs excessively in situations in which it is inappropriate. Younger ADHD children are climbers, runners, bouncers, tumblers, and jumpers. As the ADHD Child matures, he/she may report an internal sensation of a "running motor" or restlessness. Hyperactivity in ADHD adolescents can also take the form of finger drumming, restless legs, excessive humming/singing/whistling, and even object-drumming. ADHD teens often turn kitchen canisters and tables into drum sets.
- Often has difficulty playing or engaging in leisure activities quietly. As the excitement builds in an ADHD Child, so increases the voice and physical activity. When playing video games, ADHD Children often shout, yell, and physically act their participation.
- Often "On the go" or acts as if "driven by a motor".
- Often talks excessively. ADHD Children and Adults talk and question excessively. Questions are often totally unrelated to the task at hand. ADHD in adults often produces the "fast talker" we find in certain occupations.

These symptoms are related to impulsivity...

- Often blurts out answers before questions have been completed. Labeled "disruptive" in the classroom setting, ADHD Children fail to raise their hand or await proper acknowledgment before speaking in group situations.
- Often has difficulty awaiting turn. If we study the actual location where ADHD Children have difficulty, it's often when they are waiting - the cafeteria line, riding on the bus, in line before recess, etc. During such times, ADHD Children can't control their urge to physically touch/poke or irritate others.
- Often interrupts or intrudes on others. ADHD Children butt into conversations, interrupt adults, interrupt games, and demand responses to questions when the parent/teacher is already engaged. ADHD Children have few "social graces" for this reason.

Neurology and ADHD

- The ADD Medical Treatment Center of Santa Clara Valley list absolute indications and suggestive indications of the underlying neurological basis for Attention-Deficit Hyperactivity Disorder (ADHD).

Absolute Indicators of ADHD Neurology

- Hyperactivity/Fidgetiness
- Impulsivity (hyperactivity of the mind)
- Unexplained inattention for "boring" activities
- Primary nocturnal enuresis (bed-wetting)
(48% of ADHD children have bed-wetting)
- Episodic Explosiveness or Emotional Outbursts

Strongly Suggestive Indicators of ADHD Neurology

- Waking slowly, not snapping awake, or being excessively grouchy (91% of ADHD cases)
- Difficulty falling asleep at night (73%)
- Unexplained irritability and rapid frustration
- Unexplained negativity with or without depression
- Verbal and/or spatial dyslexia (number, letter, and often word reversals)

Manifestations of the disorder usually appear in most situations, including at home, in school, at work, and in social situations, but to varying degrees. Some people, however, show signs of the disorder in only one setting, such as at home or at school. Symptoms typically worsen in situations requiring sustained attention, such as listening to a teacher in a classroom, attending meetings, or doing class assignments or chores at home. Signs of the disorder may be minimal or absent when the person is receiving frequent reinforcement or very strict control, or is in a novel setting or a one-to-one situation (e.g., being examined in the clinician's office, or interacting with a videogame).

Deficit Hyperactivity Disorder (ADHD) in younger children is often readily identified by the presence of hyperkinesis or "hyperactivity". Rapid, purposeless, and nonstop movements are often found. These youngsters can seldom watch a thirty-minute television/VCR program due to their short attention span and hyperactivity.

In older children, above the age of twelve, the rapid body movements become less obvious although they can still be observed. Rather than running around the room or class, the older ADHD child exhibits leg shaking, drumming fingers, squirming, glancing about the room, and poor impulse control. The older ADHD child remains inattentive and will have difficulty with harder classes and frequently forgets homework.

Attention-Deficit Hyperactivity Disorder (ADHD) can persist into adulthood. The adult version of Attention-Deficit Hyperactivity Disorder (ADHD) contains rapid speech, poor judgment, poor impulse control, quick temper, and poor sustained effort. The adult "fast talker" frequently wears out friends with their hyperactive pace and talkativeness.

The following patterns have been found in Attention-Deficit Hyperactivity Disorder (ADHD) children and adults. The patterns are identified through a combination of professional research and twenty-seven years of clinical experience with ADHD.

Difficulty Understanding Sequence

Life moves in a series of sequences, one event connected to another and to another as our activities continue. ADHD children/adults have difficulty with understanding sequences, creating a variety of problems. For example, if you have an appointment in your hometown, you anticipate the amount of time needed to prepare, drive to the office, park the car, and register - perhaps 60 minutes. For ADHD Johnny, the short attention span makes understanding sequences very difficult. Getting ready for school is a nightmare as ADHD children don't understand that time is involved in every activity. They somehow figure you can get out of bed at 7:45 am, shower, eat breakfast, brush their teeth, gather their books, and get dressed -all before the bus arrives at 8:00 am.

The inability to understand sequences is the cause for the amazing ability of ADHD children/adults to always get caught when doing something wrong. ADHD children/adults are unable to be "sneaky" due to this trait. As a parent, you can watch the ADHD child grab a cola from the refrigerator and sit in the next room to watch television. You walk in, notice the cola is spilled, and question them about the spill - to which they reply "I didn't do it!" ADHD children can't figure out how you know the sequence of events that allows adults to figure out who did what. They can't project sequence forward or backward.

This inability to understand sequence and time creates many problems for the ADHD teenager. Told to be home at 7:00 pm, the ADHD teenager leaves at 6:00 pm to visit a friend. They walk to the local video store where they meet a friend with a new game. They follow the friend home to check out the game. A contest follows and the friend's mother provides soda and snacks so the ADHD teenager doesn't get hungry. Eventually, the friend's family bluntly tells the ADHD teenager to go home - it's 10:00 pm! Upon returning home, the ADHD teenager is at a loss to explain why he's three hours late, didn't call, and was rude to stay too long at the friend's home. Despite grounding, the same behavior is repeated within a few days.

"I don't know"

When confronted with a misbehavior and asked "Why did you do that?", the number one response from an ADHD child is "I don't know!" This response is a combination of two behaviors in ADHD children, the lack of sequence understanding and the presence of tangential behavior. In geometry, a tangent is the single point at which two separate objects touch. Due to a short attention span, ADHD children jump from one activity to another, the two activities often linked together by a glance. If asked to clean the top of their desk, they wipe a bit, examine the lamp, read a comic, staple a few things, pull tape from the dispenser, and reprogram the phone - one behavior leading to another as they look around the desk. Asked why the desk isn't cleaned off or why the phone is now reprogrammed to call only video stores - "I don't know" is the reply. ADHD children can't remember the sequence of events that ended with a reprogrammed phone. It's not unusual to send an ADHD student to the garage for a hammer, finding him/her 45 minutes later in the process of disassembling the lawn mower. Asked why - "I don't know!"

Hyperfocus and Outbursts

ADHD Children have very low levels of attention, focus, and concentration. Normal concentration/attention allows us to listen to conversation or watch a television program with extra attention to spare - to monitor the environment, listen for the oven buzzer or others in the house. ADHD Children may only have half the concentration of non-ADHD individuals. For this reason, if they intensely focus on a television program or play a computer game, they have no extra attention with which to monitor their environment. When playing a game, they don't hear calls for lunch because all 50% of their attention is on the game.

Both research and clinical experience tells us that ADHD Children can exhibit a type of "hyperfocus" - intense concentration and single-minded focus when the activity is very interesting. This situation is most often found when ADHD Children play computer games. ADHD Children may have an amazing ability to hyperfocus on a computer game, one of the few things that moves fast enough to maintain their attention, unlike homework or routine chores.

The hyperfocus found in ADHD Children is not a normal type of concentration or focus. Remembering the neurochemical aspects of Attention-Deficit Hyperactivity Disorder (ADHD), hyperfocus requires the child to use the maximum attention and sustained concentration available. For parents and teachers, imagine trying to thread a needle, in low light, while sitting in a row boat in the ocean - the waves tossing and rolling all the time. The amount of concentration required to thread that needle makes us anxious, tense, and irritable - as if somebody were asking us questions while we were trying to thread that needle. This is why ADHD Johnny is so fidgety while trying to listen to your conversation or correction.

In ADHD Children, hyperfocus allows them to participate in computer games or watch high-action movies - but at a cost. The amount of energy being used makes them very irritable. If a parent interrupts the computer game or movie with a question, a call for

lunch, or a request - the ADHD Children is likely to explode in a burst of verbal or physical aggression. His or her concentration has been broken and that neurochemical activity spills out into the room, or is directed at the interrupting source. It's not uncommon for ADHD Children, upon losing a computer game, to throw controllers or objects, stomp, scream, or behave in a way that tells us they are very upset. As a parent or teacher, we are shocked at their overreaction to such a minor situation. To see it from the viewpoint of an ADHD Children - imagine trying to thread that needle for 30 minutes - then accidentally dropping the needle overboard. We'd have a few choice words or a bit of behavior problem as well.

Dealing with hyperfocus requires patience and a minimal reaction to their overreaction. Interrupting ADHD Children who are hyperfocusing will always bring an inappropriate reaction, typically a verbal outburst. Parents are advised to not focus on their overreaction but remain on the topic. For example, interrupting ADHD Johnny's videogame to ask for help in the kitchen is likely to prompt a loud reaction such as "Why do I have to help! Sally never does anything! It's always me!" and so on for about five minutes. After the outburst, the parent might address the comments superficially but stick to the request as in "If you think I treat you unfairly, we can get together in an hour after lunch and discuss it. But right now, I need you to help me set the table."

"I think my child is possessed!" - Neurochemical Excitability

Of all Attention-Deficit Hyperactivity Disorder (ADHD) behaviors that bring ADHD Children to the attention of professionals, severe behavioral outbursts must be ranked in the top three complaints. One parent described the wild look in her son's eyes, the aggressiveness, kicking holes in the wall, and the physically threatening behavior with the summary "I think my child is possessed!" ADHD Children are normally more aggressive, pushy, argumentative and talkative. When upset, as when confronted or in a heated discussion, their neurochemical system explodes in a burst of energy and aggression that is far in excess to the situation.

Let's review what happens in a routine discussion or argument, as if it were being videotaped. If adults are in a discussion, the issue is first reviewed. If a disagreement is present, both sides present their opinion, normally at first, then more aggressively. As the discussion continues, we notice signs of neurochemical excitement - loud voice, an aggressive or resistive posture, name calling, references to past arguments, and often what I call the "adrenalin finger" - that pointed forefinger shaken at the other person. In healthy adults, as the neurochemical excitement increases, there is a sense that the discussion or argument is getting out of hand. Often a truce is offered as "We don't need to be yelling at each other. Let's take a break, get a cup of coffee, and talk about this later."

ADHD Children are already more excited and excitable than most children and adults. When upset or angry, the neurochemical excitement of anger or distress is added to the already-present high level of aggression and excitability. Imagine being very angry or upset, then suddenly receiving an injection of stimulants. At that point, you'd be out of control, talking and yelling nonstop, posturing, and physically aggressive. The upset

ADHD Child rapidly goes from "hyper" to out of control. Parents often find that normal "rough-housing" with the child or between siblings, prompts the ADHD child to become very aggressive and unable to settle down after the event.

Signs of neurochemical excitement and outburst:

- Verbally loud, threatening, screaming, and talking excessively. In psychiatry, we use the term "pressured speech" to describe an aggressive, nonstop talking that is difficult to interrupt. The ADHD Children are almost totally unreasonable at this point.

- Physical aggression is strong. The neurochemical excitement becomes so strong at times that arms wave, feet stomp, objects are thrown, furniture/walls are hit, and the ADHD Child closes the physical range and may be intimidating or "in your face". Repeated cautions to calm down have no effect.

- Aggressive pursuit is often present. Recognizing that the situation is out of control, a parent typically offers a truce or attempts to disengage from the argument. The enraged ADHD Child suddenly can't break off their attack. If you walk away, they pursue you - following the parent through the house - still yelling, intimidating, and hitting the walls as they go.

- A major component of an Attention-Deficit Hyperactivity Disorder (ADHD) is impulsivity, acting before thinking. ADHD Children have difficulty understanding consequences of their behavior, a component related to their problems understanding sequences. For this reason, enraged ADHD Children can be very dangerous and threaten or engage in high-risk behavior. They may destroy their favorite possessions, run out the door, strike at parents/teachers, curse, or threaten suicide. Amazingly, all those behaviors can surface simply because you've asked the ADHD Child to take out the garbage.

- Normal parenting techniques used for discipline or behavior are totally ineffective during these episodes. After the outburst is over and the ADHD Child does settle down, they are always remorseful and apologetic but the parents are traumatized.

Dealing with this excessive chemical reaction involves several components.

- Address the ADHD Child in a calm manner. A loud voice will only increase their reaction to being interrupted or addressed.

- Expect a verbal reaction. Attention-Deficit Hyperactivity Disorder (ADHD) children have "quick-draw mouth" - a verbal reaction and reflex anytime they are addressed or interrupted. **I often encourage parents of ADHD children to become deaf for ninety seconds after asking the ADHD child a question.** A simple comment such as "Jimmy, can you take your glass into the kitchen for me" produces an aggressive "Why!? Jennifer leaves her glass in here all the time! I'm not the only one with an empty glass around here! You never tell Dad to take his glass to the kitchen! He can do anything!" Expect an overreaction to your comments or requests.

- Don't take the verbal reaction personally.** Parental focus on the ADHD Child's overreaction will often prompt an emotional and behavioral explosion. When the comments include such gems as "I wish I didn't live here!" or "Jennifer is the favorite around here!", the natural tendency is to defend yourself or address the comments. Addressing their reaction only side-tracts the original discussion and raises their agitation. **Ignore the reaction and stay on your original topic.** Often a comment such

as "I'm sure there are times you don't like our family rules. If you want to talk about that, we can get together after you take your glass into the kitchen."

ADHD Children are often diagnosed as being "hyperactive type" or "inattentive type" - or the combined version. There is difference in identification with these two types. The obviously hyperactive child is often identified within the first week of kindergarten or first grade. Parents arrive at a professional office with a note from the school principal, often demanding that the child be seen by a psychologist or pediatrician. These hyperactive children have been running around the room for three days at that point.

The inattentive type of Attention-Deficit Hyperactivity Disorder (ADHD) is more difficult to detect. The inattentive child is often labeled a "dreamer", "immature", "in a world of his/her own", or parents are told the child should be held back. As all six year old children are somewhat flighty at times, the inattentive child is typically advanced in school with the understanding that they will probably mature as they age. For this reason, inattentive ADHD Children often aren't identified until they are discovered to be one or two grades behind (see Academic Problems).

Academic Problems

-ADHD Children typically have many academic problems. Despite being intelligent, academic performance is often below grade level. The best way to visualize the difficulty is to image an automobile with a Rolls Royce engine (the IQ/ability) and a go-cart transmission (attention/concentration system). The power of the engine is not getting to the wheels due to a difference in the transmission capability. Engine performance is only as powerful and efficient as the transmission system. If a child's intellectual ability (IQ) is measured at 115 and his/her concentration "IQ" is 75 - academic performance will most likely be at the "75" level - with hyperfocus bursts of sheer genius at times. In this situation we find very bright children often performing one or two grades behind despite amazing abilities to reprogram the school computers.

-Without treatment, ADHD Children rapidly lose ground in school. Imagine an ADHD Child with only 75% concentration. For each grade completed, he/she retains 75% despite the IQ level. After four grades in school, the ADHD Child has retained only three grades and is now one grade behind. At this point, the child begins failing and lacks the foundation to understand some more complex math concepts.

Attitude Problems

Parents often asked about the risks involved in both medication treatment and not treating Attention-Deficit Hyperactivity Disorder (ADHD). Untreated ADHD Children can experience academic failure and behavior problems but more importantly, they often sustain damage to their self-confidence and self-esteem. Years of untreated ADHD gradually wear down the self-esteem of the child, creating a commonly found "ADHD attitude".

The "ADHD attitude" forms as a direct result of lots of adult attention. ADHD Children receives lots of attention but when we monitor that attention with a camcorder, we find that the attention received is about 90% negative. Adults are constantly attending to the

ADHD Child with comments like "don't touch that", "sit still please", "stop that singing/drumming/moving", or "leave your sister alone". The ADHD Child finds the same type of attention at school, the teacher commenting "sit down", "please pay attention", "your work is too sloppy", and "leave your neighbor alone". As time passes, the student develops a negative view of himself or herself. Comments we often hear from hyperactive youngsters are "I can't do anything right", "they're always on my case", "they never say anything to my sister", or "no matter what I do I get into trouble." ADHD Children often describe themselves as "stupid" or a troublemaker. Personality development can be permanently altered or damaged by the presence of an ADHD attitude. With proper treatment of the hyperactivity, this self-view can gradually change to a more positive self-image. If the change does not appear in time, counseling in this area might be needed. One child recently treated at the office, when asked how his school situation had changed since medication treatment, replied "Now I got three friends!" It's important to remember that untreated ADHD often prevents the ADHD Children from obtaining and keeping friends. Like an octopus, the hyperactive student is constantly touching, hitting, poking, slapping, and irritating anyone who enters their body zone/range. For that reason, other students keep their physical distance from the hyperactive octopus.

Parents of ADHD Children: Issues

Parents of ADHD Children often develop difficulties of their own due to the constant supervision and effort required by the ADHD son or daughter. Commonly encountered parental issues:

"I can't take it anymore!" Many parents arrive exhausted and overwhelmed by the constant stress involved in rearing ADHD Children. Single parents are particularly vulnerable to being gradually overwhelmed by the night and day coping required with ADHD Children. At times, parents may require treatment for stress, anxiety, or depressive reactions.

"They say he's all boy." As the infant grows and the symptoms of ADHD surface, parents begin to question the activity level of their child. As they compare their child with other children, they ask the opinions of relatives, friends, and others. Initially, parents are often told "He's just all boy". While many later stick to their original assessment as "all boy", you'll notice that nobody volunteers to baby-sit that "all boy" child.

"We're both crying by the time homework is over!" Homework time, labeled "homework hell" by some parents of ADHD children, is often so stressful that both child and parent are traumatized by the experience. If the child is receiving medication treatment, it is not unusual for the child to experience a period of "emotional instability" after school, as the school-time medication loses effectiveness. Homework during that time would involve crying, yelling, temper tantrums, frustration, etc.

"I must be a bad parent!" With ADHD Children, normal parental discipline and educational techniques don't work. Your neighbor offers "I did this (technique) and Billy hasn't repeated it since!" If your child has ADHD, use of that technique will have little or

no effect. After trying various recommendations and reading parenting books, and still nothing works, parents become demoralized and feel they are at fault. In reality, a completely different approach is often needed for ADHD Children.

"Dealing with this is ruining our marriage!" Selecting a coping style to deal with ADHD Children often places parents at odds. One parent may come from the "All he needs is a good spanking" school of discipline (totally ineffective by the way) and the other desires to protect and understand the condition. Parents also argue over issues of medication, who does homework, and who deals with the school. Parents of ADHD Children often receive daily notes from teachers/principals - the record at my office being 37 discipline slips in a two week period. When the marriage is troubled in this manner, marital counseling and support is often needed.

Treatment of ADHD often involves a multidisciplinary approach and includes physicians, therapists, educators, and families. Children and adults with mild ADHD may require minimal professional intervention while severe ADHD may require multiple medications and professional interventions.

Medication

Medication for Attention-Deficit Hyperactivity Disorder (ADHD) has been the treatment of choice for many years. Three groups of medications have been utilized: stimulants, antidepressants, and tranquilizers. Stimulants have the best track record, working very well in 65 - 75 percent of cases. Children with the inattentive type of ADHD frequently require a low dose to obtain a favorable response. Antidepressants can be of help, especially when bed-wetting is also part of the ADHD symptom picture. Tranquilizers have been used although typically in special cases, as when the ADHD features are related to neurological damage or head trauma.

Counseling for ADHD

Counseling can help both the ADHD child and his family understand and cope with the disorder. Cognitive approaches often assist the ADHD student with developing coping skills and decreasing impulsivity. Counseling often focuses on self-control, respecting others, and decreasing negative self-concept that often accompanies ADHD.

Home/Classroom Management Techniques

A variety of home and classroom management techniques are found in ADHD research and literature. Recommendations abound and several are listed in this paper. Clinical experience also provides "tricks of the trade" that are shared via the internet or in literature. Perhaps one of the best discovered by this author deals with the "withdrawals" experienced by some ADHD children after school, as the Ritalin medication leaves the system and the child becomes grouchy and hypersensitive. One pediatrician recommends a 12 oz. Mountain Dew which serves to "flatten out" the angle of the withdrawal. Thousands of internet sites are devoted to Attention-Deficit Hyperactivity Disorder (ADHD) and offer these and other suggestions for family and school management.

Discipline and Home Management Recommendations

The following two sections offer a program of discipline helpful in Attention-Deficit Hyperactivity Disorder (ADHD) children as well as a list of home management suggestions. The "Highway Patrol Approach" has been outlined by this author while the home management suggestions have been available in the public domain for many years.

The Highway Patrol Approach to Discipline

The Highway Patrol Approach uses the discipline and correction methods of the adult world with children. The Highway Patrol Approach is strictly business, not emotional or reactive, and corrects behavior through punishment (the fine) and bringing attention to the incorrect behavior. If you are speeding on the highway and are pulled over by the Highway Patrol, after viewing your license and registration, the conversation goes something like this:

Highway Patrol: "Mr. Jones you were clocked going 65 in a 55 mile per hour zone." He has just told you the incorrect behavior.

Highway Patrol: "The fine for speeding in this state is \$85.00. Please sign this ticket." The officer has informed you of the punishment for that offense.

Highway Patrol: "Have a nice day." The officer remains polite and businesslike.

He does not ask why you were speeding. He does not try to make you understand the reason for speeding laws in that state. He does not insult you with "How can you be so stupid!" or "Where did you get this junker of an automobile?"

The Highway Patrol Approach thus involves three steps:

Step 1: Identify the offense or incorrect behavior.

Step 2: Inform the offender of the punishment/fine.

Step 3: Remain polite and business-like.

When used with children, the Highway Patrol Approach is effective in reducing anger, hostility, and incorrect behavior. The fine for speeding won't bankrupt anyone, will sting the pocketbook, but is not unbearable - nor is it easy to ignore. This approach has been found the most effective in maintaining adult behavior.

When we use this same approach with children, it decreases the anxiety and anger often associated with parental discipline in both the children and the parents. By identifying the incorrect behavior, providing an appropriate fine or punishment, and maintaining a calm, business-like interaction, we decrease the misbehavior while continuing our good relationship with the child. An example:

Parent: "Jimmy, you shoved your brother and you know we don't allow shoving and hitting in this family. I want you to go to your room for 15 minutes. When your time is up you can join the rest of us and watch television. We'll see you in 15 minutes."

Variations in the Highway Patrol Approach That Create Misbehavior

The Highway Patrol Approach, like parental discipline, could be altered in a way that accidentally creates increased bad behavior. Some variations in parental behavior:

Excessive Fines

The punishment/fine must always focus on correction - not excessive punishment.

If you are audited by the Internal Revenue Service (IRS), their opening line goes something like "This is not a punishment. This audit is simply to insure compliance."

If a new law passes in your state that makes the fine for speeding \$10,000.00 - the majority of adults would lie, try to evade arrest, or do anything in their power to avoid getting that ticket for speeding. Nobody tries to avoid an \$85.00 fine unless they have an outstanding warrant for another crime.

With children, excessive punishment ("You're grounded for six months!!") almost forces children to lie and cover-up mistakes and offenses. If the punishment is short-and-sweet, designed only to "insure compliance" with the rules/regulations, the child feels no need to lie.

Unpredictable Fines

Another law is passed in your state that allows the arresting officer to create his/her own fine - anything from giving you \$5,000.00 to beating or shooting you on the spot. If arrested, unpredictable fines prompt the offender to manipulate - trying to get the lowest fine possible. When parental discipline is unpredictable, ignoring offenses sometimes while excessive punishment at other times, a very manipulative child is created.

Unpredictable fines produce behaviors such as "sweet talking", crying spells, lying, attempts to influence ("I've got a relative that's in law enforcement!"), and even threats ("My next door neighbor is an attorney!"). Consistency in fines avoids manipulation in both law enforcement and parental discipline.

Canceled Fines

If you are stopped for speeding and fined \$85.00, then receive notice in the mail that your fine was canceled, you are more likely to continue speeding. If children are punished - then "bailed out" by the parents - they are likely to continue the incorrect behavior as they never suffer the consequences of their behavior.

Children that are frequently rescued from the logical consequences of their misbehavior gain the feeling that rules don't apply to them. As time passes, their misbehavior often increases in severity to the point that a rescue isn't possible. The offender is then shocked that they will actually be punished. This situation is often found in teenagers who are frequently given probation or no punishment for offenses as a minor (under 18 years of age), then are shocked when sentenced to six months incarceration for an offense after turning 18 years of age.

Harassing Officer

You are fined for speeding while driving to work on Monday. For the next four days, that same Highway Patrol officer stops your car to remind you that you are a speeder, lecturing you with each stop. You develop resentment and bitterness, feeling you are being harassed after already paying for the original offense. This also happens when we continue to remind our children of their mistakes, a situation which creates resentment.

Insulting Officer

Almost all children and adults can accept their mistakes and punishment - if the punishment is appropriate for the crime/offense. However, imagine your reaction if you are stopped for speeding and during the process of giving you a ticket for speeding the Highway Patrolman offers comments such as "You're pretty stupid to be going this fast in this worthless automobile. You're probably the worst driver I've seen in months. Your parents obviously didn't raise you right! At this rate, you'll not have a license in six months. Did you get your license out of a gumball machine?"

In this situation, insults are more harmful than the actual punishment. When disciplining children, parents are often angry or upset, creating the temptation to "jab" at the child with insults. A child may learn from his or her mistake and accept an appropriate punishment, but insults continue to hurt long after the punishment is over. Insulting a child creates psychological damage that decreases their self-esteem. Imagine working at a business where your supervisor tells you how ignorant you are each time you make a mistake. You would lose your motivation to work, forget any plans for advancement or success, and develop resentment toward the supervisor and business. Children in trouble often offer comments like "My Dad thinks I'm stupid anyway. My Mom says I can't do anything right!" The idea is to correct - not insult.

The Angry Officer

Imagine your reaction when pulled over for speeding, you look in the rear view mirror, and the officer is cursing, angry in appearance, and walking toward your automobile as though he's going to rip the door off your vehicle. Your anxiety level increases and when he asks questions your voice is mumbling, hesitant, and shaky. You are terrified that his anger may come in your direction and for that reason, you "clam up", fearful of making any type of response.

When disciplining children, it's important that we provide our discipline, structure, and interaction without anger and hostility. Being terrified of a parent is not a form of respect - it's a form of intimidation in which violence is respected, not the individual/parent. Discipline provided by an angry parent, often ranging in form from yelling and screaming to physical threats, sends a strong message to children that verbal and/or physical violence and aggression is acceptable - as long as there's a reason and you're upset. Parents who use the yell-and-scream method produce children who yell and scream. As time passes, everyone in the home yells and screams so much that the home is totally out of control by the time the children are teenagers. Those teenagers then mature to yell and scream at their sweethearts, spouses, and eventually their children.

Our best bet, don't discipline your children when you're angry or upset. Remember, it's business - not personal. In all interpersonal interactions, from disciplining children to a professional boxing match, the winner is the individual who maintains control - not the most aggressive or angry.

Summary:

Both children and adults learn from mistakes. Corrective action should increase compliance with the established laws and rules of behavior - not harshly punish or intimidate the offender. As in the adult legal system, punishments are designed to fit the crime and discipline is conducted in a business manner. As children misbehave and make mistakes, our job as parents is to guide them in the correct direction. Guiding just about anything is done with a series of small corrections, not intense shoves or overcorrections.

Be firm. Establish clear ground rules when the child is young and keep these rules (with whatever needed amendments) on into adolescence. As the child improves in judgment, give him more leeway.

Do not flood the child with petty time-consuming decisions; for example, what dress to wear, what shirt, etc. If he dawdles and shows indecision, then make these decisions for him.

Whenever possible, do consider his opinion in some larger matters; for example, to go to Jimmy's birthday party, to go fishing with friend, etc. If there is no real reason to deny the child, then allow him the option of "yes" or "no." However, many ADHD youngsters will need time to picture the situation and think it through before deciding.

Do not haggle or negotiate or wheedle about small things: an extra TV program, whether or not a helping of a new food is accepted, etc. A decision, even if it's in error, is better than haggling. Have faith in yourself.

Give the child chores by all means: setting the table for supper, helping serve at table; clearing the dishes, making the bed, etc. Boys as well as girls should do these chores. Parents must share their duties and chores with their ADHD child for the child's good. Such activities build self-discipline and a sense of responsibility. Select one or two chores and many calm reminders to get these chores done. Withholding a desired privilege for a short time may be necessary if the child fails to do the chore assigned.

Be prepared to accept the absentmindedness of most ADHD children. These youngsters need to be reminded again and again but without the escalation of irritation when directions or reminders need to be given over and over. When you have to repeat a direction say it each time as though it were the first time. These children are not being willful and stubborn when they can't remember; at this point in time, they just can't keep the many things we expect them to remember at the forefront of consciousness.

Be alert to the ADHD youngsters' absentmindedness in regard to care of tools and other implements, toys, etc. Note where you see the child lay the kitchen shears, saw, hammer, etc.

Check later and if the object is still there, give a calm reminder to put it away properly.

Short lists of tasks are excellent to help a child remember. A list is impersonal and reduces irritations and the child will gain satisfaction as he checks off tasks completed. Many ADHD youngsters seem to "never hear" or to ignore parents' directions and commands. Often these children do not process multiple requests quickly or accurately. Therefore, it helps if the parents first make sure they have the child's attention before making a request. After they've stated their wish in simple, clear, one-concept commands, the child should be asked to repeat what was said. Speaking at a slower rate of speed to the child often is helpful too.

Since many children with ADHD are disorganized, they may sometimes have difficulty relating an event in proper sequence. Family members often need to quietly ask, "Who, what, where, and when" to get the necessary information. Again, a calm, uncritical and not-irritable manner should be the rule.

A common characteristic of many ADHD children is their difficulty in waiting their turn, e.g., in playing a game or when participating in a conversation. Some interruptions when adults are talking may be allowed, for the youngster is impulsive. However, having permitted some infractions of good manners, parents should correct the child sharply if he/she persists in interrupting - send him from the table or discipline him in a similar fashion if he should continue with this behavior.

Do not permit the ADHD child to be unduly loud and noisy in a public place. Do something about it quickly, then and there, even if it is embarrassing for all concerned. Saying "Just wait 'til I get you home" will not help the child and will only make parents feel frustrated.

Routines are helpful for all children and seem to be particularly needed by the ADHD child: a regular time for meals, homework, TV, getting up and going to bed. Each family should find the schedule that suits it best.

In the majority of instances, parents should not try to tutor their own child. It is helpful to a youngster who has problems in reading to have someone in the family read material aloud for content purposes. But to "teach" a child spelling or reading words, or to drill him/her on the concepts of mathematics, is usually unsuccessful. More is lost because of the strained relationships which often result than is gained in improved skills.

Punishment should be: Designed to fit the child and to vary with the offense. The cardinal rule is to "punish behavior and not the child. Generally, physical punishment should be avoided because other forms of discipline (short periods of isolation or withholding privileged activities) focus more on the behavior of the child and less on the

child's self-concept. Realistically, however, some physical punishment is likely, and care should be taken to be sure that it is not too severe or prolonged.

Punishment should be of short duration. It must clear the air; the parent should not continue to accuse and grumble, but the child may be allowed to grumble a bit. Help other members of the family recognize and understand the ADHD youngster's differences. This child can't help being impulsive, loud, forgetful, clumsy, etc. The siblings' patience with their brother or sister who has these problems will be of great assistance to him.

Parents themselves need to come to terms with their child's deficits and strengths. The child with ADHD has a handicap with which he will often need help for many years. Goals should be those that challenge but do not extend beyond his capabilities. If parents can accept their child's assets and liabilities, the child can then begin to accept himself. The siblings' patience with their brother or sister who has these problems will be of great assistance to him/her.

As Attention-Deficit Hyperactivity Disorder (ADHD) involves the neurochemical system, we can expect the child/student to become more excited and "out of control" in certain situations. The more people in a room, the more excited the ADHD child becomes. The more noise or activity in the environment - the more rowdy and talkative. Be prepared for more excited and rowdy behavior in situations in which there is more action or normal excitement - as around the holidays or birthdays.

Children with Attention-Deficit Hyperactivity Disorder (ADHD) have a "quick-draw mouth". Almost any request for performance or activity, taking out the garbage, doing homework, or picking up something - will be met with a quick-draw, fast verbal response. The response is usually a complaint, whine, or other negative comment as in "Why do I have to do it!?"

Parents of Attention-Deficit Hyperactivity Disorder (ADHD) children are advised to become deaf for at least 90 seconds after each request of the child - ignoring that verbal reflex they possess. Remember: as Attention-Deficit Hyperactivity Disorder (ADHD) is a neurochemical condition - the longer we discuss something with the ADHD child - the higher his/her excitement becomes. A general rule: All requests are short and their quick-draw response is ignored. Responding to their quick-draw response only prolongs the excitement and makes the child more rowdy or disruptive.

Conclusions

Attention-Deficit Hyperactivity Disorder (ADHD) is a common childhood, adolescent, and even adult condition. ADHD is typically treated with a combination of medications, home management methods, and school techniques.

This handout is provided to increase knowledge and understanding of Attention-Deficit Hyperactivity Disorder (ADHD). Other information regarding the medical treatment,

educational techniques, and management of ADHD is available in your professional community, local resources, and on the Internet. I hope this handout has been helpful.