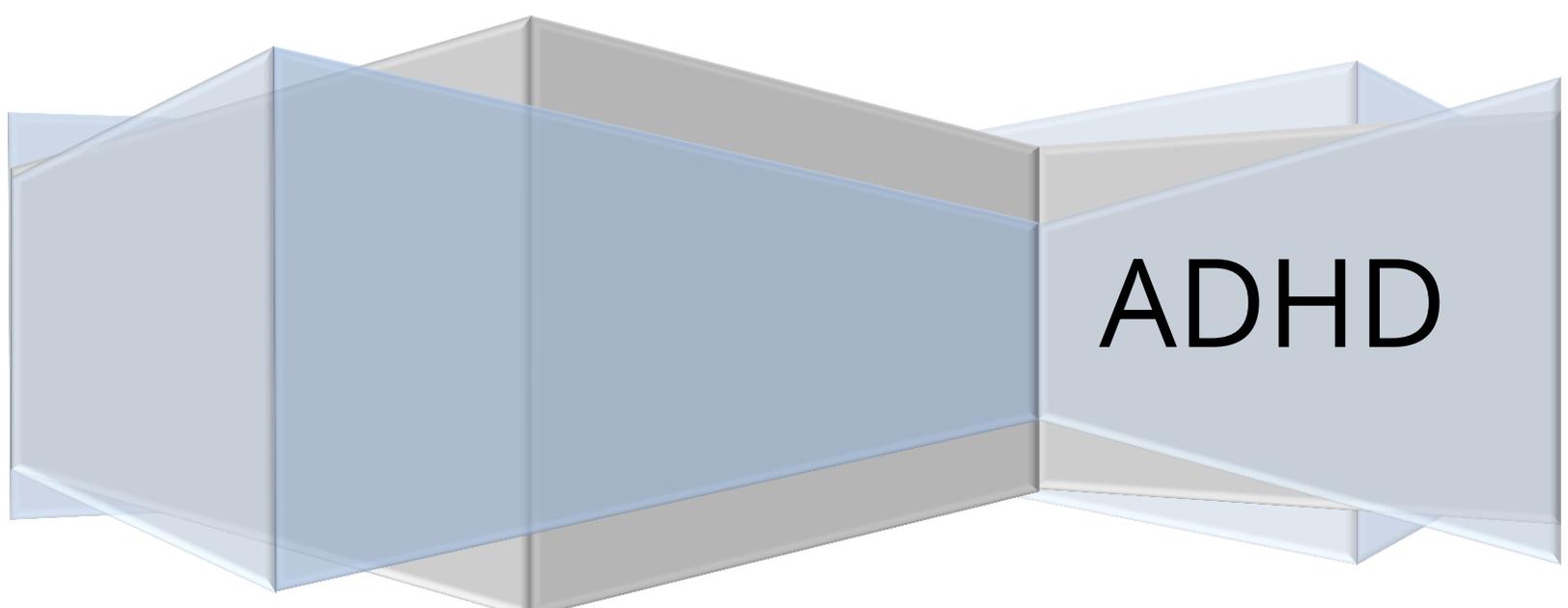


The ADHD Information Library at Newideas.net

**An Introduction to
Attention Deficit Hyperactivity Disorder
Douglas Cowan, Psy.D. MFT**

The Medical Practice of Dr. Jan Mensink

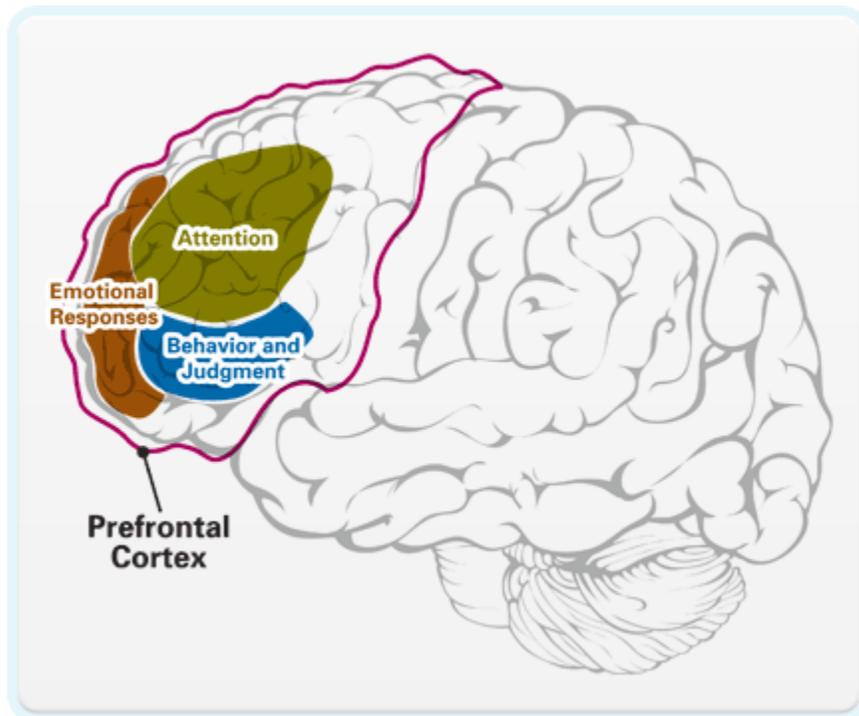


ADHD

What is ADHD?

"What is ADHD?" ADHD is the short abbreviation for "**Attention Deficit Hyperactivity Disorder**", which is one of the most common childhood behavior disorders. It is estimated that somewhere between 5% and 9% of all children have ADHD.

Of all children referred to mental health professionals, **more are referred for ADHD** than for any other condition. But ADHD is also of all psychiatric disorders, with several effective options ranging from **medications to alternative therapies, psycho-social treatments, and educational interventions.**



Those with ADHD can have problems in many of the areas of their life, including **home, school, work, and in relationships.**

ADHD is a **chronic and unrelenting** problem. Though it will change in form through the years, it will persist into adulthood and impact all relationships including marriages, parenting, and work performance.

"Attention Deficit Hyperactivity Disorder" or "ADHD" is a **neuro-biological disorder**. It is not the result of bad parenting, or watching too much T.V., or a lack of either discipline or love by parents. While any or all of these may exist and be problems, the ADHD would exist even if Ozzie and Harriet were the parents.

ADHD has **neuro-biological** roots. There are very **strong genetic factors** that influence both **brain function and brain development**. There are also other potential contributing factors that might cause one to acquire ADHD-like symptoms, such as **brain injuries** received either in utero, or after birth, or **high fevers** from infections, and so on. While we would argue that head injuries should be classified as "head injuries" rather than as "ADHD", in most studies they are included as ADHD.



ADHD impacts individuals in five main areas of their life:

- **Inattention,**
- **Impulsivity,**
- **Hyperactivity,**
- **Boredom**
- **Time**

Inattention causes people to have problems paying attention to routine or boring tasks, or staying focused on a task long enough to finish the task, especially if the task is not very interesting. The person might be able to focus on interesting projects or entertainment such as video games for long periods of time, but it is the mundane tasks of life that are very difficult.

Impulsivity is a lack of self-control. Impulsive behaviors, or choices, can cause havoc in relationships, work, school, or life. Saying things, or doing things without thinking first, or considering the consequences, is a pretty classic symptom of ADHD in both children and adults.

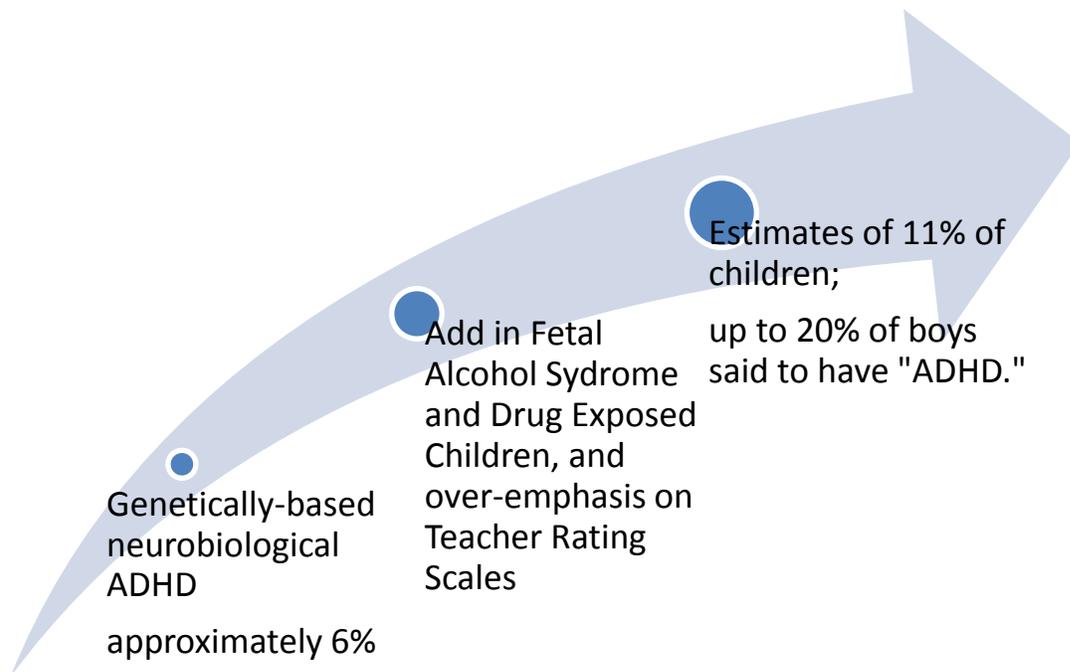
Hyperactivity is "excessive, non-goal directed, motor activity." Many (though not all) with ADHD are "bouncy" like Tigger, hyperactive, always "on the go," and restless. The standard line is that they act as if they are "driven by a motor." This is mostly seen in younger children, and this is the symptom most likely to be "outgrown" as one matures.

Boredom - Unless the task is very stimulating, like a video game or TV program or outside playing, those with ADHD are often **easily bored** by a task - especially bored by homework, math tests, balancing checkbooks, or doing taxes, and many of these tasks just never get done.

Time - Awareness of time – how long something takes, or has taken; and the importance of being prepared for the future vs. the importance of living in the "right now".

Prevalence: 11% of children (20% of boys)

- These statistics are likely exaggerated, and the criteria used is likely based on how the child or teen is behaving “now” rather than the life history. The diagnosis of ADHD should be reserved for those with a genetically based disorder with (a) an early onset; (b) severe and persistent symptoms.
- A better number for “real” ADHD is likely around ½ of the current numbers quoted and used. Maybe 6% of children and teens.
- There are many other reasons for why someone can be impulsive, or distracted, or un-focused, or hyperactive. Sometimes these reasons are medical, or emotional, or environmental. Sometimes the reason is simply the age or maturity of the child.



Adult Prevalence: Estimated 10 Million American Adults

About one-half of all children/teens with ADHD will “out-grow” it in adulthood as the brain matures (age 20 for females; age 30 for males).

A few years ago another reminder of this was published in a national survey of **1,007 adults with ADHD**. The survey looked at how adults with ADHD cope at home, at work, and in relationships with others.

What the survey found was that, **of those adults with ADHD:**

- 75% reported that ADHD strongly impacted their ability to stay focused to a task long enough to complete it;
- 70% reported that ADHD strongly impacted their ability to focus on what others were saying;
- 65% reported that ADHD strongly impacted their responsibilities at home;
- 60% reported that ADHD strongly impacted their ability to stay seated through a business meeting, or to organized projects, or follow through with projects until they are completed;
- **57% reported that ADHD strongly impacted their relationships with their families and friends;**
- 56% reported that ADHD strongly impacted their ability to advance in their work place or career;
- 47% reported that ADHD caused them to have to work harder than others just to accomplish the same amount of work as those without ADHD;

The survey group was asked about what they would like to accomplish, or treatment goals:

- 50% reported that they would like to get their house organized, and 28% reported that they needed to get their personal finances more organized;
- **38% reported that they needed to get their moodiness under control, and 26% wanted to improve their relationships with others;**
- **36% felt that their ADHD symptoms were still not under control,** and many report feeling **depressed** thinking about how hard it is to be an adult with ADHD.

The study was funded by McNeill Pediatrics, which, by the way, markets CONCERTA (methylphenidate HCl) for the treatment of ADHD in adults, as well as in children. Hallowell and Knochenhauer are both paid consultants for McNeill Pediatrics. So there is an element of this study that is designed to market CONCERTA to those adults who are not receiving any treatment, feel that their ADHD is not under control, and etc.

But this study should be more than that.

- IF conservatively 5% of the children in the USA have ADHD, and
- IF conservatively 50% of the children in the USA will “out-grow” their ADHD symptoms by the age of 20 or so, and
- IF there are approximately 300 million people in the USA,
- THEN there are conservatively 7,500,000 adults in the USA alone dealing with “adult ADHD.” And if 38% of them feel that their ADHD is not under control, or are depressed by their ADHD, and so on, well that’s a lot of people suffering from ADHD even into adulthood (38% of 7.5 million adults with ADHD is 2,850,000 adults who feel it is out of control or feel depressed because of their ADHD).

If you are an adult with ADHD, and you are feeling that you can’t get ahead at work because of it, or you can’t get organized, or motivated, or get your moods under control, there is help for you.

Yes, medications like Concerta can help. Stimulant medications can help to increase time on task, focus to boring tasks, and so on. Consider medications as a treatment option and talk to your doctor about it.

We also like people to try the combination of an ADHD diet (including high protein, low carbohydrate breakfasts and some caffeine), with ATTEND, Exress or Deprex (for mood stabilization) and Memorin for memory improvement. See the Different Types of ADHD for specific treatment strategies.

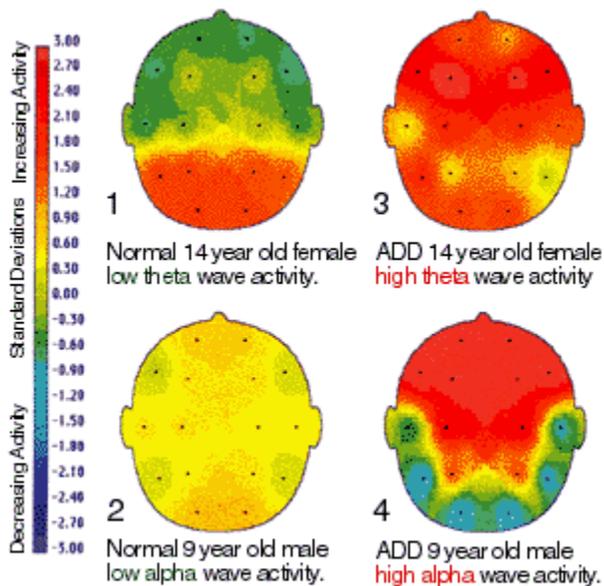
With either of the approaches above, counseling or coaching for ADHD as well as for skills and strategies to improve relationships and work performance are essential.

Neurology of ADHD

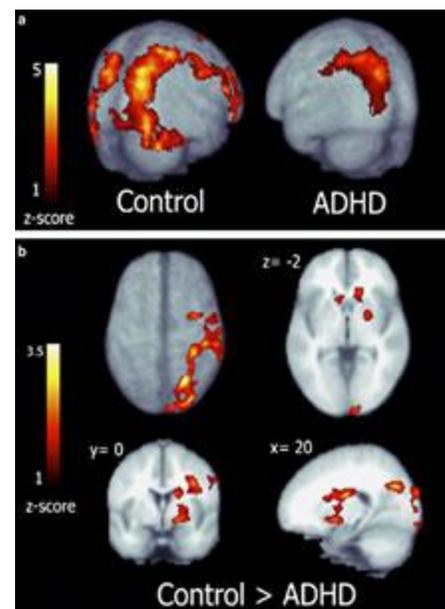
What is Happening in the Brain of a Person with ADHD ?

The most recent models describing what is happening neurologically in the brains of people with Attention Deficit Hyperactivity Disorder suggest that several areas of the brain may be affected by the disorder. Each of these areas of the brain is associated with various functions. They include:

- Frontal Lobes
- Inhibitory Mechanisms of the Cortex
- Limbic System
- Reticular Activating System, and more



Above is a sample Q-EEGs of two Attention Deficit Disorder children compared to two non- ADD ADHD children. The Attention Deficit Disorder children show excessive slow brainwave activity (theta and alpha ranges) compared to non- ADD ADHD activity. The slow brainwave activity indicates a lack of control in the cortex of the brain.



"Lack of control" is pretty descriptive of Attention Deficit Disorder kids. Medications, EEG Biofeedback training, Attend Nutraceuticals, and some other interventions, seem to change this and normalize, at least temporarily.

Impulsivity, Hyperactivity, and Lack of Inhibition

The frontal lobes help us to pay attention to tasks, focus concentration, make good decisions, plan ahead, learn and remember what we have learned. The frontal lobes also help us to behave appropriately for a given situation. Emotional issues such as anger, frustration, and irritability that come on impulsively in some types of ADHD probably come from the pre-frontal cortex.

The inhibitory mechanisms of the cortex keep us from being hyperactive, from saying things out of turn, and from getting mad at inappropriate times, for examples. These inhibitory mechanisms of the cortex help us to "inhibit" our behaviors.

It has been said that 70% of the brain is there to inhibit the other 30% of the brain.

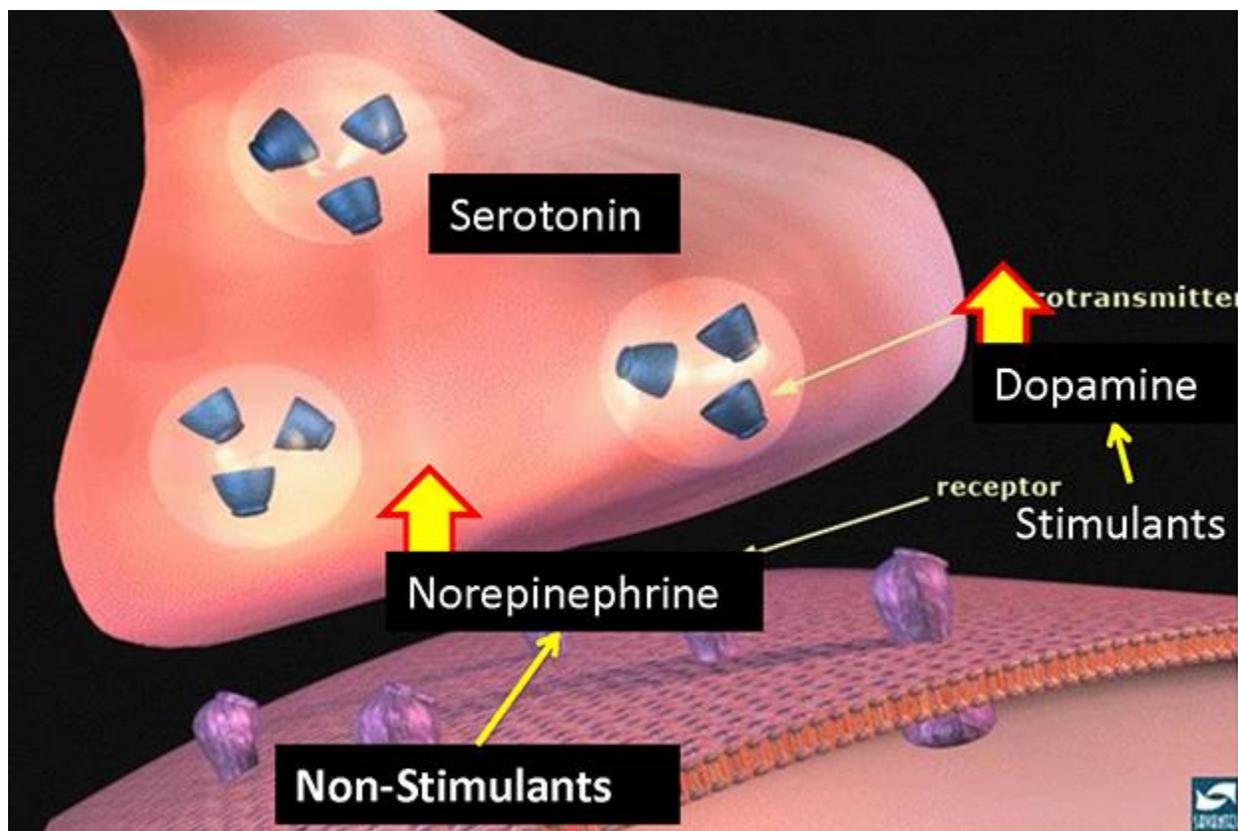
When the inhibitory mechanisms of the brain aren't working as efficiently as they ought, then we can see results of what are sometimes called "dis-inhibition disorders" such as impulsive behaviors, quick temper, poor decision making, hyperactivity, and so on.

The limbic system is the base of our emotions and our highly vigilant look-out tower. If the limbic system is over-activated, a person might have wide mood swings, or quick temper outbursts. He might also be "over-aroused," quick to startle, touching everything around him, hyper-vigilant. A normally functioning limbic system would provide for normal emotional changes, normal levels of energy, normal sleep routines, and normal levels of coping with stress. A dysfunctional limbic system results in problems with those areas.

Attention Deficit Disorder might affect one, two, or all three of these areas, resulting in several different "styles" or "profiles" of children (and adults) with Attention Deficit Disorder.

Glutamate, Dopamine, Norepinephrine, and $\alpha 2$ Receptors

One-third of the neurotransmitters in the brain are **glutamate**, and brain research is now looking at the intricate relationships between glutamate, **dopamine**, and **norepinephrine** in the functioning of **the pre-frontal cortex**. Glutamine is the precursor of glutamate. Research is revealing that the glutamate network neurotransmissions from the pre-frontal cortex to other areas of the brain are enhanced by dopamine and norepinephrine. Too little dopamine or norepinephrine is a problem, and too much is a problem. And the importance of glutamate in PFC functioning is beginning to come to the forefront in research.



Neuro-science is beginning to move away from seeing ADHD as just a problem with dopamine and/or norepinephrine, and is moving toward a better understanding of the **brain as a network**, and a network of relationships such as the relationship between dopamine, norepinephrine, the glutamate excitatory neurotransmitters which are about 30-35% of all neurotransmitters in the brain, and their relationship to ADHD.

One leading researcher is Amy Arnsten, Ph.D., Arnsten Lab, Dept of Neurobiology at Yale University. According to its website, the Arnsten Lab "studies molecular influences on the higher cognitive functions of the prefrontal cortex (PFC), with the overarching goal of developing rational treatments for cognitive disorders and mental illness... Research has focused on how the catecholamines **norepinephrine** (NE) and **dopamine** (DA), powerfully and dynamically modulate PFC cognitive function and physiology through intracellular signaling mechanisms." The lab helped Shire Pharmaceuticals in the development of **Intuniv** for ADHD treatment.

The Arnsten Lab has been able show how the relationship between dopamine and norepinephrine and the **ratios of dopamine to norepinephrine**, can impact and **improve cognitive functions** such as focus, memory, and attention. Too much or too little of either neurotransmitter decrease cognitive functions, both in terms of the performance of brain cells, and in the real world. But when the ratios and relationships are just right, performance is improved.

Their work, along with the work of many others, is often focused on the **a2-receptor** sites in the pre-frontal cortex. They have reported on the benefits of norepinephrine at these sites, and have also shown the benefits of **stimulating these receptor sites** with the medication guanfacine (**intuniv**) which **increases glutamate production** in the PFC. It appears that by doing this, guanfacine improves cognitive functioning in the pre-frontal cortex. This is potentially exciting because **Intuniv** (guanfacine) **is not a stimulant medication**.

But, speaking of stimulants, **other research** has shown that **small doses of methylphenidate** actually impact the effects of **norepinephrine** in the pre-frontal cortex more than it impacts the effects of **dopamine** in the PFC.

This research has also shown that when **the a2 receptors** in the pre-frontal cortex are **blocked** that the **symptoms of ADHD can be created** in a subject, including lack of self-control, impulsivity, and hyperactivity (Berridge et al, 2006)

Reticular Activating System and ADHD

What causes these various systems of the brain to get out of balance with Attention Deficit Hyperactivity Disorder individuals?

Why would these systems become under aroused or over aroused?

Is there one central system that controls or regulates these other systems?

The answer may be found with the **Reticular Activating System**. The Reticular Activating System is **the attention center in the brain**. It is the key to "turning on your brain," and also seems to be the **center of motivation**.

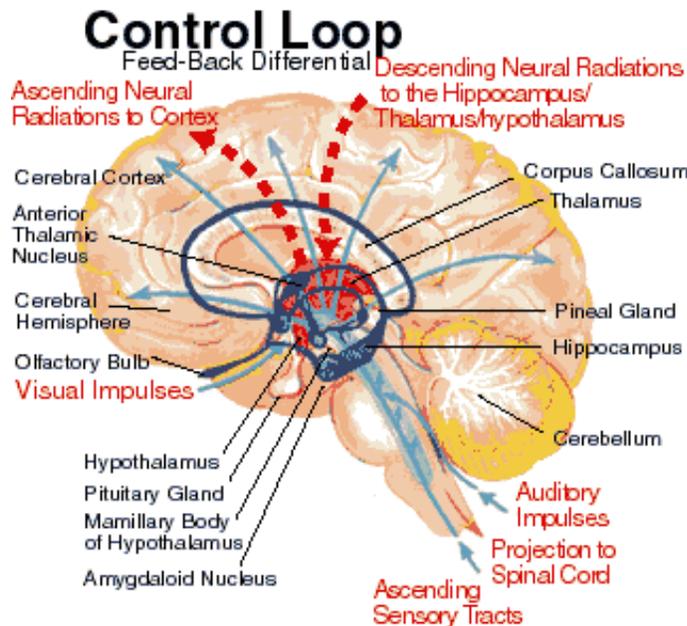
The Reticular Activating System is connected at its base to the spinal cord where it receives information projected directly from the ascending sensory tracts. The brain stem reticular formation runs all the way up to the mid-brain. In a way, the RAS connects the brainstem to the cortex in a communication network.

The Reticular Activating System is a very complex collection of neurons that serve as a point of convergence for signals from the **external world** and from **interior environment**. In other words, it is the part of your brain **where the world outside of you, and your thoughts and feelings from "inside" of you, meet**.

This Reticular Activating System is very capable of generating dynamic effects on the activity of the cortex, including the frontal lobes and its executive functions, and the motor activity centers of the brain.

The Reticular Activating System and Learning

The Reticular Activating System plays a significant role in determining whether a person can **learn and remember** things well or not, on whether or not a person is **impulsive or self-controlled**, on whether or not a person has **high or low motor activity levels**, and on whether or not a person is **highly motivated or bored easily**.



The RAS is the center of balance for the other systems involved in learning, self-control or inhibition, and motivation. When functioning normally, it provides the neural connections that are needed for the processing and learning of information, and the ability to pay attention to the correct task.

If the Reticular Activating System doesn't excite the neurons of the cortex as much as it ought to, then we see the results of an under-aroused cortex, such as difficulty learning, poor memory, little self-control, and so on. In fact, if the Reticular Activating System failed to activate the cortex at all one would see a lack of consciousness or even coma.

What would happen if the Reticular Activating System was too excited, and aroused the cortex or other systems of the brain too much? We would see individuals with excessive startle responses, hyper-vigilance, touching everything, talking too much, restless, and hyperactive. So the Reticular Activating System must be activated to normal levels for the rest of the brain to function as it should.

What factors could cause the Reticular Activating System to be either over-activated or under-activated? According to Harvard Medical School, current research strongly suggests that Attention Deficit Disorder – ADHD is caused in part by a deficiency of **norepinephrine** in the ascending reticular activating system. It is thought that the stimulant medications, such as Ritalin, increase the levels of norepinephrine in that part of the brain, as well as increasing the levels and effects of norepinephrine and dopamine in the frontal lobes.

This treatment strategy works well for the inattentive under-aroused ADHD kids, and somewhat well for the over-aroused impulsive-hyperactive ADHD kids. However, for the kids who have an over-aroused Reticular Activating System to begin with, the use of stimulants will often exacerbate the problems with temper, sleep, and hyper-vigilance or anxiety. For these individuals their physicians will often prescribe a norepinephrine antagonist such as Clonidine, or an antidepressant such as Prozac, which works to enhance the Serotonin driven inhibitory mechanisms of the brain.

ADHD Causes : What Causes ADHD ?

Some models that attempt to describe what is happening in the brains of people with Attention Deficit Hyperactivity Disorder suggest that several areas of the brain may be affected by the disorder. They **include the frontal lobes, the inhibitory mechanisms of the cortex, the limbic system, and the reticular activating system**. Each of these areas of the brain is associated with various functions.

There are several areas of the brain potentially impacted, and there are several possible "types" of ADHD. Daniel Amen, a medical doctor using SPECT scans as identified six different types of ADHD, each with its own set of problems, and each different from the other "types."

The frontal lobes help us to pay attention to tasks, focus concentration, make good decisions, plan ahead, learn and remember what we have learned, and behave appropriately for the situation.

The inhibitory mechanisms of the cortex keep us from being hyperactive, from saying things out of turn, and from getting mad at inappropriate times, for examples. They help us to "inhibit" our behaviors. It has been said that 70% of the brain is there to inhibit the other 30%.

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normal emotional changes, normal levels of energy, normal sleep routines, and normal levels of coping with stress. A dysfunctional limbic system results in problems with those areas. The Attention Deficit Hyperactivity Disorder might affect one, two, or all three of these areas, resulting in several different "styles" or "profiles" of children (and adults) with ADD ADHD.

Neurology of Attention Deficit Hyperactivity Disorder | Impulsivity

Go and Stop in the ADHD Brain

We have often felt sorry for those impulsive children who blurt out the first thing that comes to their mind when asked a question, especially if they are about to get into trouble. As most parents know, that first thing that comes out as the answer is usually a lie. And then the child has to spend the rest of the hour covering up the lie, that both he and his parents know is a lie. **This is a classic scene of a child with ADHD getting into trouble because of his impulsivity.**

As a remedy, we encourage parents to warn the child that they are about to be asked a very serious question, and that their honesty is absolutely required. And that the child is not to answer the question for 30 seconds after being asked, so that they can clearly think about what they want to answer and get it right the first time. This works. But it is not what this article is about...

Impulsivity in ADHD

Impulsivity in ADHD is seen in two ways:

- **either doing or saying something without thinking first; or**
- **not saying "no" to yourself, inhibiting yourself, when you ought to.**

It seems that a person with impulsivity as a part of their **ADHD has a normal ability to say "Go"** at the neurological level, **but their ability to say "No" or "Stop" comes just a fraction of a second slower.** As a result, things are often done, or said, without much self-control practiced.

Vanderbilt Research on ADHD

There is some very interesting new research out of Vanderbilt University's Center for Integrative and Cognitive Neuroscience that helps to explain impulsivity in ADHD. From their press release, here are the basics of the study: "We think of people who are impulsive as acting too quickly," said Gordon Logan, one of the researchers. **"Kids with ADHD are actually slower on the 'go' task than the control kids. It's not that they go too quickly; they stop too slowly."**

"The research provides new insights into how the brain controls movements, which helps explain the impulsivity of people with attention deficit and hyperactivity disorder," according to study co-author Jeffrey Schall, E. Bronson Professor of Neuroscience. "It also shows how mathematical models can be used to discover how the brain produces thought and action." Read about the new Vanderbilt Study on Impulsivity

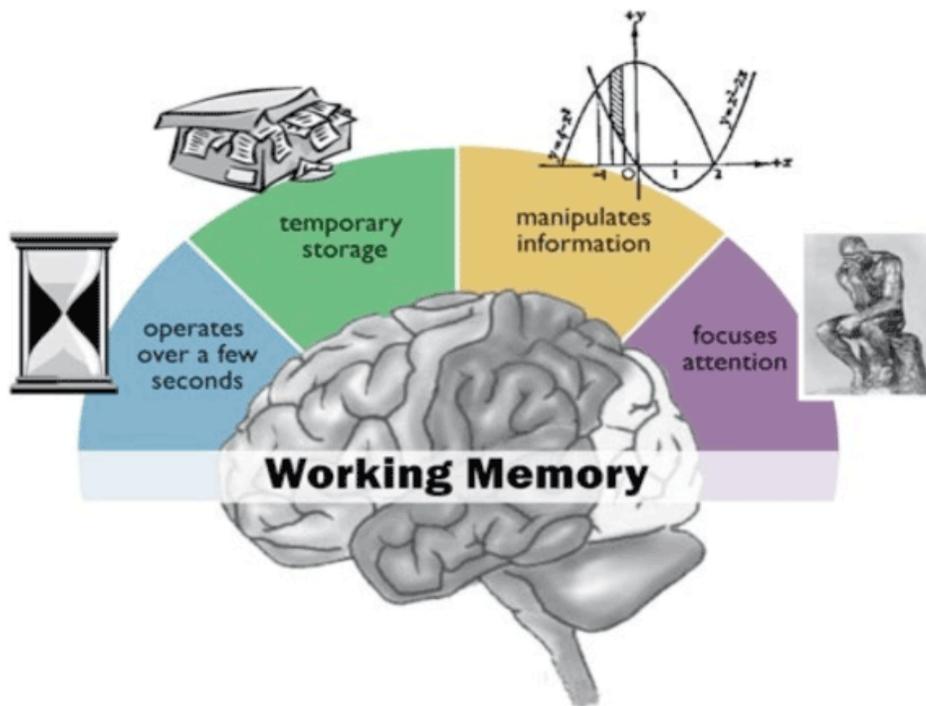
See our collection of ADHD Research articles, or read the articles below to learn more about the ADHD brain and the neurology of attention deficit hyperactivity disorder.

<http://newideas.net>

ADHD : What is "Working Memory"?

A common ADHD characteristic is the difficulty in **getting back to work, returning to the task, once having been distracted** by the shiny thing in the room, or outside of the room. **People with ADHD don't return to the task that they just left, they just move on to the next thing.** Even when having been distracted people without ADHD can keep in mind what they have been working on and why. This is referred to as "**working memory**" which is different from either long-term memory functions or short-term memory functions.

Working memory is remembering what you need to do, and how to do it, so that you can get it done before it's too late and while it still matters.



People with ADHD have **impaired working memory**. They have trouble keeping the information in mind that they need for the task so that they can complete the job or **reach the goal**. So they just **wander** from thing to thing, task to task, **without ever completing anything** really. This is a "working memory" deficit in ADHD.

This is a **time problem**, a **focus problem**, a remembering what it takes to get the job done problem. And yes, it is what you see in older people as their working memory and executive functions begin to wane.

In this sense ADHD is not a problem from a lack of skills or knowledge. It is a deficit of results - and results matter. It is a problem with performance.

Working memory deficits also **impact one's ability to tell time**. Not as in looking at a clock and knowing what time it is, but **rather being aware of how long something will take** to do, or how long it has been since leaving for school, or whatever.

ADHD causes an awareness of time deficit. ADHD causes people to **live in the moment** (which has now passed), **without really thinking much about the future**. Things in the **future simply have little value** when compared to what is happening right now.

As a result it is common to see people with working memory deficits from ADHD to be unprepared when the future does arrive. Homework is not finished, the report not done. Preparations for winter not made.

It's not procrastination as much as living in the "now". Both past and future have little value compared to the present.

Different Types of ADHD

- Winnie the “Pooh” - Inattentive, slower information processing, hypo-active
- Tigger – Impulsive, Hyperactive, always on the go. Doesn’t plan ahead.
- Rabbit – Rigid thinking. Perseveration. Over-focused.
- Piglet – Anxious, worried, nervous. Hyper-vigilant. Easily startled.
- Eeyore – Depressed, sad.

ADHD: The Over-Diagnosed and Over-Treated Controversy

- Yes, it is Over-Diagnosed
- Yes, it is Under-Diagnosed
- Yes, Ritalin and other medications are Over-Prescribed
- Yes, then are Over-Prescribed to Very Young Children
- Yes, Ritalin is Over-Prescribed – because it works really well

Intake Questions:

Why have you come for help now?

History:

- Pregnancy:
- Birth:
- Crawling:
- Walking:
- Speech Development:
- Ear Infections:
- Major Illnesses:
- Head Injuries:
- Seizures:
- Antibiotics:
- Allergies:
- Surgeries:

Symptoms of INATTENTION in ADD ADHD

- A lot of people, including his parents, complain that he just doesn't seem to listen when spoken to;
 - Because of not sustaining attention, or because of acting like a "space cadet," he doesn't finish his chores or homework;
 - He can't keep his mind on what he's doing for very long unless it is very exciting, or very entertaining;
 - He doesn't pay close attention to what he's doing, so he makes a lot of careless mistakes. Video games are an exception because they give immediate feedback, they are exciting, and they are fun. Chores and homework are not. The inattention is seen most with homework, chores, and other boring things that you want him to do;
 - He's really disorganized. Most commonly seen in spending three hours to finally finish his homework, then losing it at school (it's in his backpack), or forgetting to turn it in;
 - He really tries to avoid doing homework or chores;
 - He gets distracted easily, or pays attention to the wrong thing;
 - He is often forgetful and has to be reminded to do things often.

Symptoms of IMPULSIVITY in Attention Deficit Hyperactivity Disorder:

- He often blurts out answers in class;
- He can't wait his turn when he is playing games or at school;
- He interrupts others a lot, he just doesn't wait well;
- He tends to do things without thinking about them first;
- He does not consider the consequences of his actions.

Symptoms of HYPERACTIVITY in Attention Deficit Hyperactivity Disorder:

- He has happy hands and feet which fidget and squirm a lot;
- He just can't stay in his seat for very long when he's supposed to at school or the dinner table;
- He may run around too much, or climb on things he's not supposed to;
- Is too loud;
- He is "On the go" as if he is "driven by a motor";
- He talks too much;
- Leaves footprints across the ceiling

Important: At least some of these symptoms must have been seen before the age of seven. ____ YES ____ NO ; Also Important: At least some of the symptoms are seen both at home and at school. ____ YES ____ NO

- Could your child be playing a video game, or watching TV, and have the house burn down around him and not even notice?
- Would you rate your child's handwriting as good, average, or poor?
- Does your child seem to have good, average, or poor judgment about things?
- Does your child get into trouble because he doesn't stop and think about the consequences of his actions before he does things?

In solving problems, or doing homework, does your child seem "sluggish" in his thinking, or "impulsive" and deciding on the answer too quickly?

Does your child seem "spacy," "day dreaming," or not paying attention to what's going on, or does he seem to pay attention to everything that's going on around him and reacting to them all?

Does your child seem to have more of a cognitive processing problem (thinking), or an impulse control problem (behaving)?

Does your child seem:

Hypo-active	or	Hyper-active
Slow moving	or	Fast moving
Lethargic	or	Lacking inhibition or self-control
Passive	or	Over-active
Sluggish moving	or	Hyper-active
Sluggish thinking	or	Impulsive thinking
Brain fog, confused	or	Aware of everything in surroundings
Slow thinking	or	Normal thinking but distracted
Poor accuracy	or	Works too fast, guesses
Memory issues	or	Distracted, disorganized, loses homework
Pays attention to the wrong thing	or	pays attention to everything
Not disruptive	or	disrupts others around him

Trouble quickly identifying what things are important or not.
Impaired selective attention.

Or

Poor inhibition or perseverance to complete a task.
Distracted as it seems that everything is important.

- Little risk of co-morbid Oppositional Defiant Disorder (ODD).
- Medium to High Risk for Anxiety or Depression.
- Come from families with high rates of Anxiety Disorders, Depression, or Learning Disabilities.
- Treatment response to Ritalin is Moderate to Poor. 20% good, 65% moderate, 15% poor response.
- Good responders to social skills training. Makes them less shy.
- Good responders to cognitive behavioral therapies.
- May respond well to Strattera, which may treat the anxiety as well as inattention.
- Good responders to “internal” therapies, or psychosocial interventions.
- Tend to be more girls.

- Medium to High Risk for Oppositional Defiant Disorder
- Medium risk for Anxiety of Depression
- Come from families with high rates of ADHD, drug and alcohol abuse, ODD, and conduct problems.
- Treatment response to Ritalin is excellent (92% positive)
- Poor responders to social skills training. Get more aggressive.
- Poor responders to cognitive behavioral therapies.
- Stimulants may make anxiety worse.
- Internal therapies and psychosocial interventions unlikely to work.
- Tend to be more boys.

Things that Look Like ADHD But Are Not

- Mania, Manic-Depression, Bi-polar Disorder
- Head Injuries
- Fetal Alcohol Syndrome and Drug Exposed Babies
- Oppositional Defiant Disorder, or Conduct Disorders
- Depression
- Anxiety Disorders
- Grief

ADHD Medications

Stimulants > Methylphenidate based:

- Ritalin
- Concerta
- Metadate
- Focalin
- Daytrana

Stimulants > Amphetamine based

- ADDerall
- Dexedrine
- Desoxyn
- Vyvanse (pro-drug)

Non-Stimulants

- Strattera – NE re-uptake inhibitor
- Intuniv – a form of a blood pressure medication, stimulates α -2 receptor sites, may be helpful with symptoms of ADHD and Oppositional Defiant Disorder.
- Tenex is similar

Alternative Treatments

- ATTEND and EXTRESS by VAXA [[http:// Nutrition 2 You .com](http://Nutrition2You.com)]
- ADHD Diet Program [[http:// ADHD Diet .INFO](http://ADHDDiet.INFO)]
- EEG “Neuro-Feedback” Training [Community Counseling]
- Counseling for ADHD [Douglas Cowan, Psy.D. MFT 661.972.5953]
- Exercise Programs

Resources

The ADHD Information Library at <http://Newideas.net> has over 220 articles for parents and teachers on ADHD.

ADD in School is a website with 500 classroom interventions to help students with ADHD be more successful in the classroom. <http://ADDinSchool.com>

The ADHD Diet eBook can be purchased at <http://ADHDdiet.info>

The eBook "Married to ADHD" can be downloaded from the ADHD Information Library at this URL - http://Newideas.net/ebooks/married_to_adhd_ebook.pdf

A good assortment of School Resources can be found on Pinterest at this URL: <http://www.pinterest.com/flomostayc/homework-and-school-resources/>

A good assortment of ADHD Resources can be found on Pinterest at this URL: <http://www.pinterest.com/pin/35043703325280889/>

The Largest Source of ADHD Information On-Line:

ADHD Information Library

[http:// Newideas.net](http://Newideas.net)