

ADHD and Yoga: By Aarti Arya

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Project Summary

Topic: ADHD & Yoga



As we all are aware of the fact -“Today's Children are Tomorrow's Future”. But the question is how safe and secured is our Children's future in today's busy schedule where family does not have time to spend together. Due to modern lifestyle – wherein there is a very thin line between necessities and luxuries and increasing expenditures, both the parents have to take up jobs, work for long hours by keeping children either at home with their grand-parents or with child minders. Hectic travelling can drain their energy by the end of the day with no enthusiasm left to spend quality time with children when they return home. In addition, Multimedia, harmful gadgets like smart phones, television, video games etc have taken place of parents / human being.

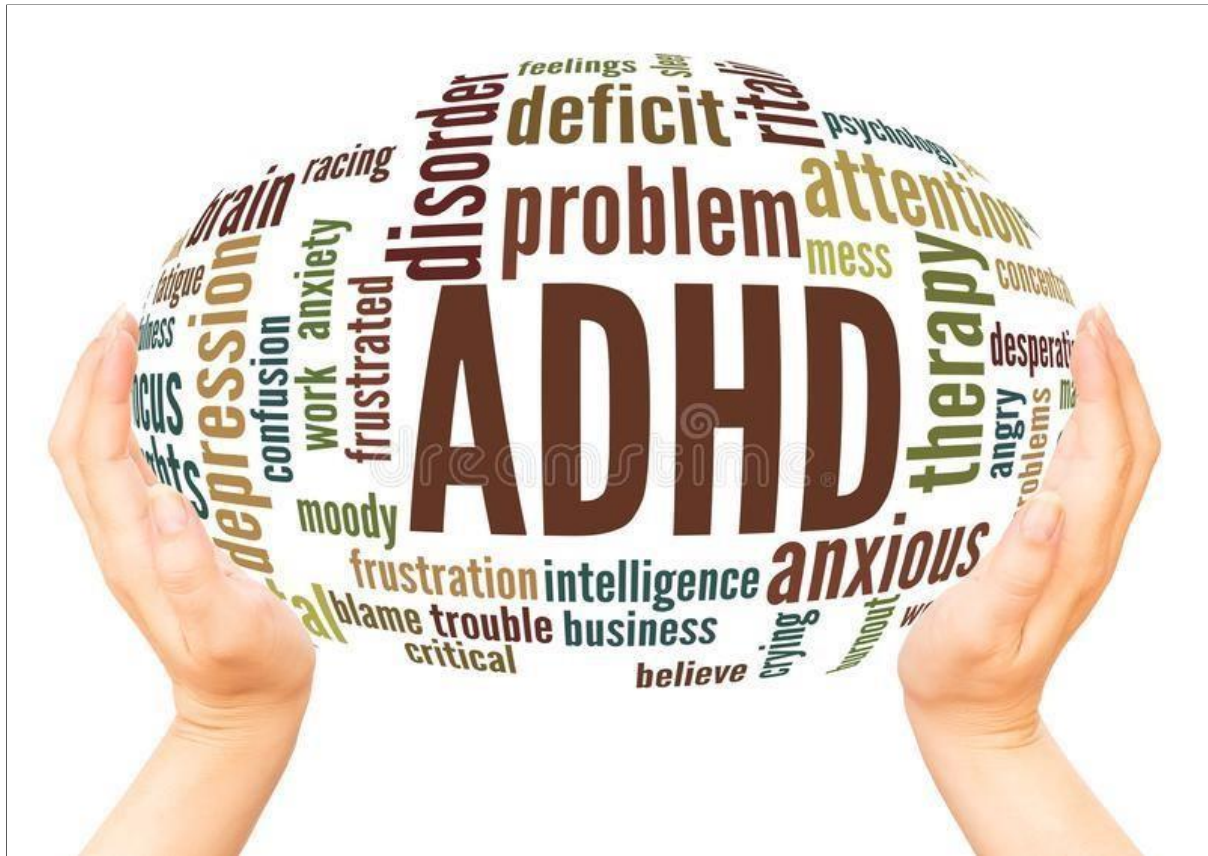
Even if the mother is a home maker, most of the time she is busy with the household chores, taking care of all the family members and children's study etc. Due to this hectic lifestyle of parents, they become more tired, frustrated and violent at times which affects their children's life knowingly or unknowingly. Kids sense - being ignored, becomes more prone to loneliness,

lethargic, eat junk food, hardly take part in any outdoor activity. Most of the time, they are interested and busy playing with their phones, video games or watching tv as they are habituated. At the same time, Parents and grandparents fulfill all demands of children without thinking whether they are valid or not. It can be either with an intention to keep the child happy and a house environment peaceful, but at times, it can be a status quo. Unfortunately, some children take their elders for granted and gets used to with never listening to "NO" for anything and throws tantrums, if denied sometimes.

These all leads to impatience, feeling neglected, not loved, frustration, violence, depression, loneliness and slowly they move towards unexpected behavior at times. This project will throw more light on details of what happens with such children and how do they survive or cope with such situations.

Today I will be introducing a topic of ADHD which is an area of concern for almost every family or a house. This project focuses on – What is ADHD, it's History, Symptoms, Causes, Effects, Types, Diagnosis, Treatments, Co-relation of Yoga and ADHD, Diet, Parenting and other such related topics which will keep holding you till end.

WHAT IS ADHD



Definition: **Attention Deficit Hyperactivity Disorder (ADHD)** is a complex **neurodevelopmental disorder** that can cause above-normal levels of hyperactive and impulsive behaviour. **Attention Deficit Hyperactivity Disorder (ADHD)** is the presence of the behaviours of hyperactivity, impulsivity and poor attention, which are otherwise not appropriate for a person's age. It develops when the **brain and Central Nervous System** suffer **impairments** related to growth and development. Individuals with ADHD can also display problems with regulating emotions. Most commonly diagnosed in childhood, adults also can experience the symptoms of the disorder. This turn into adverse effects in ability to work, do well in academics and maintaining relationships, which degrades the quality of life.

ADHD and Heredity:



Genetic studies are just beginning to identify genes associated with ADHD. In addition to molecular genetic research, the hereditary component of the condition has been supported by various family studies.

For example, one study found that over **25% of relatives** of families with a child with ADHD also had the condition, a much higher rate than in families without a child with ADHD. Also, twin studies have demonstrated that there is an **82%** chance that **identical twins** will both have ADHD if at least one of them has the condition, compared to a **38%** chance among **fraternal twins**.

Finally, children with ADHD who were adopted are more likely to have ADHD present in their biological families than in their adopted families. This confirms that the genetic component is much stronger than any environmental factors. Although the exact cause of ADHD is unknown in the majority of cases. Genetic factors are estimated to make up about 75% of the risk. Nicotine exposure during pregnancy may be an environmental risk. It does not appear to be related to the style of parenting or discipline. It affects about 5–7% of children when diagnosed via the DSM-IV criteria (**Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision**) and 1–2% when diagnosed via the ICD-10 criteria (**ICD-10: Tenth Revision of the International Classification of Diseases and Related Health Problems**), both linked to a **Physiological or Neurological criteria**.

As of **2015**, it is estimated to affect about **51.1 million people globally**. Rates are similar between countries and depend mostly on how it is diagnosed.

History / Health / The role of Eastern and Western Psychology in Modern Era, Mind-Body approaches.

Mind-body interaction in Western thought has evolved through the passage of time. Paracelsus (1493-1541) emphasized on treating the whole being rather than merely the part that often thought to be the cause.

William Cullen (1710-1790), held that excess or an insufficiency of nervous tension was the cause of all disease states.

By the 1840s and 1850s, functional disorders of the nervous system and their emotional causes had become a major area of study.

In 1936, Hans Selye coined the phrase “General Adaptation Syndrome” when stressors like cold and heat were thought responsible to produce a generalized response in biological organisms.

A tradition of self-help on overt and positive rather than covert and negative feelings began in the late nineteenth century and remained strong in the 1950s and 1960s.

Halbert Dunn (1961) published “High Level Wellness” when Wellness comes to prevail as a new concept of Health. Wellness then came to be considered as a healthy balance of mind-body-spirit complex resulting into an overall feeling of well-being.

By 1971, it started becoming increasingly clear that the stresses of modern life, home life and professional life adversely affect one’s health.

George L Engel (1913-1999), first proposed the biopsychosocial model of health and wellness.

Even as medical technology has advanced off late, there has been an increased appreciation of the positive mind-body connection in managing both functional and chronic disorders.

Eastern thought has always subscribed to mind-body relationship both in pre-Patanjali and post-Patanjali periods that have their roots in Vedic periods. Ayurveda, also known as up-Veda, reflects the mind-body interaction in Charaka Samhita: **“Shariramhyapisattwamanuvidhiyatensattwanchashariram”**

i.e. a particular type of body goes with a particular mind and conversely, a particular type of mind with a particular type of mind.

STATISTICS

There is silent tragedy in our homes, and concerns our most precious jewels: our children. Our children are in a devastating emotional state! In the last 15 years, researchers have given us increasingly alarming statistics on a sharp and steady increase in childhood mental illness that is now reaching epidemic proportions:

ADHD is said to affect roughly 2.5% of adults and about 5% of children **worldwide**.

ADHD is estimated to touch about 6–7% of people aged **18** and under when diagnosed via the DSM-IV criteria. When diagnosed via the ICD-10 criteria, rates in this age group are estimated at 1–2%. Children in **North America** appear to have a higher rate of ADHD than children in **Africa** and the **Middle East**; this is believed to be due to differing methods of diagnosis rather than a difference in underlying frequency.

In **India**, a study had found that the prevalence of ADHD amongst primary school children was approx. **11.32%**. Frequency was found to be higher among the males (66.7%) as compared to that of females (33.3%). The prevalence among lower socio-economic group was found to be 16.33% and that among middle socio-economic group was 6.84%. It was found to be highest between the age group of **9 and 10 years**.

As stigma surrounding mental health in India is widespread, addressing and recognising disorders such as **ADHD** early in childhood can help ensure proper and timely treatment.

A study, published in the journal “**Nature Genetics**”, claims to have found genetic variants that increase the risk of **Attention-Deficit/Hyperactivity Disorder (ADHD)** which can help in understanding the biological mechanisms that lead to the disorder as well as development of medicines.

Among all the causes that can lead to **ADHD**, genetic factors account for 70% to 80%, as per **Professor Anders Borglum**, co-author of the research from **Aarhus University, Denmark**.

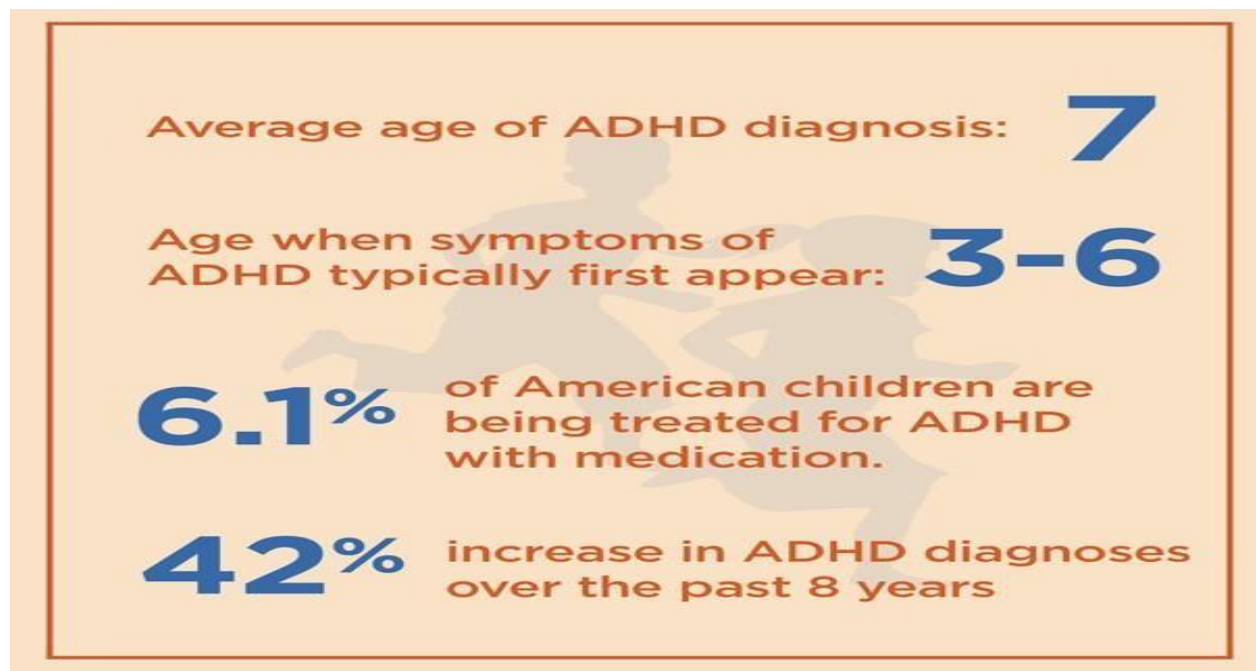
The team scanned the genomes of over 55,000 individuals, out of which over 20,000 people were diagnosed with ADHD, and identified 12 regions in the genome, changes to which increase the risk of ADHD. The study maintains that

the pattern of genetic variants found in those with ADHD was similar to the one seen in people with other mental health conditions. It further says that **ADHD is an “Extreme Expression of Continuous Heritable Traits”**.

Research based Report:

According to a 2015 National Health Statistics Report issued by the **U.S.DepartmentofHealthandHumanServices**, parents reported a total of **6.4 million** school age children between ages **4** and **17** having ever been diagnosed with ADHD. This worked out to be **11%** of children or roughly **1 in 10** kids.

ADHD by the Numbers: Facts & Statistics



Studies in India (from Ms. Issac of Cathedral School) shows that,

- 1 in 5 children have mental health problems.
- A 43% increase in ADHD has been noted.
- A 37% increase in adolescent depression has been noted.
- There has been a 200% increase in the suicide rate in children aged 10 & 14.

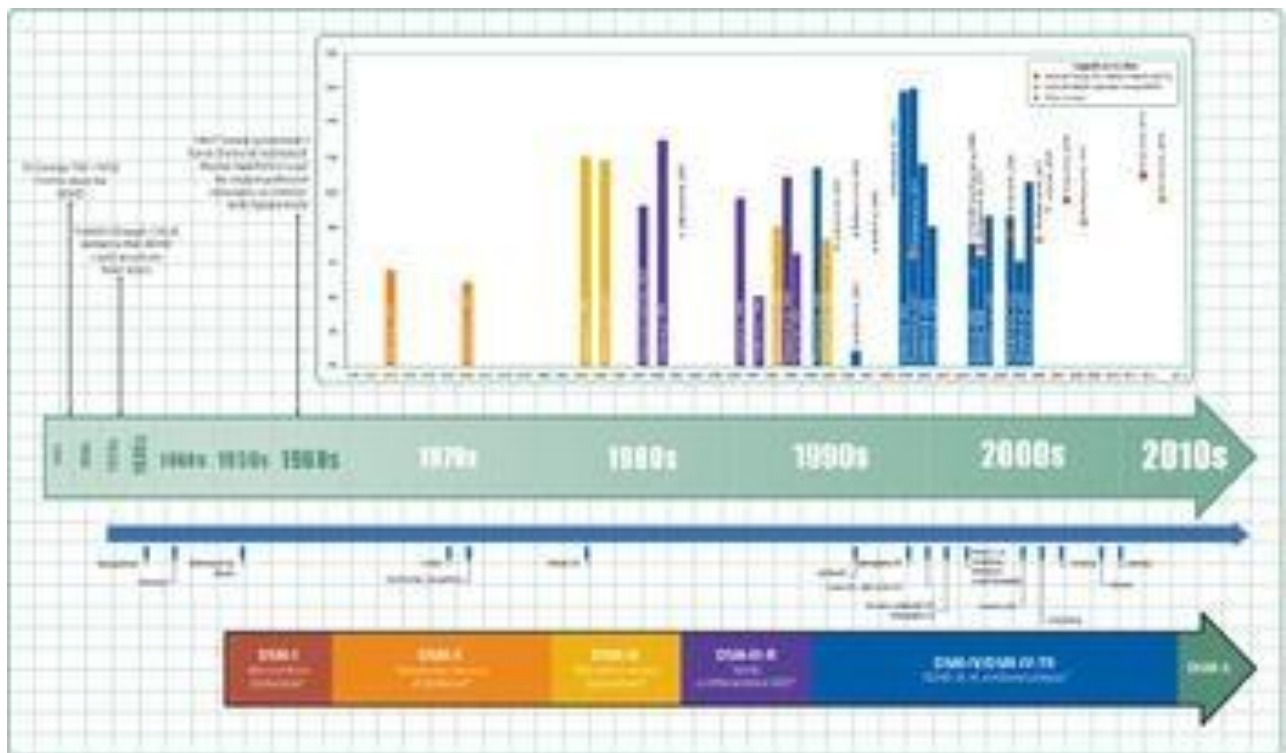
Thinner brain tissue

Researchers with the **National Institute of Mental Health (NAMI)** identified an area of the brain that ADHD may affect. In particular, the scientists found that individuals with ADHD have thinner tissue in the areas of the brain associated with attention. Fortunately, the study also found that some children with the thinner brain tissue develops normal levels of tissue thickness as they get older. As the tissue becomes thicker, the symptoms of ADHD become less severe.

At least 30% of children with a **traumatic brain injury** later develop ADHD and about 5% of cases are due to **brain damage**.

Journey of ADHD:

Timeline of ADHD Diagnostic Criteria, Prevalence, and Treatment



Early 1900s:

The first clear description of ADHD is credited to British Paediatrician Sir **George Still** in **1902** during a series of lectures he gave to the Royal College of Physicians of London. He described ADHD as “**an abnormal defect of moral**

control in children.” He found that some affected children could not control their behaviour the way a typical child would, but they were still intelligent. He noted both nature and nurture could be influencing this disorder.

Alfred Tredgold proposed an association between brain damage and behavioral or learning problems which was able to be validated by the encephalitis lethargica epidemic from 1917 through **1928**.

The APA (**American Psychiatric Association**) issued the first “**Diagnostic and Statistical Manual of Mental Disorders**” (**DSM**) in **1952**. This manual listed all of the recognized mental disorders as “**Minimal Brain Dysfunction**”. It also included known causes, risk factors, and treatments for each condition. Doctors still use an updated version today.

The APA released a third edition of the DSM (**DSM-III**) in **1980**. They changed the name of the disorder from “Hyperkinetic Impulse Disorder” to “**Attention Deficit Disorder**” (**ADD**). This listing created two subtypes of ADD: “**ADD with Hyperactivity, and ADD Without Hyperactivity**”.

The APA released a *revised version of the DSM-III in 1987*. They removed the “**Hyperactivity Dysfunction**” and changed the name to “**Attention Deficit Hyperactivity Disorder**” (**ADHD**). combined the three symptoms inattentiveness, impulsivity, and hyperactivity.

The term **ADHD became official in May 2013**, when the APA released the **Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)**. This manual is what doctors refer to when making diagnoses for mental health conditions.

Controversy:

ADHD, its diagnosis, and its treatment have been controversial since the 1970s. The controversies involve clinicians, teachers, policymakers, parents and the media. Positions range from the view that ADHD is within the normal range of behavior to the hypothesis that ADHD is a genetic condition. Other areas of controversy include the use of stimulant medications in children, the method of diagnosis, and the possibility of overdiagnosis.

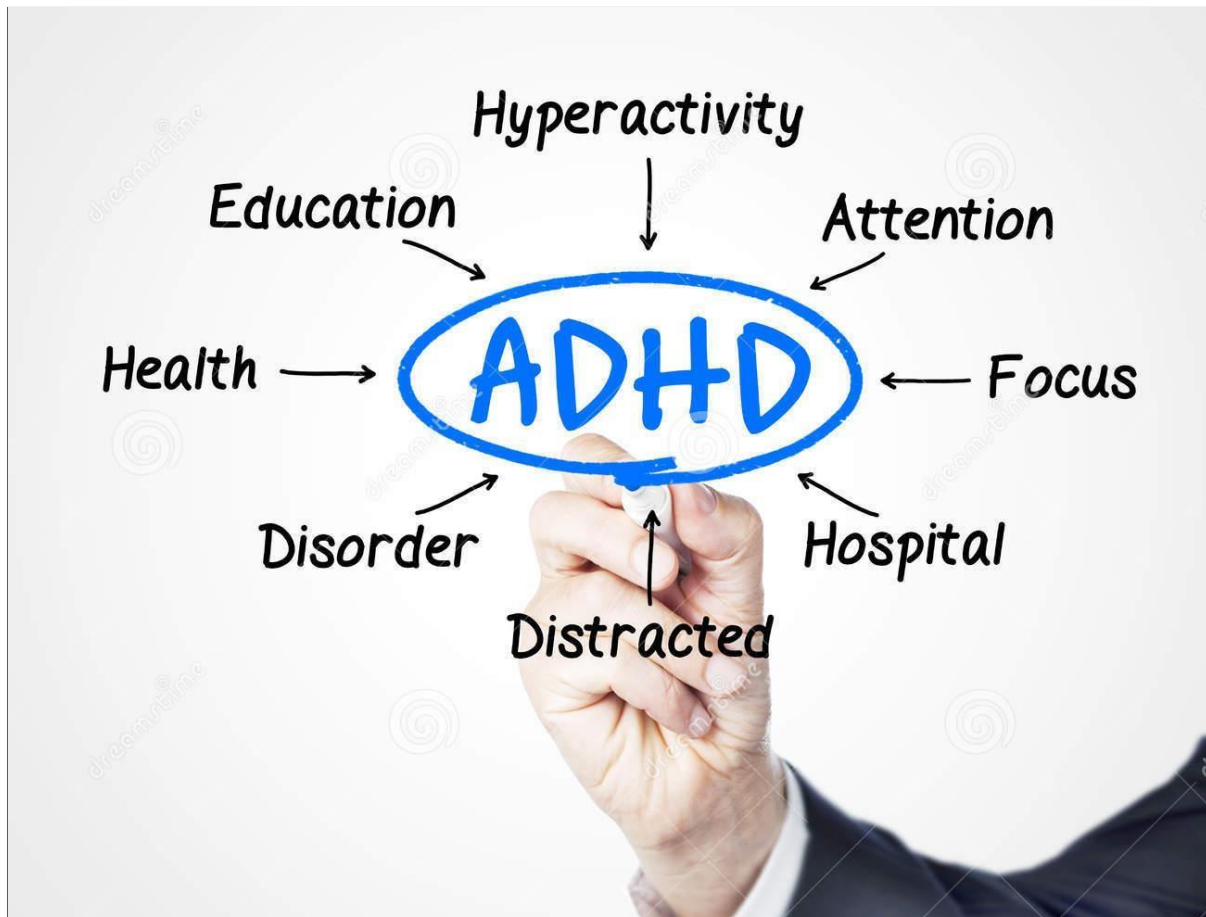
In 2009, the [National Institute for Health and Care Excellence](#), while acknowledging the controversy, states that the current treatments and methods of diagnosis are based on the dominant view of the academic literature.

In 2014, [Keith Connors](#), one of the early advocates for recognition of the disorder, spoke out against over diagnosis in [The New York Times](#) article. In contrast, a 2014 peer-reviewed medical literature review indicated that ADHD is underdiagnosed in adults.

With widely differing rates of diagnosis across countries, states within countries, races, and ethnicities, some suspect factors other than the presence of the symptoms of ADHD are playing a role in diagnosis. Some sociologists consider ADHD to be an example of the [medicalization](#) of deviant behavior, that is, the turning of the previously non-medical issue of school performance into a medical one. Most healthcare providers accept ADHD as a genuine disorder, at least in the small number of people with severe symptoms. Among healthcare providers, the debate mainly centers on diagnosis and treatment in the much greater number of people with mild symptoms.



Causes&Effectsof ADHD



The root cause and the best solution for these troubling behaviours will vary from child to child.

Despite how common ADHD is, the exact cause of it is unclear. It's believed to have **neurological origins**, but research shows that even **genetics** plays a major role. Other factors, such as **environmental toxicity** and **poor nutrition during infancy**, have also been implicated. Studies shows that people with **Down syndrome** are more likely to have ADHD.

Thomas Brown, Ph.D., Director of the Brown Clinic In his book – “**A New Understanding of ADHD in Children and Adults: Executive Function Impairments**”, explains – in a person with ADHD, the brain communicates messages through neurons in the brain. But at the end of every neuron there is a gap called a ‘**synapse**’. This gap can be filled with the aid of a chemical called a “**neurotransmitter**”, produced by the body. Persons with ADHD tend not to

release enough of these essential chemicals or to release and reload them too quickly before an adequate connection has been made.

When ADHD causes challenges in a family, a classroom, or a workplace, people can become **quick to lose sight of the facts** and they may experience **poor self-image** as they struggle to master tasks at home and school. They are also at risk for **accident and injury** due to inattention and impulsivity.

In Adults, person might feel **lack of confidence, unorganized**, they **need reminders to complete tasks, short-tempered, forgetful, less adjustive, jealous, frustrated, lethargic, impulsive in relationship**, having **issues in married life**, Spouses might see their partner as **unconcerned about their own needs or emotions, family issues, divorce, suicide attempt** etc.



One long-term study showed that ADHD persists into adulthood for about 30% who are diagnosed with it as kids. The study also showed that people diagnosed with ADHD as a child had an increased risk for **anxiety, depression, substance abuse, antisocial personality disorder, behaviour disorders, learning disorders, psychological reactions to major life events (i.e. moving, death**

in the family), and other medical conditions can present as ADHD symptoms including **attempt to suicide**.

The [Centres for Disease Control and Prevention \(CDC\)](#) estimates that up to 30% of children with ADHD also have an anxiety disorder, and a review of the current research shows association between ADHD and anxiety reaching 25% in many trials.

A **2016** systematic review found a well-established association between ADHD and - **obesity, asthma and sleep disorders**, and tentative evidence for association with **celiac disease and migraine**.



Types of ADHD



To make ADHD diagnoses more consistent, based on a set number of criteria; **NIMH** ([TheNationalInstituteofMentalHealth](#)) and **APA** ([AmericanPsychiatricAssociation](#)) classifies the disorder into three sub-types:

Predominantly Inattentive:

As the name suggests, people with this type of ADHD usually face extreme difficulty in focusing and they frequently switch from one activity to another. This type is most common among girls with ADHD.

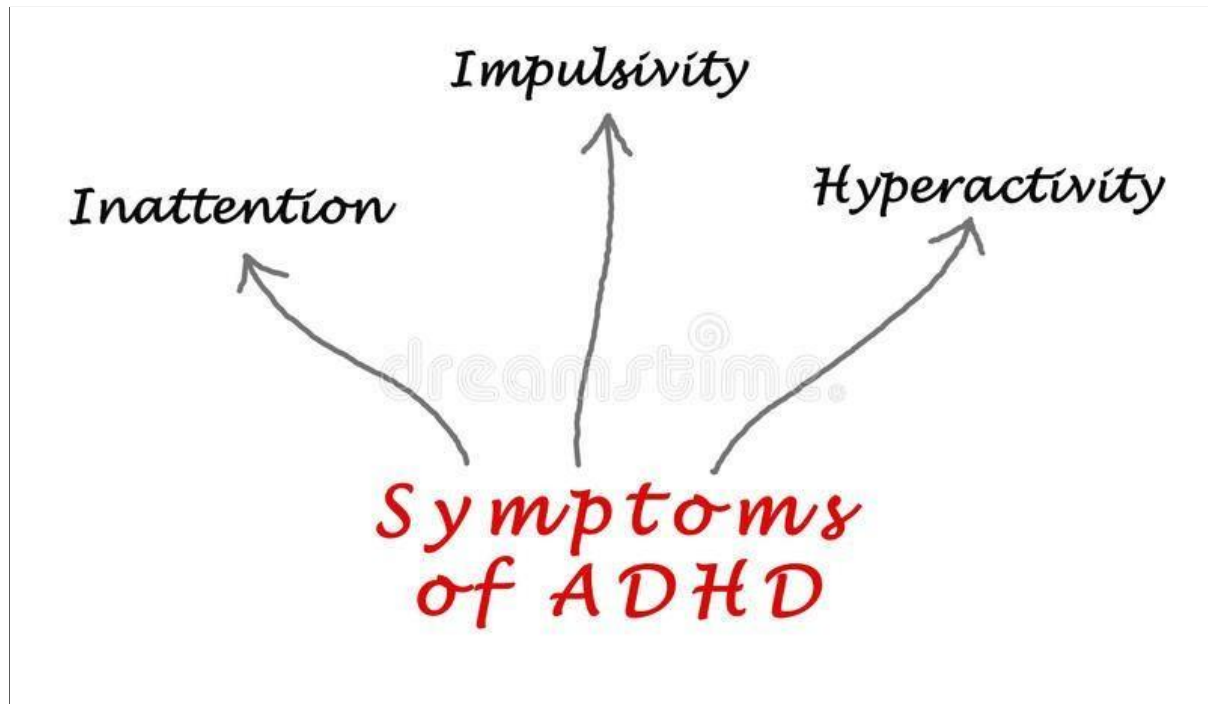
Predominantly Hyperactive-Impulsive type:

People with this type of ADHD show primarily hyperactive and impulsive behaviour. They are constantly in motion and impatient.

Combined hyperactive-impulsive and inattentive type:

ADHD, combined type is a combination of the first two subtypes. This is the most common type of ADHD. This subdivision is based on presence of at least six out of nine long-term symptoms (lasting at least for six months).

Symptoms of ADHD



According to the [Centres for Disease Control and Prevention](#), **Symptoms** have been detected in children as young as **3**, and they typically start before the age of **12** (and are present for more than six months), with the average age of diagnosis being **7 years old**. The symptoms can be **mild, moderate or severe**. The condition may also be evident differently depending on the individual and can cause problems in at least two settings (such as school, home, or recreational activities). The signs are inappropriate for a child of that age. [One in 10](#) children between ages **5 to 17 years** receives an ADHD diagnosis, making this, one of the most common childhood **Neurodevelopmental disorder**.

In **adults**, **inner restlessness** rather than hyperactivity may occur. They often develop coping skills which make up for some or all of their impairments. The condition can be difficult to tell apart from other conditions, as well as to distinguish from high levels of activity that are still within the range of normative behaviors.

SIGNS AND SYMPTOMS

A person with ADHD will show varying degrees of these three behaviours; depending on the category of, type of ADHD they fall into and the duration of the condition:

Inattention:

- an inability to pay attention
- wandering off task, difficulty sustaining focus, lacking persistence, and disorganized.
- missing details and becoming distracted easily.
- becoming bored quickly.
- difficulty learning or organizing new information.
- becoming confused easily or daydreaming frequently.
- seeming not to listen when spoken to directly.
- difficulty following instructions / directions.
- difficulty with academic achievements – like - completing tasks that are tedious or time-consuming
- processing information more slowly and with more mistakes than peers.
- need many reminders to do things accomplish

Hyperactivity:

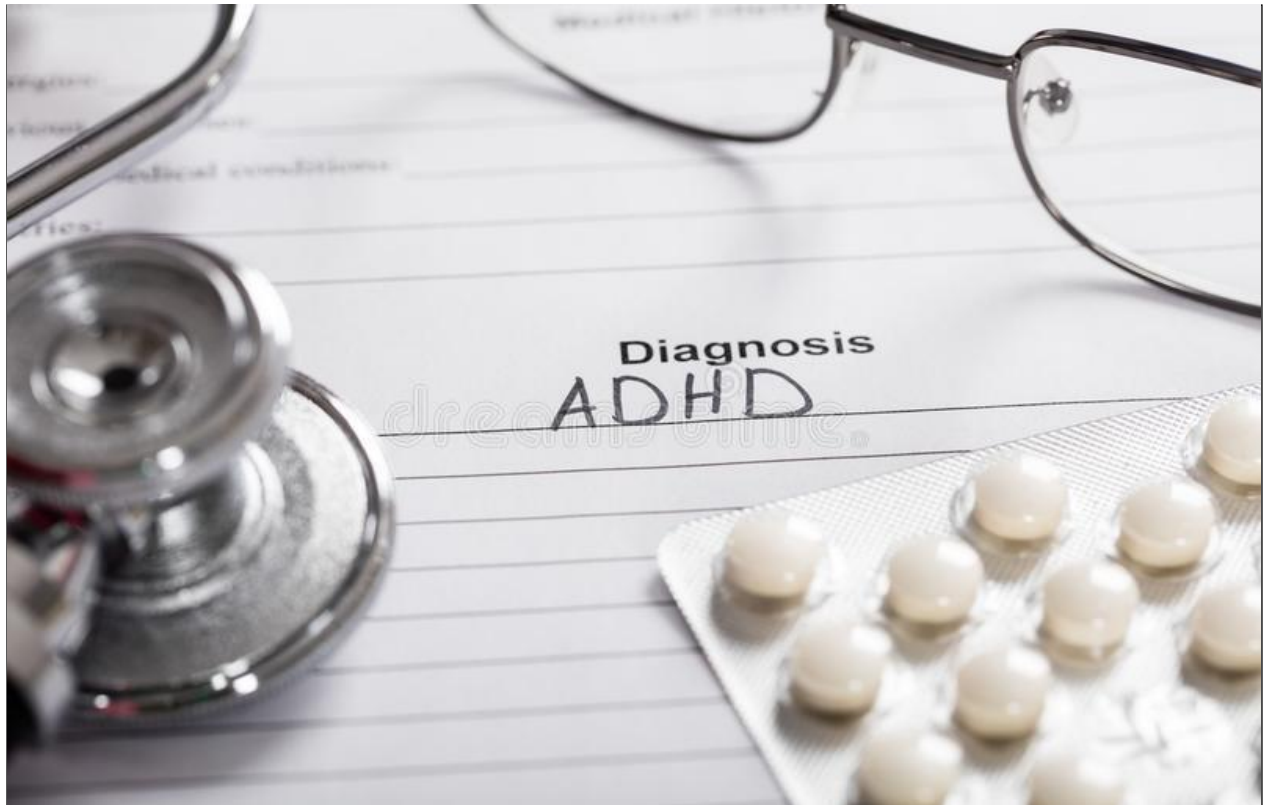
- excessive motor activity, excessive fidgeting, tapping, or talking.
- climb, jump, or roughhouse when it's time to play quietly.
- impatience/ attention seeker.
- make careless mistakes.
- interrupts or intrudes on conversations.

- do things without thinking (i.e. takes risks with little thought for the dangers).
- do things they shouldn't, even though they know better.
- have trouble waiting, taking turns, or sharing.
- have emotional outbursts, lose their temper, or lack self-control.

Impulsivity:

- immature or destructive behavior(hasty actions that occur in the moment without thinking). These actions have the potential for danger.
- sensation-seeking behavior and short-tempered.
- they conduct above-normal levels of activity and are over- energetic.
- hyper-focus.
- verbal aggression, such as teasing, taunting, or name-calling
- addictive deeds such as substance abuse and gambling are common.





Diagnosis of ADHD

ADHD is often diagnosed in childhood, and typically continues through adolescence and into adulthood. The level of impairment can vary from person to person and from one situation to another; symptoms can lessen or increase over the period of time.

Questioning parents or guardians and teachers, as to how the person behaved and developed as a child may form part of the assessment. A family history of ADHD also adds weight to a diagnosis.

However, symptoms of ADHD, such as low mood and poor self-image, mood swings, and irritability, can be confused with [dysthymia](#), [cyclothymia](#) or [bipolar disorder](#) as well as with [borderline personality disorder](#). Some symptoms that are due to anxiety disorders, antisocial personality disorder, developmental disabilities or mental retardation or the effects of substance abuse such as intoxication and withdrawal can overlap with some ADHD. These disorders can also sometimes occur along with ADHD.

Medical conditions which can cause ADHD type symptoms include: [hyperthyroidism](#), [seizure disorder](#), [lead toxicity](#), [hearing deficits](#), [hepatic disease](#), [sleep apnea](#), [drug interactions](#), untreated [celiac disease](#), and [head injury](#).

Primary sleep disorders may affect attention and behavior and the symptoms of ADHD may affect sleep. It is thus recommended that children with ADHD be regularly assessed for sleep problems. Sleepiness in children may result in symptoms ranging from the classic ones of yawning and rubbing the eyes, to hyperactivity and inattentiveness. [Obstructive sleep apnea](#) can also cause ADHD type symptoms. Rare tumors called [pheochromocytomas](#) and [paragangliomas](#) may cause similar symptoms to ADHD.

If one of these related conditions is also diagnosed, the doctor can recommend a number of treatments option that similar to ADHD, will include medication and therapy.

But it's still important to keep in mind that many people with ADHD enjoy fulfilling and successful lives. Some even tout the benefits of the condition.

Additional Risk Factors and Associated Disorders of ADHD



- Environmental exposure, such as exposure to pesticides and lead or polychlorinated biphenyls, Exposure to the organophosphate insecticides chlorpyrifos and diallyl phosphate may develop problems which resemble ADHD.
- The study found that mothers who smoke (can cause problems with [Central Nervous System Development](#)) or drink alcohol (can cause [Fetal Alcohol Spectrum Disorders](#)) and use drugs like acetaminophen during pregnancy for long term, are more likely to have ADHD when the child gets older.
- Some studies suggest that in a small number of children, artificial [food dyes](#) or [preservatives](#) may be associated with an increased prevalence of ADHD or ADHD-like symptoms, but the evidence is weak and may only apply to children with food sensitivities. In a minority of children, intolerances or allergies to certain foods may worsen ADHD symptoms.

Some commonly associated Behavioural and Emotional conditions include:

- **Epilepsy:** It is a disorder in which nerve cells activity in the brain is disturbed, causing seizures. Epilepsy may occur as a result of a genetic disorder or an acquired brain injury, such as a trauma or stroke. The ratio of Epilepsy cases associated with ADHD is roughly **4 in 10 Kids** and **1 in 5 Adults**.
- **Tourette's Syndrome (TS):** It's a Neurodevelopmental disorder characterized by multiple chronic motor and vocal tics beginning in childhood. **10%** of ADHD have Tourette's syndrome.
- **Autism Spectrum Disorder (ASD):** This disorder affects social skills, ability to communicate, behavior and interests.

Researchers at **The New York University (NYU)- School of Medicine** have found a consistent connection between structural abnormalities in the brain's white matter with the severity of symptoms in people with autism. **The American Psychiatric Association** estimates that 1 in 10 children have ADHD and according to the **Centres for Disease Control and Prevention (CDC)**, **1 in 68** children has some degree of ASD.

- **Anxiety Disorders (AD):** It has been found to occur more commonly in the ADHD population. Hair twirling, skin picking, or other anxious behaviours are some of the basic symptoms. Many children diagnosed with ADHD struggle with **working memory, time-management skills, and organizational skills**. This can make it difficult to follow daily routines and complete short- and long-term tasks. It can also result in chronic stress.
- **Poor Peer Relationships (PPR):** A child with social anxiety will struggle to make and maintain friendships due to fears about rejection or difficulty regulating emotional thoughts while engaged with peers.

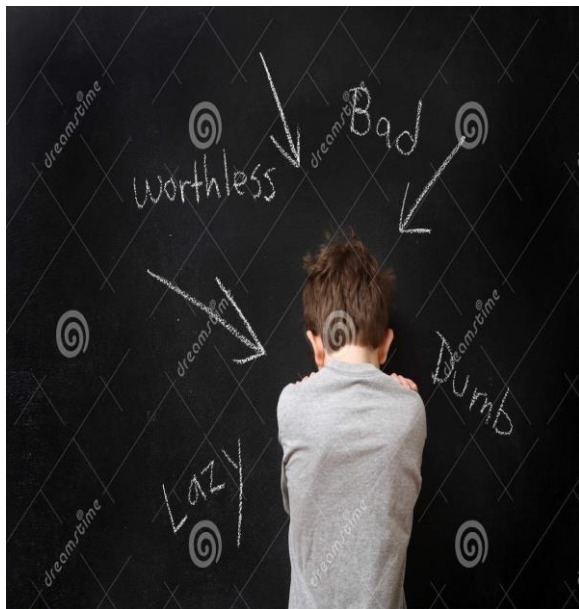
A child with ADHD is likely to have low impulse control and poor social skills, which makes it difficult to sustain friendships.

- **Stress:** Some of the symptoms of ADHD, such as **frequent interrupting, blurting out, fidgeting, and forgetfulness**, can be very intrusive and increase stress levels for children. If children are consistently reprimanded for talking out of turn in school, for example, they are likely to experience higher stress and low self-esteem.

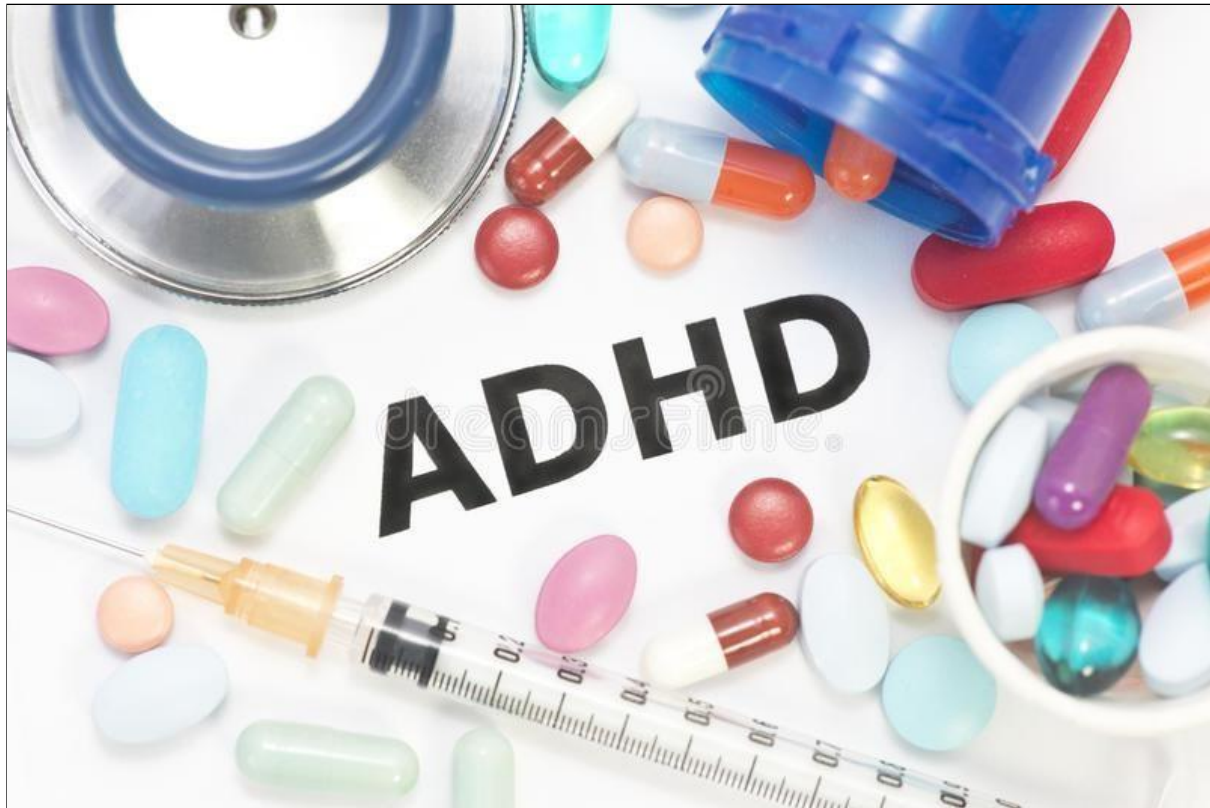
- **Intermittent Explosive Disorder (IED):** Difficulty regulating emotions and coping with anxious thoughts can manifest in different ways for different kids. While some kids might completely check out and turn their anxious thoughts inward, others are likely to act out with negative behaviours. Tuning into your child's baseline behaviours will help you assess for co-existing anxiety when notice a **shift in behaviours**.
- **Learning Disabilities (LD):** It have been found to occur in about 20–30% of children with ADHD. Learning disabilities can include **developmental speech and language disorders and academic skills disorders**. ADHD, however, is not considered a learning disability, but it very frequently causes academic difficulties.
- **Obsessive–Compulsive Disorder (OCD):** can co-occur with ADHD and shares many of its characteristics.
- **Intellectual Disabilities (ID):** The main symptom is - difficulty in thinking and understanding. Life skills impacts include – conceptual, social and practical skills.
- **Reactive Attachment Disorder (RAD):** mostly found in child before the age of 5, who feels neglected, detached, holds back his/her emotions etc.
- **Substance Abuse Disorders (SAD):** Adolescents and adults with ADHD are at increased risk of **substance abuse**. This is most commonly seen with **alcohol** or **cannabis**. The reason for this may be an altered reward pathway in the brains of ADHD individuals. This makes the evaluation and treatment of ADHD more difficult, with serious substance misuse problems usually treated first due to their greater risks.
- **Sleep Disorders (SD):** SD and ADHD commonly co-exist. They can also occur as a side effect of medications used to treat ADHD. In children with ADHD, **Insomnia** is the most common sleep disorder with **Behavioral therapy**, the most preferred treatment. Problems with sleep initiation are common among individuals with ADHD but later, often they will be deep sleepers and have significant difficulty getting up in the morning. **Melatonin** is sometimes used in children who have **Sleep Onset Insomnia**.
- **Oppositional Defiant Disorder (ODD)** and **Conduct Disorder (CD):** which occur with ADHD in about **50%** and **20%** of cases respectively. They are

characterized by antisocial behaviors such as **stubbornness, aggression, frequent temper tantrums, fighting, deceitfulness, lying, and stealing**. About half of those with hyperactivity and ODD or CD develop **Antisocial Personality Disorder** in adulthood. Brain imaging supports that conduct disorder and ADHD are separate conditions.

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- Primary disorder of **Vigilance**: which is characterized by poor attention and concentration, as well as difficulties staying awake. These children tend to fidget, yawn and stretch and appear to be hyperactive in order to remain alert and active.
-
- **Sluggish Cognitive Tempo (SCT)**: is a cluster of symptoms that potentially comprises another attention disorder. It may occur in **30–50%** of ADHD cases, regardless of the subtype.
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- **Stereotypic Movement Disorder (SMD)**: It's a Movement disorder in which there is either an excessive movement or a paucity of voluntary and automatic movements, unrelated to weakness or spasticity.
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- **Mood Disorders (MD)** (especially **Bipolar Disorder** and **Major Depressive Disorder**): Boys diagnosed with the combined ADHD subtype are more likely to have a mood disorder. Adults with ADHD sometimes also have bipolar disorder, which requires careful assessment to accurately diagnose and treat both conditions.
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- **Restless Legs Syndrome (RLS)**: has been found to be more common in those with ADHD and is often due to **Iron Deficiency Anemia**. However, restless legs can simply be a part of ADHD and requires careful assessment to differentiate between the two disorders.
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- People with ADHD have an increased risk of **persistent bed wetting**.
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- **Depression**: If one has ADHD, he/she is more likely to have depression as well. In fact, the rate of major depression in children with ADHD is more
- than **five times higher** than in children without ADHD. Up to **31 percent** of adults with ADHD have been found to have depression also.



Introduction of Medications and Treatments



When a child is diagnosed with **Attention Deficit Hyperactivity Disorder (ADHD)**, parents are faced with the decision of whether to treat the disorder with medication. Parents often worry that medication will change their child's personality or become habit-forming, or they might feel overwhelmed by the number of different medications on the market. Medication cannot cure ADHD completely, but it can help manage and reduce symptoms and improve overall functioning at home and school. It can help decrease ADHD symptoms in children and adults both. The two main **types of medications** used to treat ADHD are **stimulants and nonstimulants**.

Researchers have found that **Central Nervous System (CNS) Stimulants**, such as **Ritalin** and **Adderall**, are the most commonly prescribed medications to

treat inattentive type ADHD, and are quite effective. Both of these stimulants have been in use for decades. Examples of **Stimulant** drugs include:

1. **Amphetamines:** Amphetamines are stimulants used for ADHD. They include amphetamine, dextroamphetamine, or lisdexamfetamine (Vyvanse). Brand names of these drugs include:

- Adderall XR (generic available)
- Dexedrine (generic available)
- Dyanavel XR
- Evekeo
- ProCentra (generic available)
- Vyvanse

ADHD medications like Ritalin were originally designed to only last a few hours. Now some stimulants like Concerta come in an ascending dose, with compartments within the medication that release at different times after swallowing. These extended release versions can last for up to 12 hours. Sometimes capsules may be hard for young children to swallow, so other brands offer the medication in bead form. Parents can open the capsule and sprinkle it into food for the child to easily ingest. Daytrana is the only ADHD medication that comes in a transdermal patch, which can be stuck to the hip for quick absorption.

Ritalin: The FDA approved the *psychostimulant Ritalin (methylphenidate) in 1955*. It became more popular as an ADHD treatment as the disorder became better understood and diagnoses increased. The medicine is still used to treat ADHD today. These medications include *Atomoxetine (Strattera)* and some antidepressants such as *Bupropion (Wellbutrin)*.

Benzedrine: The U.S. Food and Drug Administration (FDA) approved *Benzedrine* as a *medicine* in 1936. The use of this stimulant to treat ADHD was first prescribed in 1937 by *Dr. Charles Bradley*. He had found improved academic performance and behavior.

2. **Methamphetamine (Desoxyn):** Methamphetamine is related to ephedrine and amphetamine. It also works by stimulating the Central Nervous System (CNS). It's not known exactly how this drug works to help ADHD symptoms. It can reduce the appetite and increase the blood pressure. This drug comes as an oral tablet taken once or twice per day or as recommended by the Doctor.
3. **Methylphenidate:** Methylphenidate works by helping the reuptake of norepinephrine **and** dopamine in brain. It's also a **mild stimulant**. It comes as immediate-release, extended-release, and controlled-release oral forms. It also comes as a transdermal patch under the brand name Daytrana. Brand names include:
- Aptensio XR
 - Metadate ER
 - Concerta (generic available)
 - Daytrana
 - Ritalin (generic available)
 - Ritalin LA (generic available)
 - Methylin (generic available)
 - QuilliChew
 - Quillivant
 - Focalin (generic available)

Non-stimulants: If stimulants don't work well for an adult or a child, or if they cause troublesome side effects, a doctor can suggest a non-stimulant medication either by its own or with a Behaviour Therapy or jointly with stimulants to treat the symptoms. Non-stimulants touch the brain differently than stimulants do. Sometimes they are prescribed though they have not been approved by the FDA to treat ADHD, sometimes antidepressants are prescribed "off-label" by doctors to treat ADHD symptoms.

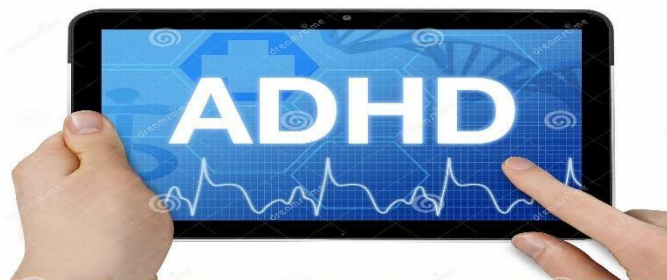
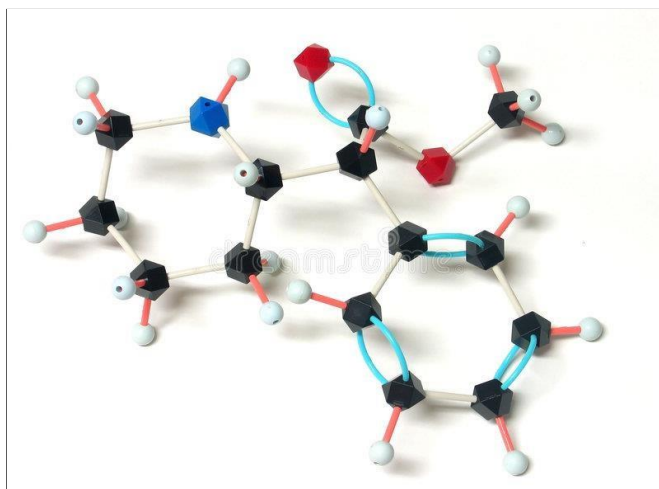
1. **Atomoxetine (Strattera):** Atomoxetine (Strattera) a non-stimulant that helps increase a brain chemical called norepinephrine which work longer in the brain. This chemical can aid to improve focus, while tamping down

impulsiveness and hyperactivity. As the drug is long-acting, the dosage prescribed generally is once per day. This drug is available as a generic.

2. **Clonidine (Kapvay):** Clonidine (Kapvay) is used **to reduce hyperactivity, impulsiveness, and distractibility** in people with ADHD. This drug is also used to treat **high blood pressure**. Because it also lowers blood pressure, people taking it for ADHD may feel light headed. This drug is also available as a generic.
3. **Guanfacine (Intuniv):** It is **normally** prescribed **for high blood pressure in adults**. This drug is available as a generic, but only the time release version and its generics are approved for use in children with ADHD. This drug may **help with memory and behavioural problems**. It may also help **improve aggression and hyperactivity**.

ADHD medications can have many benefits, as well as side effects, hence, some useful natural remedies are also recommended.

Ritalin



Side Effects of Medicines



ADHD drugs can help improve symptoms by enhancing and balancing neurotransmitters. **Neurotransmitters** are chemicals that carry signals between neurons in the brain and body.

If an individual suffering from ADHD follows the medications and therapy prescribed to him/her, there is very little chance of the symptoms worsening. However, the patients must remain on the medications for the rest of their life to avoid relapsing, which is not only very expensive but also has many lateral bad properties of these drugs.

While the stimulants, such as an Amphetamine or Adderall, and non- stimulants, such as Atomoxetine (Strattera) or Bupropion (Wellbutrin), are most commonly used medications to treat ADHD, they can also cause some serious potential side effects.

Though stimulants are classified as habit-forming drugs, some research suggests that taking a stimulant to treat ADHD can actually reduce the risk of substance abuse in adolescence rather than increase it. However, children and teens are still at risk for abusing or selling their medication. Children and teens who do abuse the drug typically take it in higher doses or snort or inject the drug to achieve a quick and powerful high. To avoid these risks, keep the medication in a safe place, monitor the administration of the medication, and advise school personnel do the same. Stimulants can sometimes even increase anxiety or agitation.

While Non-stimulants usually take several weeks before the drug reaches its full effect, it is also important to talk to child's doctor before he/she discontinue use; as a child can experience withdrawal symptoms.

The [Centres for Disease Control and Prevention](#) (CDC) estimates that between 70 and 80 percent of children with ADHD who take medications, respond well to treatment. However, some general possible side effects of these drugs include:

- facial or vocal tics
- sleep problems
- loss of or decreased appetite
- weight loss
- dry mouth
- headaches
- stomach-ache
- mood swings with irritability
- slow or delayed growth (for the first two years of treatment).
- heart problems
- suicidal thoughts or actions (due to antidepressants)

Not many studies have looked at the long-term effects of these medications. But some research has raised red flags. An [Australian study published in](#)

2010 found no significant improvement in behaviour and attention problems in children between the ages of 5 and 14 years old who took medications for their ADHD. Their self-perception and social functioning didn't improve either. Instead, the medicated group tended to have higher levels of **diastolic blood pressure**. They also had slightly lower self-esteem than the non-medicated group and performed below average level.

Production of the medications used to treat **Attention Deficit Hyperactivity Disorder (ADHD)** has skyrocketed in recent decades. **The Centres for Disease Control and Prevention (CDC)** say that ADHD diagnoses in children **increased by about 41 percent** between 2003 and 2011. It was estimated that **11 percent of children** between the ages of 4 and 17 years old had been diagnosed with ADHD, as of 2011. That is **6.4 million** children in total.

Research has shown that with behaviour therapy, some kids can work their way up to lesser doses of the medication. The necessity for treatment and the type of interventions may change as the child grows and changes. Some children may successfully discontinue medication therapy in their teens or adult years, whereas others may benefit from continued medical treatment.

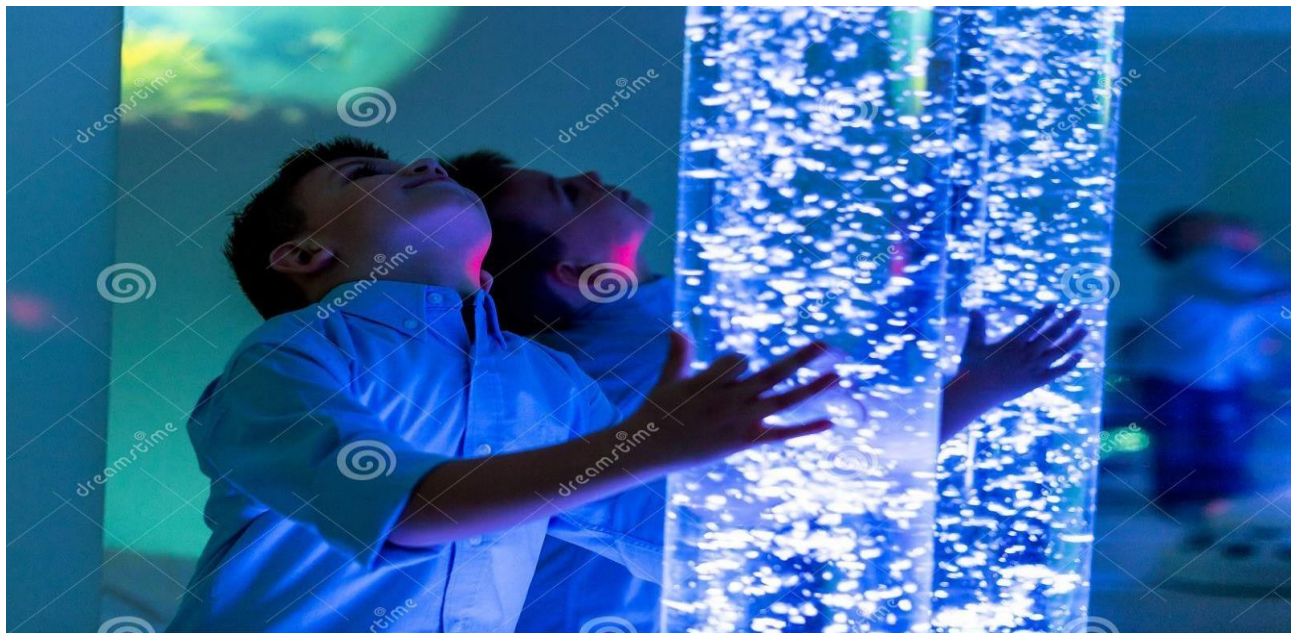
If one is not comfortable with treating this disorder with drugs, there are other, more natural options like elimination diet, supplementing the food with omega 3s, training the memory of the one afflicted, neurofeedback, and parental training. However, there is some debate as to whether these procedures are as effective as medication and therapy.

Vision disorder



Alternate Treatment Options for ADHD

Child in therapy sensory stimulating room, snoezelen. Child interacting with colored lights bubble tube lamp during therapy. Disorder - focus.



Treatment for ADHD typically includes medication to help reduce symptoms, and Cognitive Behavioural Therapy which teaches coping skills for day-to-day challenges; and other such complimentary therapies including Yoga. Seeing a Therapist or Counsellor may also be helpful if an adult or a child experiences emotional difficulty because of inattention issues.

TheNationalInstituteofMentalHealth says Treatment for ADHD can include behavioural therapies or medications or both, for desired outcomes.

Types of therapy includes **Psychotherapy** or **Talktherapy**. With talk therapy, a parent or a child can discuss how ADHD affects one's life and ways to help to manage it.

Treatment decisions for children with ADHD can be complex. Thus, parents, healthcare professionals, psychologists, teachers, and school officials should work together to determine the best treatment option for the child. A team approach ensures that the child has support both at home as well as in the school setting.

Another therapy type is **Behaviouraltherapy**. This therapy can help an adult or a child with learning how to monitor and manage his/her behaviour. Though it's a lengthy procedure and time consuming at the same time, starting treatment early can have a huge impact in the life and self-esteem of a child. With a combination of medication and/or self-management techniques, children can learn to build the life skills necessary to thrive in school, build healthy relationships, and foster a positive self-image that will serve them well into adulthood. Consider what steps can be taken today to help a child build a healthy and happy future. Behavioural therapy also teaches a person how to:

- Monitor the behaviour of a person with ADHD.
- Follow a behaviour chart to work towards a reward for good behaviour, such as controlling anger or thinking before acting.
- Create a routine and stick to it.
- Turn off televisions, radios, and other electronic devices when doing work or homework to cut down on distractions.
- Be brief and clear when giving instructions to someone with ADHD.

CognitiveBehaviouralTherapy are recommended for people with ADHD to provide a framework for how to better manage emotions and general behaviour. A person learns how to be aware and accepting of one's own thoughts and feelings to improve focus and concentration. This education can help a child or an adult with ADHD as they face day-to-day challenge's at home, in the classroom, at work, and in social situations. In addition, social skills groups can be beneficial for children and teens with ADHD, who often struggle with their social interactions, due to impulsivity.

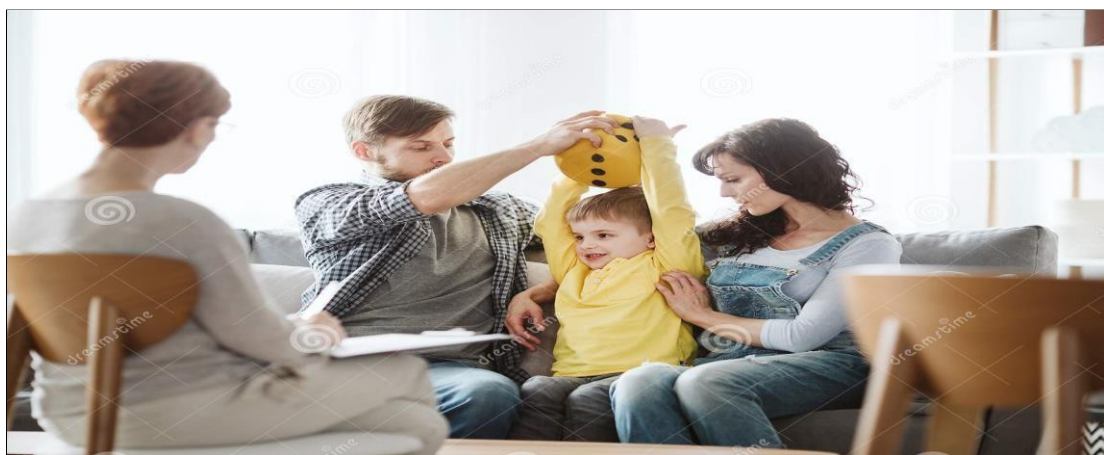
EmotionalFreedomTechnique (EFT). Also known as tapping, EFT involves using the fingers to tap on a series of meridians on the body that can activate emotional release and healing.

NeurofeedbackTraining(or **EEGbiofeedback**) is utilized in an attempt to teach/train one who struggles with ADHD to produce the brain wave patterns associated with focus.

FamilyandMaritalTherapy can help family members and spouses find better ways to handle disruptive behaviours, to encourage behaviour changes, and improve interactions with the patient.

StressManagementTechniques can benefit parents of children with ADHD by increasing their ability to deal with frustration so that they can respond calmly to their child's behaviour.

SupportGroups can help parents and families connect with others who have similar problems and concerns. Groups often meet regularly to share frustrations and successes, to exchange information about recommended specialists and strategies, and to talk with experts.



Role of Technology



How Technology Helps People with ADHD

Technology can be beneficial for children and adults with ADHD. People with ADHD commonly struggle with time management, organization, completing tasks, and failure to pay attention to details. This can make it difficult to stay on task in a school or work environment.

Apps and computer programs can help people with ADHD stay organized, reach goals, and even fight the urge to succumb to distraction.

In **Children**, electronic timers can help students stay on task and pace themselves as they work. In addition, technology use in the classroom helps decrease distraction in some instances. students with ADHD found that computer-assisted instructions in Maths resulted in improved math performance and increased on-task behaviour.

Setting reminders on phones or computers can help **Adults** to attend meetings on time, checking or replying to emails, paying bills for example. It also benefits adults avoid hyper-focusing on one specific task.

Used properly, digital tools can help people with ADHD improve focus, increase productivity, and remember to turn their work on time.

How Technology Hinders People with ADHD

Does your child...

- think about or ask for their cell phone when they're not using it?
- begin to use their phone for no particular reason?
- engage in arguments with parents about their phone use?
- interrupt whatever they're doing when they receive an alert on their cell phone?
- lose track of how much time they spend using their cell phone?
- feel distressed when their cell phone is off or out of reach?
- feel unable to reduce their cell phone use?

Kids with ADHD are at higher risk for becoming behaviourally and cognitively dependent on their device. This can be a cause for concern, as researchers have linked cell phone dependence to symptoms of **anxiety, depression, sleep disturbances, and low self-esteem.**

Technology can be an addiction for **Adults** also.

Smartphone addiction, obsession, online friends become more important than real-life relationships. Compulsive use of Internet -such habits and addictions have negative impact on mind, body and emotions which leads one to more **loneliness, depression, increased anxiety, disturbed sleep, diminishing creativity, reduced concentration level and low self-esteem.**

To prevent technology from taking over one's life, it is important to delegate media-free times (like – during meals and celebrations etc) and media-free zones (such as - living room, outdoor spaces, etc.) to set limits on media use. People with ADHD can also use software and apps to schedule times to have tablets and other devices shut down automatically.

Children are good to imitate. Hence, being a parent, be a role model for them by limiting the usage of such harmful gadgets yourself. Try to find an alternate to divert their attention. For example, A day at the park, a museum, or the pool or any sports or activity of their choice can prove a much-needed break in hyper- focus.

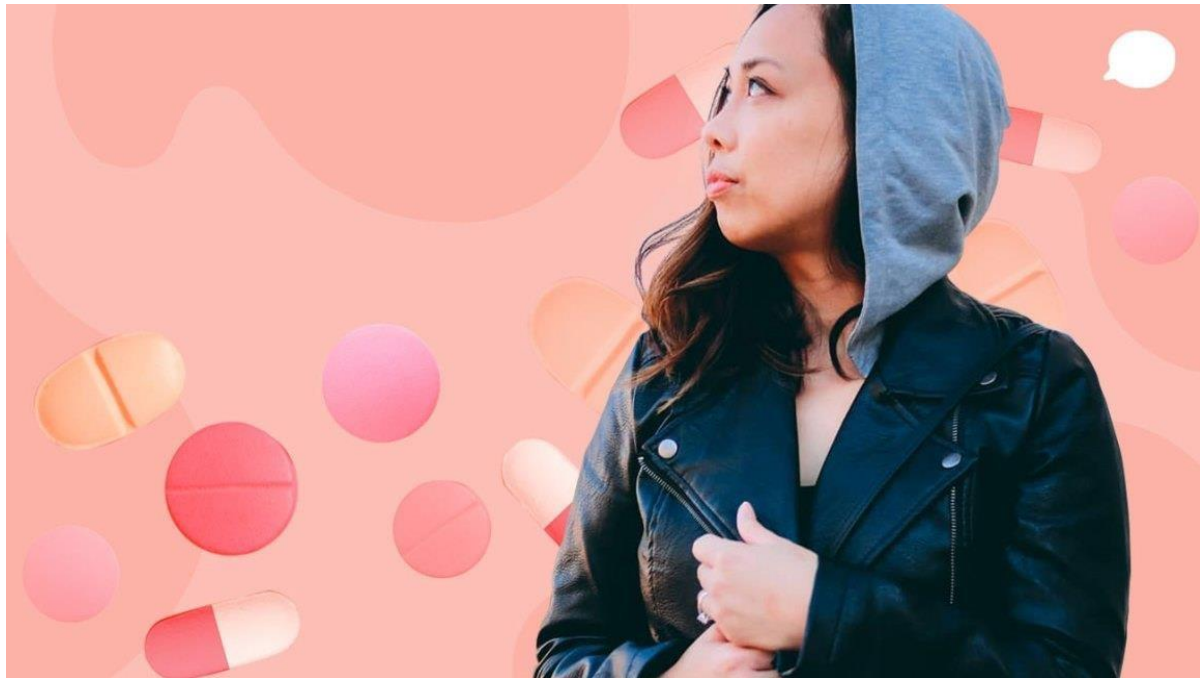
Technology use requires sense of balance and self-monitoring. It can be beneficial to utilize the available software not only to help increase productivity, but also to help decrease distraction and hyper-focus.

Living with ADHD

A child or adult diagnosed with ADHD faces daily challenges that impact nearly every area of his or her life. But tenacity in finding the right medical treatment—while also making time for therapy that focuses on effective behavioural coping techniques—along with balanced diet, regular exercise and sufficient rest is the key to successfully managing this condition. A Doctor or a Counsellor can also offer more guidance to manage individual ADHD symptoms.



MISCONCEPTIONS ABOUT ADHD



Below are the 5 Common Misconceptions About ADHD:

Myth 1: Girls don't get ADHD

In general, young girls aren't as likely to be as hyperactive as young boys or display as many behavioural issues compared to boys. As a result, girls are less likely to be referred for an evaluation of ADHD.

The problem with this myth is that, because girls with ADHD often go untreated, their condition can progress, increasing issues with:

- mood swings
- anxiety
- antisocial personality
- other comorbid disorders in adulthood

Myth 2: Poor parenting causes ADHD

As per research, some of adult patients with ADHD, take their parents into their appointments. During the sessions, it has been observed that the parents share their guilt of wishing they could have done more to help their kid succeed and control their symptoms. This often stems from the myth that “poor parenting” causes ADHD.

This is why professional interventions such as psychotherapy and medications are often required.

Myth 3: People with ADHD are lazy

Many patients with ADHD explain that they're often accused of being lazy, which leaves them feeling guilty for not being as productive and motivated as others expect them to be.

Because symptoms of ADHD may manifest as disinterest, disorganization and a lack of motivation, may be mistaken for laziness. They just need an activity they really enjoy, more structure and reminders to get things done — especially activities that require sustained mental effort.

This myth can be especially harmful as these judgments can leave people with a sense of failure, which can progress to poor self-esteem and lacking confidence to pursue ventures in life.

Myth 4: Having ADHD ‘isn’t that serious’

While ADHD isn't life-threatening, it can have serious implications on a person's overall quality of life. Compared to the general population, people with ADHD are more likely to have: [anxiety /mood](#) swings

One common observation with ADHD adult is that it's difficult to keep up with work responsibilities. This means they live in continual fear of losing their jobs and not being able to keep up financially, which can take a toll on their personal life.

Myth 5: ADHD isn't a real medical disorder

Research has demonstrated differences between a brain with ADHD and one without it, in addition to differences in how brain chemicals such as dopamine, norepinephrine, and glutamate operate.

The myths that surround ADHD need dispelling if we're to raise awareness about this condition and provide folks within the community with what they need to succeed in all aspects of their lives.

ADHD and IQ

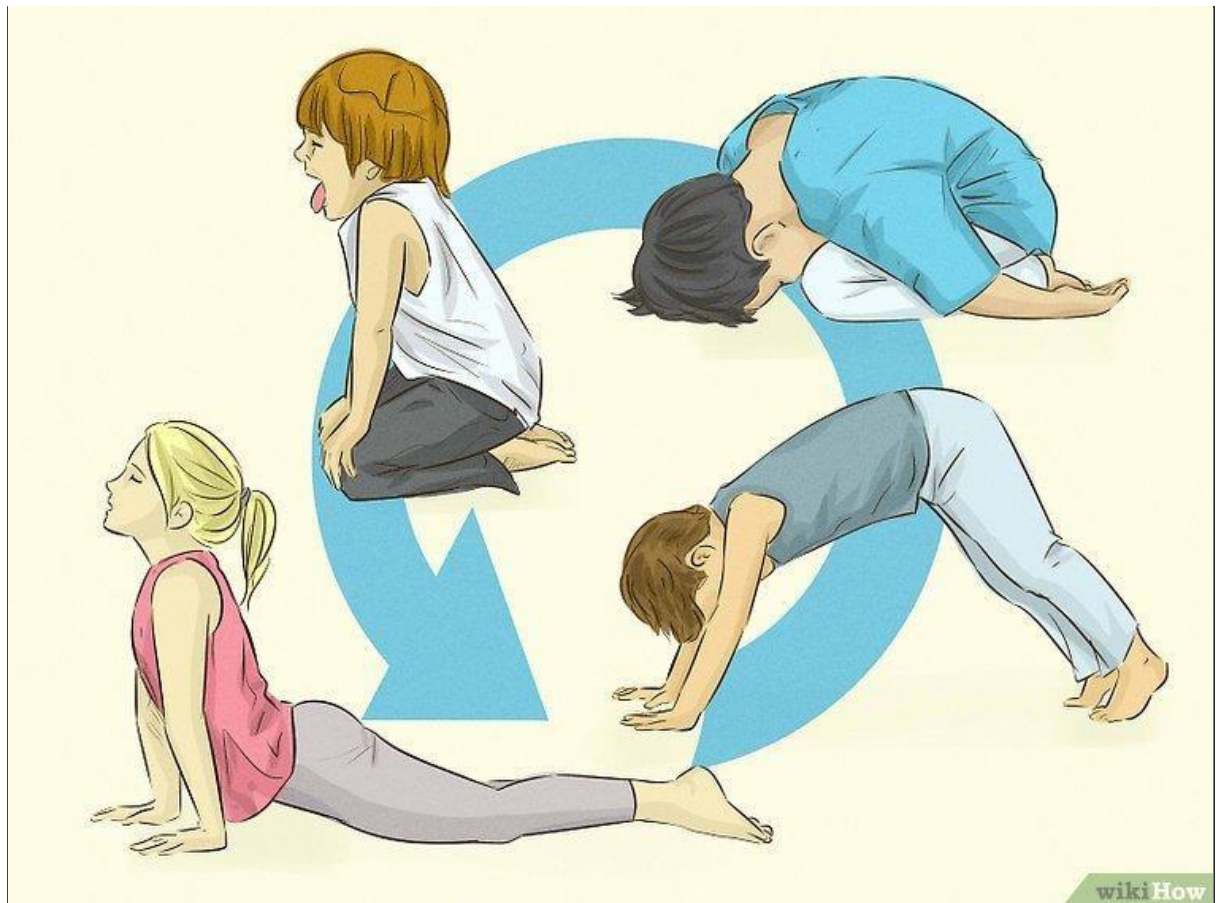
Many people take comfort in the misconception that children with ADHD are smarter than those without the disorder. However, intelligence and ADHD don't go hand in hand.

Studies of adults suggest that differences in intelligence are not meaningful and may be explained by associated health problems.

Is ADHD a disability?

While ADHD is a neurodevelopmental disorder, it's not considered a learning disability. Though, it's not a disability, technically, ADHD can have lifelong effects.

CO-RELATION OF YOGA WITH ADHD



WHAT IS YOGA

Meaning: The word “**Yoga**” has originated from the Sanskrit word “**Yuja**” means ‘to join’. It is the joining of “**Atma**” with the “**Parmatma**”, “the Soul” with the “Super Soul” and “Individual Consciousness” with “Super Consciousness”. This joining proceeds from physical (gross) level to the spiritual (subtle) level.

As per the Vedic concept, the word “**Yoga**” is used to express the meaning of joining.

Concept and History of Yoga

In India, the great rishis developed the whole science of spiritual journey. Such attempts gave rise to development of “*Tantra Yoga*” by *Lord Shiva*. Later on, the system of Hatha Yoga was developed whereby the Yoga practices became more tangible and definite. Until 300-200 B.C., Hatha Yoga was household name in India, which shifted towards a more rational approach to yoga. It culminated into the system of “*Patanjala Yoga*”, which factually proved to be a simpler and more practical form of “*Raja Yoga*”.

In **Yogic literature**, broadly, two categories of definitions are found one denoting ‘Union’ – albeit perceptual – of *Atman* (Self) and *Paramatman* (Supreme Self) *Siva* and *Shakti*, *Ida* and *Pingala* etc. (Hatha Yoga School), the second one denoting a separation of *Prakrti* from *Purusha*, eternal Self from empirical self-etc. (Samkhya School).

Though numerous types of Yoga have been claimed and accepted in the yogic literature, the two unequivocally accepted mega streams of Yoga’s are *Patanjala Yoga* and *Maha Yoga*, although *Patanjala Yoga* is considered as a representative form of *Raja Yoga*. *Maha Yoga* has four variants. Viz., *Mantra Yoga*, *Hath Yoga*, *Laya Yoga* and *Raja Yoga*. Of these, *Hatha Yoga*, being the most popular today has been dealt with in detail alongside *Patanjala Yoga*.

Keeping in view of ancient wall paintings, fossil remains, and scriptures like the **Vedas, Upanishadas, Mahabharata** etc., the e-science of Yoga can be traced to about 500 B.C., and widely believed to have originated from Lord Shiva. By around 300 B.C., **Patanjali**, the great exponent of systematic yoga had compiled *Patanjala Yoga Sutra* integrating varied branches such as *Ashtanga Yoga*, *Kriya Yoga*, *Abhyasa & Vairagya Yoga*, *Samyama Yoga*, *Patanjala Yoga* reigned supreme until about 900 A.D., when *Gorakshanatha* entered the scene and contributed such monumental works as *Goraksha Shataka*, *Goraksha Samhita*, *Goraksha-paddhati* and *Siddha-siddhantapaddhati*. Thus, a new system of Yoga, later known as *Hatha Yoga*, was established.

Gorakshanatha, the great exponent of Hatha Yoga defines Hatha Yoga as a science by which one can attain a spiritual state called *Samadhi* by ‘knowing’ and ‘controlling’ *Pingala*, *Ida* and *Sushumna Nadis*, the main channels through which *Prana* flows. Etymologically, the term ‘Hatha’ is constituted of two Devangiri Varnas viz., “Ha” and “Tha” denoting Right and Left, *Pingala* and *Ida*, *Shiva* and *Shakti*, Sun and Moon etc. respectively.

In the **Patanjali's** metaphysics, Kleshas (afflictions) are considered as the root cause of existential disorders, in general, and of psychosomatic disorders, in particular. Kleshas are considered as hereditary in nature while Environment denotes the occurrence of critical incidences in one's life.

Patanjala Yoga has two broad stages, namely **Bahiranga** and **Antaranga**. The Bahiranga Yoga can be taken as a beginning step towards Hatha Yoga. Antaranga Yoga, indicating inward going processes, leading to Samadhi, can be taken to be Raja Yoga proper.

In short, Hatha Yoga is an easy and short-cut methodology initiated on the grosser body level, while Patanjala Yoga starts directly on the subtler levels of Chitta.

The process of making Yoga more useful and acceptable has resulted into a text known as '**Hatha Pradipika**' of **Svatmarama**, around 1450 A.D.

Svatmaram has said that a control on the flow of a prana results, in a control of Chitta and, conversely, a control on Chitta results into a control on prana.

Yoga Vasishtha defines Yoga as “ the discipline that calms down the *manas*.” Once calmed down, the manas becomes an effective instrument at the hands of **buddhi** and **atman**. The Manas can be calmed down through *sattva guna* whereby the sattva guna would endow one with –Total security (sat-swarupa).

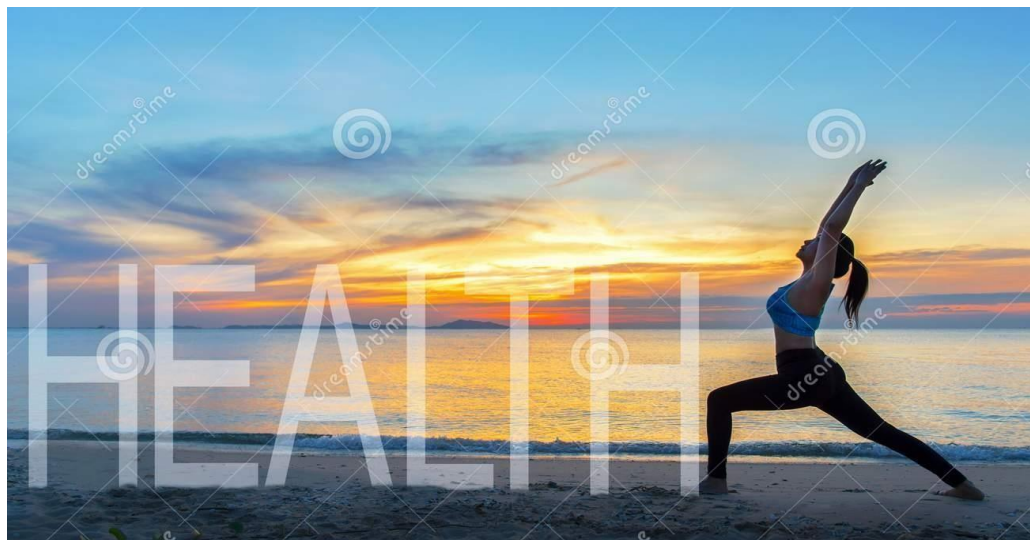
There are different types of yoga as below

- 1) **Mantra Yoga / Japa Yoga:** is very useful for preparation of antarang sadhana. It improves concentration level.
- 2) **Bhakti Yoga:** Bhakti Yoga creates affection in the mind and purity in thoughts and behavior. Hence, it is most suitable and simple to achieve emotional stability.
- 3) **Karma Yoga:** It is important to do karma yoga without any lure (expectation) of the fala to experience the complete joy.
- 4) **Dnyana Yoga:** it can be felt through the real and correct knowledge as it gives experience of divine satisfaction.
- 5) **Hatha Yoga:** “Ha” meaning Sun and “tha” meaning Moon. By joining these two extremes and balancing both the nostrils (through anuloma – viloma pranayama), elevates the kundalini shakti situated at the Muladhara Chakra.

6) **Raja Yoga:** Patanjali Yoga is also known as Raja Yoga or Astanga Yoga. It is divided into two broad categories. Antarang Yoga and Bahirang Yoga. In Bahirang Yoga, the body is the main instrument used for experiencing the essence and in case of Antarang Yoga, the mind is the main instrument for experiencing the essence.

“Freedom from bondage” in yoga signifies one’s liberation from all kind of fixations and attributes as well as a continual feeling of freedom and knowledge.

What is Health?

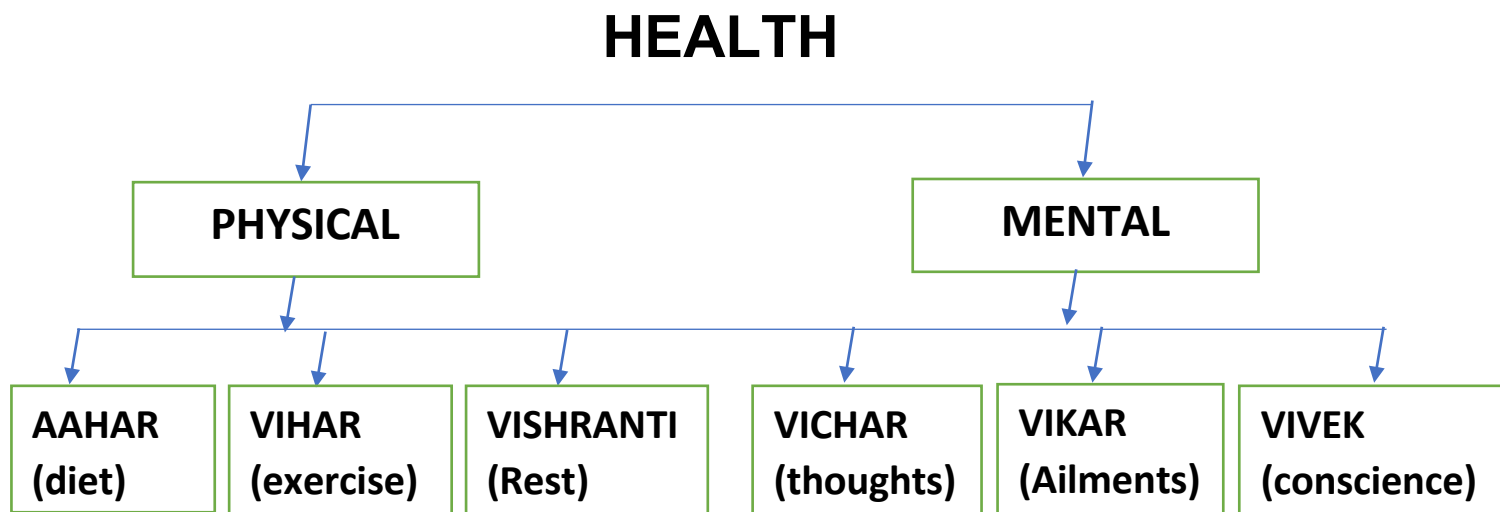


The term *health* and *heal* have their origin in the root ‘**heilen**’, meaning to restore together. The Sanskrit word for good health is “**Swastha**”. The word is made up of “**Swa**” meaning “the self” and “**stha**” meaning “to be established in”. One whose consciousness is established in the self is the possessor of good health. In order to bring this awareness, there should be no disturbances in the bodily functions, mental aptitudes, emotions or social life.

According to Laghu Yoga Vashishtha, the normal functioning at the *Pranic* level signifies a “**positive health**”.

According to **World Health Organization (WHO)**, “Good Health is a sense of well-being at physical, psychological, emotional, social and spiritual levels.”

The factors responsible for physical and mental health are as under,



The Yogic view is quite similar. According to yoga, human beings are made of **five sheaths (Koshas)**. They are –

- 1) Annamaya kosha (physical body)
- 2) Pranamaya kosha (energy body)
- 3) Manomaya kosha (mental body)
- 4) Vijnanamaya kosha (wisdom or intuitive body) and
- 5) Anandamaya kosha (bliss body).

Each of these is responsible for managing specific aspects of a human being. But the two major ones are,

- i) **Annamaya kosha (physical body)**- is the evident human body, and
- ii) **Pranamaya kosha (energy body)**- manages the life force or *prana* through the *Chakras* and so on.

All diseases arise out of an imbalance in these koshas caused either by outside factor such as pollutants or by an internal disturbance due to a poor stress response.

Yoga, through its practices of asanas, pranayamas, pratyahara, dharana and Dhyana brings the balance back in the five koshas. In Yoga, good health means harmony in all five koshas.

What is Mind:



Our ancient scriptures like the Vedas and the Upanishads, Religious and Philosophical treatises have different definitions of mind.

The body and mind are inseparable from each other. A body that is sick and diseased forever, makes the mind agitated, lame and inefficient leading it to depression. Similarly, an excited or nervous mind, a weakened mind or unstable mind makes the body ill. When the mind is not sound, body is also not sound and vice versa. Many times, it happens that the mind is diseased, but the whole body gets affected. This is called a psychosomatic disease.

What is Mental Health?

The **World Health Organization** defines **Mental Health** as,

“a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”

Mental Health in the context of **Yoga** can be defined as,

“A felt state of perfectly jubilant psychophysiology, leading one to a most desirable personal and interpersonal adjustment, as well as, an effective coping behavior, culminating into a transcendental joy that endows one with equanimity, creativity, productivity, a perennial sense of a total security, altruism, a comprehensive freedom and a comprehensive awareness towards realizing one’s all potentialities.”

According to **American Mental Health Association**, following are the qualities and capabilities of a normal person:

- a) Emotional Stability
- b) Maturity of character
- c) Ability to recover from the paralyzing stresses of life in quick time
- d) Ability to judge reality correctly
- e) Ability to foresee
- f) Ability to love and sustain affectionate relationship with people around
- g) Ability to work cheerfully
- h) Having an effective conscience.

Mental disorders are diseases of mind. Sage Vasishtha has narrated two types of Vyadhis (diseases). Vyadhis born out of Adhi and Vyadhis not born out of Adhis. Adhi means mental disorder and Vyadhi means physical diseases. The Vyadhis (diseases) born out of Adhija (physical ailments arising from mind), i.e. Psycho-somatic diseases.

“Adhi kathambhavedvyadhihikatham cha savinashyati”.

Mental disorders arise due to pervert thought process or wrong point of view. At the root of all these is verily weakness of mind, namely – personality, inferiority complex, lack of self-confidence.

If the atmosphere in the family is not good and the parents are bickering all the time or not behaving properly, then the minds of the children are spoilt right from their childhood. In the mean course of time, they sometimes turn to crime. It depends on how the mind is cultivated, what kind of guidance is offered, whether the mind of a person is strong or weak etc.

Hence, Sage Vasishtha advises to keep the mind cheerful to get relief from the Adhi-Vyadhis (diseases):

“Adhiviyadhivinirmuktamsantushtamyasyamanasam”.



Psychology, as an applied science, too has an express purpose of bailing one out of his/her existential problems and endowing him/her with a conflict free, fulfilling and harmonious life in the broad context of his/her environment.

In **modern terminology**, Yoga may be defined as: “The system of Mento – spiritual training for realizing the true nature and the Creative potential of the ‘Transcendental Consciousness’ (Eternal Self) and its freedom from the conscious and unconscious impulses, reactivities and conditioning of the ‘Phenomenal Consciousness’ (Empirical Self)”. Both, **Modern Psychology** and **Patanjala Yoga** try to unearth the causes of mental inadequacies that block one’s continual growth and happiness, as a human being. Both try to recommend ‘practical’ way out of these inadequacies so that human being prevails as a master of his/her environment.

Psychological benefits of Yoga as per Palsane (1998):

- (i) Impulse control, cultivation of an attitude of detachment, gaining control over the excitation and its potential fallout, thereby maintaining neurophysiological balance.
- (ii) Meditation is useful in clarifying goals and resolving internal conflicts. Motivational and attitudinal orientation of the prescription in the *Yamas* and *Niyamas* are such as to take care of most of the stress producing situations in life.

- (iii) Yoga provides a rational and empirical system of thought and living. Anything that causes disturbances can be examined in the light of yoga.
- (iv) In Yoga, like modern psychotherapies de-emphasizing of ego involvement is prescribed for many abnormal conditions, anxieties and stresses.

In Yogic literature, Yoga Meditation is held as the best means to achieve “Absolute Joy” which is “objectless” and “self-existent” in nature. Healing, at this ‘joyful and ecstatic process’ becomes truly holistic.

Yoga Psychology can be defined as,

“the art and science of an objective understanding of yoga for leading a yogic life style, as well as, for establishing conditions and techniques towards initiating and evolving our yoga pursuit for unfolding all our inherent potentials and possibilities, culminating, finally into self-realization.”

Yoga Psychology has a five-pronged [approach](#) to delve deeper into the yogic science:

- 1) Understanding the Psychology behind Yoga Darshana.
- 2) To perceive and establish psychological benefits of yoga for the modern life and living.
- 3) To interpret yogic constructs, concepts and yogic philosophy in terms of psychological terms and in the light of extant psychological theories.
- 4) To identify and establish conditions, criteria and practical techniques to move deeper into subtler yoga practices such as meditation and mantra chanting, so that any one aspiring to get benefited has a fair chance of getting the benefit to a satisfactory degree.
- 5) To establish, scientifically, experiential techniques to make systematic progress into meditative practices towards therapeutic, as well as, spiritual purposes.

Yoga & Psychology comparison

Modern Psychology is lending itself more and more methods of introspection, especially in understanding mind-body relationship. Yoga practices bring about integration at the psychophysiological processes, so that external and internal stimuli would create ‘least imbalance’ within them, facilitating inward awareness to culminate into Self-realization. This mechanism involves correction in faulty

neuromuscular and neuroglandular levels, thereby enhancing one's own inherent immunity as well as a better power of adaption and adjustment. Psychophysiological disturbance results in imbalance in the tonic rhythm of muscles and vessels. Any increase in muscle tone makes a higher demand on circulation, respiration, sugar metabolism etc. According to Patanjali, a conflict creates internal stress that, in turn, results into imbalance in various functions of the body. For this very reason, Yamas and Niyamas would be of great help to restore psychophysiological health and harmony.

A disciplined and methodical practice of Yoga purifies, enriches, strengthens and transforms our mind-body complex, resulting into an improved psychosomatic health and a better mind & body coordination.

Psychosomatic Disorders are the result of the interaction between predisposing factors (heredity) and precipitating factors (unrealistic response patterns towards critical incidences/devastating stressors). It follows that a realistic change in one's response pattern would prevent the occurrence of Psychosomatic Disorders.

- 1) Yoga-induced-decrease in stress is indicated by a reduced muscle tension, lower blood pressure and plasma cortisol and an increase in Galvanic Skin Resistance.
- 2) Yoga produces a decrease in metabolic rate. This, along with the neuro-psychological changes, produces a state of relaxation which is associated with a reduced breathing rate and volume.

Yogic way of Health Management

Sage Patanjali has propagated eight limbs of Yoga, also called Rajayoga. It tries to correct the basic reason of ill health, on both the physical and mental levels. It stabilises the individual on the intellectual level and enriches him/her on the spiritual level. It reflects a composed personality of the person on all sheaths or Koshas. This happens as under:

Yama: initiates corrections in a disturbed Manomaya Kosha.

Niyama: increases mental strength.

Asana: helps regain natural homeostasis on the physical level.

Pranayama: stabilises disturbed prana due to an agitated mind.

Pratyahara: restarts journey beyond mind and emotions.

Dharana: helps us use the intellect more (Vidnyanmaya Kosha)

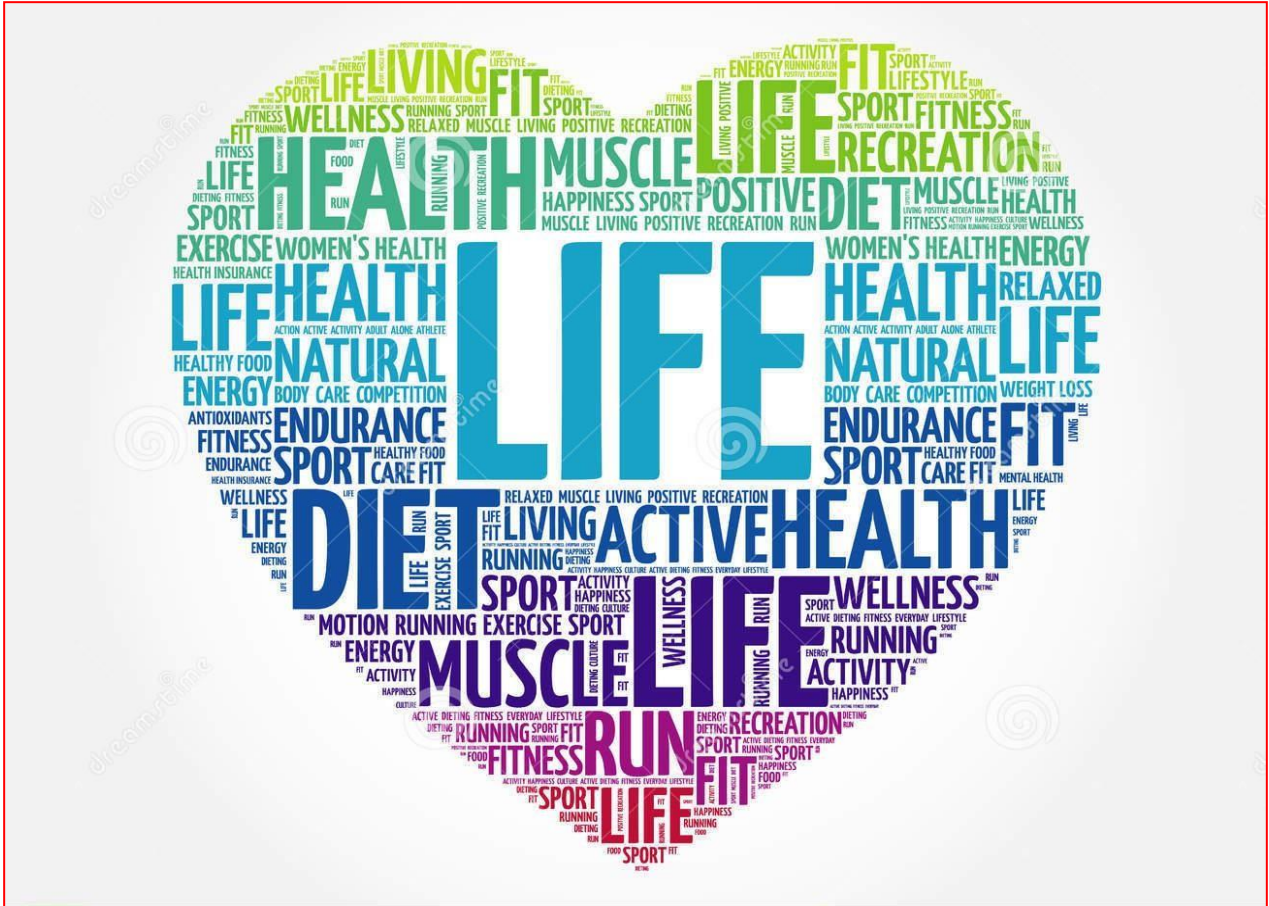
Dhyana: from here, the journey starts towards Anandmaya Kosha

Samadhi: it can be any situation which gives us bliss.

Regular yoga : Some studies indicate that **Yoga** may be helpful for people with ADHD. **Research published in 2013** reported significant improvements in hyperactivity, anxiety, and social problems in boys with ADHD who practiced yoga regularly.



Yoga and ADHD



ADHD symptoms start before age 12, and in some children, they are noticeable as early as 3 years of age. The symptoms can be mild, moderate or severe and they may continue into adulthood.

In today's fast world, where everyone is health conscious and taking steps towards Physical Fitness, Mental Peace and Emotional Stability, there are some people who are totally unaware or away from it.

Yoga has been shown in studies to be a promising therapy. So, practicing Yoga in the early age, might hold more benefits for children with ADHD.

One can do yoga at home with children with ADHD or get professional yoga instructor. One should create a yoga routine so the child can reap the benefits of this practice.

Why Yoga?



Yoga's powerful ability to enhance concentration level and reduce the cortisol(stress hormones level) through a combination of pranayamic breathing, asanas and meditation. Yoga also enhances the mind's ability to control thoughts, feelings and actions, thereby enabling children and adults both to prevent conflicting thoughts and desires from disturbing their concentration and tranquillity. Yoga has a unique quality to teach, how to concentrate and relax at the same time. It encourages a way of living that children can embrace and flourish through for the rest of their lives. Yoga is considered as a complementary therapy to cure or reduce symptoms of many illnesses and disorders. ADHD is also one of those.

The **child** can be taught **Yama, Niyama, Asana, Pranayama** – the first four limbs of Ashtanga Yoga by Sage Patanjali.

Yama and Niyama – Self-restraint and code of disciplines means Yama and Niyama. Yama initiates corrections in a disturbed Manomaya Kosha and Niyama increases mental strength. The inculcation of Yama and Niyama can go a long way in preventing numerous problems that children can face as they mature and

grow into young adults. Social life becomes much better and more pleasant when the children learn the values of Yama and Niyama.

Children can be taught these principles in a fun way. By way of **story-telling or rhymes**, one can explain the children the principles of Yama and Niyama. **Fancy dress** as well as **drawing and art** events and **games** based on this can help enhance their creativity and can deepen the understanding of these values. A '**Carrot**' or an '**Apple**' approach to be followed by offering small rewards for discipline, performance as well as regularity to motivate the children to continue their practice.

The principles of Yama and Niyama for children can be taught in the following way-

Yama – Things to do:

Ahimsa: Don't be violent with self or others. Be caring towards self and others.

Satya: Don't lie. Be truthful to self and others.

Asteya: Don't steal. Be generous.

Brahmacharya: Don't waste energy. Use it wisely.

Aparigriha: Don't be greedy. Be grateful for what you have.

Niyama – Things to do:

Saucha: Be clean.

Santosha: Be happy with self and others.

Tapas: Always work hard.

Svadhyaya: Studying is important. Take time to learn about self and the world around you.

IshwaraPranidhana: Always trust the power inside you.

Asana and Pranayama:

Asana helps regain natural homeostasis on the physical level and Pranayama stabilises disturbed prana due to an agitated mind.

Children suffering from ADHD can be helped by practice of the Asanas and Pranayama that help develop better coordination, concentration, mental calmness as well as attention span. In Asanas, all possible body positions are explored and the body is exercised, like -standing, sitting, lying down (front,

back) and even upside down. This creates acute awareness of the entire body, strengthens the body systems and develop flexibility of the body.

It is necessary to make a child aware of physiology and psychological state of the body. Play-way is the best method to make children understand these things in a better way.

Teach the children to recognize feeling in their body. Connect the Asanas to something that the children enjoy. Rename the poses to make them sound more fun to the children.

Teach the children to watch their breath. Being aware of the breath will help to get the full benefits of Asanas. At first, teach the child to monitor their breathing. Once they get used to that, then they can be taught how to inhale and exhale with each pose.

After the children learn to monitor their breath, show them how to move through the poses. Children find Asanas depicting animals and other similar poses of great interest.

Following practices can benefit the children –

Asanas -

1) **Mountain Pose (Tadasana)** – This is a great introductory pose for children with ADHD. Being a balancing asana, it improves focus through the one pointedness while giving a good stretch to the entire body muscles. Daily practice of Tadasana helps to increase height also in the growing age.



2) **Downward-facing dog pose (AdhoMukhaSvanasana)** - This is very good for relaxing and draining out excess tension and energy.



3) **Tree pose (Vrikshasana)** – This requires the child to balance on one foot. This develops concentration ability of the children. It is also a good challenge for children with ADHD to stay focused enough to maintain their balance.

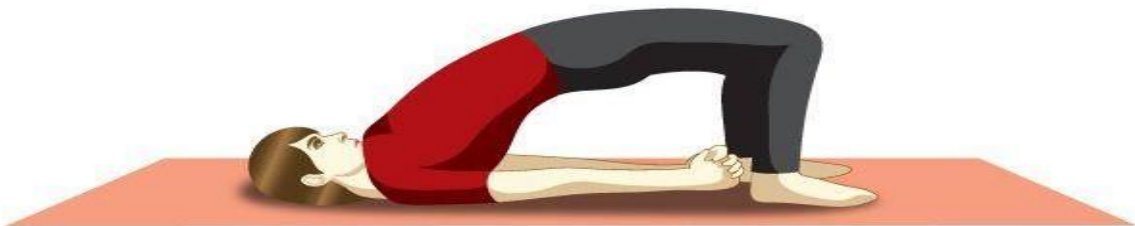


4) **Superman pose (Naukasan)** – This pose can help the child become more aware of their body movements and feel more grounded. They may also enjoy the sensation of "flying" on the ground. It is very beneficial for ADHD child or an adult who has an associated disorder of obesity.



5) **Drawbridge pose (Setubandhasana)** – This pose is good for centering the child and allowing them to have more control over the movement of their body. This is a good pose to help the child relax especially if they seem to be getting agitated or hyper.

Bridge Pose



6) **Wind down with child pose (Shashankasana, YogaMudra)** – This also can be calming and relaxing. This helps increase focus and coordination in children. The child can be asked to go in this pose if they start to feel overwhelmed or hyper.



7) **Hand under foot pose (Hastapadasana)** – This pose helps induce a healthy flow of blood in the head region and are useful to improve memory and attention span.



8) **Corpse pose (Shavasana)** – This is an excellent remedy for the stress that faces the child in the way of unrealistic expectations of teachers and parents. With regular practice, mind becomes more receptive and body feels more energetic. It also improves concentration and decision-making skills.



Pranayama -

Understanding controlled breathing is important in helping ADHD children feel more in control of their brain and bodies. Deep breathing sessions can be a good way to help a child to focus and relax. Learning to take deep breaths offers them tools to reduce stress and anxiety. Deep breathing helps to lessen fidgeting and impulsiveness as it calms the nervous system.

A simple deep breathing exercise in a fun way – Children can bring their fingertips to lightly touch in front of their chest. On inhale, children should slowly expand the arms and finger apart, mimicking a balloon being blown up. On exhale children should bring their fingertips back to lightly touch (like the balloon slowly emptying).

- **Humming Bee(Bhramari Pranayama)** – Children love to make sounds and this pranayama fulfills their wish in addition to bringing about a calm mind. The vibrations of the sound persuade a meditative state by harmonizing the mind and directing the awareness inwards. It decreases the heart rate and induces deep sleep.
- **Sitkari Pranayama (Smiley pose)** – Kids love to smile and being cool. While enjoying the fun of making noise of sit, they feel calm and relaxed. It increases coolness hence very beneficial for hyper active child. It removes fatigue. Hunger and sleep are reduced. Gains enthusiasm and body control.

- **Roaring Lion Pose (SimhaMudra)** - Children usually enjoys making faces. Roaring Lion pose is an easy yoga pose that can help a child to loosen up and have fun on the mat. The idea is to roar like a lion in the jungle in this pose, making the most ferocious face he/she can muster. –Through this mudra they feel happy and get benefited too with it's effects such as - improved blood circulation in the facial region and the muscles flexibility in that area. It also activates the third eye (agnya chakra). It can be fun to do this pose in front of a mirror, as the child get to roar at his/her own reflection.



Pranav Sadhana –



It relieves stress and brings calmness, making Mind introvert. It boosts self-confidence and develops personality through positive attitude. Vibration sound activates all chakras and awakens Kundalini Shakti. Aum chanting provides exercise to the lungs. It helps in improving stammering, speech defects and rigid tongue. It improves breathing rate. Hence very effective for Asthma and other Respiratory problems. It is very effective on insomnia and other sleep disorders.

Meditation – It releases stress, brings awareness and increases grasping power. Reduces short temperedness and fickleness. Mind becomes strong and powerful and person becomes confident. Due to improved mind-body coordination, the mental fatigue diminishes. Restores hormonal imbalance, secreting endocrine glands properly. Improves respiration and thus improves or diminishes respiratory health issues such as Asthma, sinus etc. Helps to induce deep, sound sleep. In case of addiction, regular practice of meditation helps to reduce it to a great extent. For e.g. alcohol, smoking etc. it diminishes or reduces symptoms of psychosomatic diseases.



Trataka-It purifies the eyes and brings steadiness of mind through gazing. It increases Integrity and concentration level. The chanting elevates the spirituality level.

Affirmations / Positive Sentences –recitation during bed time can help the person's unconscious mind to register and make it happen, boosting their confidence level. Chanting in the morning, helps to begin the day with positive attitude and keeps energetic throughout the day.

such as –

- I am calm and relaxed
- I am optimistic
- I am energetic
- I am confident
- I am focused
- I am independent
- My physical and mental health is improving and getting excellent.
- I will face all the problems and obstacles that pose in front of me with unshakable courage and confidence.
- I have no ailment and will never have any ailment etc.

Even **adults** get the similar benefits out of above yoga practices however, as their body and mind both are more developed than child, they can practice **Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana and Dhyana** for their better health and peace of mind, as listed below:

Meditative Asanas like -

1. **Padmasana:** It steadies the mind. Improves Digestive and Excretory system. Minor defects of the spine are corrected. Assists emotional balance. Ankle joints and knee joints become flexible and improve muscle tone.
2. **Parvatasana:** Stretch in spinal column improves the health and efficiency of each vertebrae. Unnatural curvature of the spine and the minor displacement of the vertebrae are corrected. Beneficial on asthma, breathlessness and other such respiratory problems. Growing age kids can gain height through this asana.



3. **Vajrasana:** Ekmeva (the only) asana which can be performed after meal as it aids easy digestion. It removes or reduces spinal defects and helps to form a habit to keep the spinal column in its natural state. It improves functional efficiency of ankle joints and knee joints. Vajrasana is a preventive measure for rheumatic problems.

Balancing Assanas -

Ek Pada Tolasana: It calms the mind and improves focusing. Strengthens the muscles. It improves blood circulation.

Pranayamas -

- **Anuloma – Viloma:** It regulates breathing. Mind becomes calm and heart beats rhythmic. It is useful as a remedial measure.



- **Ujjayi** :Improves agility and efficiency of body and mind both. Increases lungs capacity, improves Digestive, excretory and circulatory systems functioning. It stimulates the nervous system and decreases the heart rate. It increases appetite.
- **Sitali** - It increases coolness. Removes fatigue. Hunger and sleep are reduced, hence very effective on obesity. Gains enthusiasm and body control. Instability of pitta (bile) is cured.

Mudras - All Mudras and Bandhas stimulate the Kundalini Shakti.Regular practice of Mudras keeps one physically and mentally fit, alert and agile.It balances all Chakras of the body.Mudras keeps person youthful and removes the fear of death from the mind.An imbalance in the Endocrine system is corrected with the help of Mudras. These are the general benefits of Mudra. However, a person with ADHD can follow the best suitable mudra as per individual requirement and capacity under professional guidance. For e.g.

Brahma Mudra: It increases the functional efficiency of neck muscles. This mudra is very effective for controlling blood pressure.

Tadagi Mudra: It reduces belly fat. Stomach muscles become flexible. It eliminates disorders such as indigestion, gases, poor appetite, constipation etc. It improves efficiency of digestive and excretory systems.

Likewise, a person with ADHD can gradually increase practising number of asanas, pranayamas, mudras etc in more depth for total tranquillity under proper guidance and care and as per individual capacity.

Kapalbhati - Kapal means forehead and Bhati means to clean or to make it glaring. It is a breathing exercise which includes active exhalation and passive inhalation. This kriya throws out the impurities from the nasal and forehead (sinus) cavity. It strengthens the diaphragm and provides relief from chronic cold.

Shuddhikriyas such as Waman and Jal neti(performed under supervision) can also be beneficial for **ADHD** in case of acidity, cold etc as it helps to cleanse and detoxify the body.

Suryanamaskar -It reduces anxiety. It induces deep sleep, hence advisable for people with Insomnia or other sleep disorders. It strengthens digestive system and improves problems related to it by absorbing nutrients easily.Regular practice helps to lose weight to a certain extent.Body becomes toned and flexible. It helps with blood pressure fluctuations.Brings down blood sugar level.

Some common benefits of Yoga associated with therapies are as under:

1. **Cognitive – Behavioral Therapy:**can fruitfully be followed by **Pranayama** for a better conscious control on the energy dynamics of the patient. In one of the researches at Kaivalyadhama laboratory, a significant change from External Locus of Control to Internal Locus of Control was observed due to Omkar recitation, in police personnel.
2. **Client Centered Therapy:** should be preceded by appropriate yoga practices including **Pranayama, Omkar recitation and yoga meditation.**

3. **Behavioral problems at the corporate sector** such as delaying attitude, emotional outbursts, neuroticism, absenteeism etc. can be tackled if **Vipassana and mindfulness type of meditative techniques** are practiced along with Mirroring type of auto feedback strategies.
4. **Visualization**, often used in sports can be combined with **breathing awareness and Pranayama's** for enhancing reality perception.
5. Autogenic practices may be coupled with ***Omkar recitation or Kriya Yoga*** for a better emotional stability.
6. Creative individuals with a tendency to **neuroticism** can be recommended ***Kriya Yoga*** while those having an inclination to **depression** can be recommended **backward bending asanas** and **Ujjayi Pranayama**.
7. **Extroverted persons** would benefit most with **Kapalbhati, Yoga Nidra and/or Sudarshan Kriya** along with some convergent thinking strategies.
8. **Introverted persons** should benefit from convergent thinking coupled with **Sun Salutation (Surya Namaskar), Ujjayi Pranayama and Bhastrika**.
9. Persons with **hypo-tonicity** can be advised **backward bending asanas** with eyes open while persons with **hyper-tonicity**, **forward bending asanas** with eyes closed alongside the appropriate physiological strategies.
10. Different personality types can be given appropriate yogic interventions along with appropriate psychological inputs for desired effects.

In summary, Yoga practices can be made more experiential through methods available in yogic texts. All experiential inputs ultimately lead one to an '**abstract awareness**' which verily is the medium for achieving spiritual experiences, thereby culminating into a Holistic Personality. If combined judiciously with psychological methods, the experiential interventions of yoga can be made much more practicable and applied, therapeutically.

Nutrition, Diet & ADHD



Does Nutrition Play a Role in ADHD?

Research does not support popular beliefs that ADHD is caused by eating too much refined sugar, watching too much television, parenting, poverty or family chaos; However, they might worsen ADHD symptoms in certain people and dietary changes can improve these symptoms.

Nutrition and Behaviour

The science behind food's effects on behaviour is still quite controversial. However, everyone can agree that certain foods do affect behaviour. For example, **caffeine** can increase alertness, **chocolate** can affect mood and **alcohol** can totally change behaviour.

Many studies have shown that children with ADHD often have unhealthy eating habits or **Nutritional deficiencies** which can also affect behaviour.

One study concluded that taking **Vitamin and mineral supplements** can reduce antisocial behaviour in children and

Omega-3 fatty acid supplements help to improve task completion and inattention. Additionally, they decrease aggression, restlessness, impulsiveness and hyperactivity.

Since foods and supplements have been shown to influence behaviour, it seems plausible that they could also affect ADHD symptoms, which are largely behavioural.

Dr. Benjamin Feingold, an Allergist from “**Feingold Association of the United States**” discovered that food could affect behaviour.

People with ADHD are more likely to have adverse reactions to food, hence, eliminating problematic foods might support to improve symptoms.

Eliminating Salicylates and Food Additives:

Red apples and other healthy foods like almonds, cranberries, grapes, and tomatoes are some of the examples. Salicylates are also found in aspirin and other pain killers.

Eliminating Artificial Colorants and Preservatives:

Artificial Food Colours (AFCs) and Preservatives like Sodium Benzoate can be present in carbonated drinks, salad dressings, and condiments which increases hyperactivity in children, regardless of whether they have ADHD or not. Therefore, avoiding it is beneficial.

Artificial Food Colours like –

- FD&C Blue No. 1 and No. 2
- FD&C Yellow No. 5 (tartrazine) and No. 6
- FD&C Green No. 3
- Orange B
- Citrus Red No. 2
- FD&C Red No. 3 and No. 40 (Allura)

Other chemical preservatives to look for are:

- butylated hydroxy anisole (BHA)
- butylated hydroxytoluene (BHT)
- sodium nitrate
- tert-Butylhydroquinone (TBHQ)

Other dyes may or may not be listed, but the person has to be cautious while using anything that contains colour. Things like -

- Toothpaste
- Vitamins
- fruit and sports drinks
- hard candy
- fruit-flavoured cereals
- barbecue sauce
- canned fruit
- fruit snacks
- gelatine powders
- cake mixes

Eliminating Sugar and Artificial Sweeteners:

Sugar triggers the hyperactivity. Limiting sugar in family's diet helps to maintain overall health. One should check the ingredients list while shopping, for any kind of sugar or syrup content. **Soft drinks** have been linked to increased hyperactivity, and low blood sugar is also common in those with ADHD

Allergens:

Like salicylates, allergens can be found in healthy foods. But they might affect brain functions and trigger hyperactivity or inattentiveness, if one's body is sensitive to them. The top eight food allergens are:

- wheat
- milk
- peanuts
- tree nuts
- eggs
- soy
- fish
- shellfish

Consequently, tracking connections between food and behaviour will make the elimination experiment more effective. A doctor or dietitian can also help with this process.

Diet



It has been said in Yoga that **“Yatha AnnamTathaManaha”**. Hence the food that a person consume, should be healthy from all the angles. It should have proper balance of all the nutrients, vitamins and minerals. Proper and controlled eating at the right time, simple and regular exercise and sufficient rest are the most important components of physical and mental fitness. While the balanced food takes care of physical and mental health, Cleansing processes reduce the internal toxins created by wrong and irregular eating.

Any food or product that stimulates the nervous system due to high level of sugar and salt content should be **avoided** or kept to **minimum** for people with **ADHD**, depending on the individual condition, strength of the digestive system and a reaction towards the product. Below is the list, how avoiding certain foods and habits may aid to reduce ADHD symptoms :

- 1) Avoid rushing your food.
- 2) Do not watch television or use any gadgets (like phone, laptop etc) while having your meals.
- 3) Cut down on consumption of products that makes person hyper. Such as – Chocolate, Ice-cream, Pastries, Cakes, Food containing Cocoa powder, coffee, Cream biscuits etc.
- 4) Any Food that contains artificial colors, chemicals and preservatives. Like – EE 161, EE 171 etc.

- 5) Keep minimum use of Readymade Tomato Ketch-ups and other similar Sauces, Jams, Salad dressings, Peanut Butter, Nuttela etc.
- 6) Food which contains high amount of sugar or salt.
- 7) Caffeine, Fizzy drinks (such as Coke, Fanta, Limca, Sprite, Carton Juices, tea, coffee etc.).
- 8) Readymade Snacks & savories which contains high amount of salt, baking soda or limboo ka phools, like – Crisps / Chips, Chivda, Chakli etc. Ready to eat (instant) products which contain high amount of preservatives like Noodles, Pastas, Upma, Oats, Bhel etc.
- 9) Avoid food prepared from plain flour (Maida) – like pizza, bread, pasta, donuts, frankie etc.
- 10) Evade Very Spicy, oily food.
- 11) Sidestep outside / readymade and canned / packaged food.

Include:- following in daily diet to balance – protein, calcium, vitamin levels and add nutritional values:

- 1) Eat only when you feel hungry, not just because it's time to eat.
- 2) Consume more small meals at regular intervals rather than 2 or 3 big meals.
- 3) Ensure that the mind is peaceful while eating.
- 4) Try to sit on the ground with crossed-legs and eat with hands (fingers) instead of using a spoon.
- 5) The food should not be too hot nor too cold. Lukewarm is best.
- 6) Munch Seeds like pumpkin and sunflower, chia, lin seed etc. for their richness of Omega 3 & 6 which helps to balance hormones and keep the person calm.
- 7) Eat Nuts & Dry fruits: All kind of nuts (if not allergic) for sharp memory and to improve health due to its high protein content.
- 8) Include more raw food and leafy vegetable in meals then cooked food.
- 9) Replace wheat flour and plain flour (maida) with multigrain atta or use more of Nachani, Millet, Jawari flour etc in daily meal.
- 10) Add Varieties of Salads (colorful) to make it interesting and convincing to eat. Include – Lettuce, carrot, alfa-alfa, sprouts, beet root, cucumber, tomatoes, croutons, sweet corn, baby corn, radish, coriander, baby spinach, pea nuts, coconut, curry leaves, lemon, dates, pomegranate, boiled beans / vegetables etc.

- 11) Varieties of (Seasonal) Fruits and Vegetables prepared in different ways to make the food exciting and attractive so the person can eat it happily and without any tantrums.
- 12) Variety of lentils to get benefitted by its high Protein.
- 13) Replace home-made, fresh, less oily and healthy snacks with outside readymade snacks like puffed-rice bhel, upma, poha, idly, sprouts, soaked/sprouted beans etc.
- 14) Consume cow milk 2-3 times a day, daily for healthy bones and muscles.
- 15) Use home-made or desi ghee and unrefined oil (from ghani) for every day cooking.
- 16) Replace Sugar with Jaggery, or brown sugar wherever possible.
- 17) Use rock salt or black salt, sindhanamaketc instead of white salt.
- 18) Eat brown rice instead of white.
- 19) Use unpolished grains (like rice, til, lentil)

Basically, get rid of all whites from your kitchen. Such as – white salt, white sugar, white rice, white ata (flour) and Refined oil.

A healthy diet does not only make the person healthy physically, it nourishes a person mentally and spiritually as well. In addition, it gives energy and feels fresh and contented. Hence, following healthy diet is very important to live a happy and healthy life, especially in today's fast pacing, hectic lifestyle.



Parenting Tips



The most common myth is that ADHD is caused by a difficult family environment. Lack of discipline or too much television, video games, or Internet use can be blamed for the condition. Though environmental factors such as parenting style and stressors in the family can influence the severity of symptoms and the level of impairment, they do not cause ADHD.

Parenting is as important as any other part of ADHD treatment. The way parents respond can make ADHD better — or worse.

At first, parents might not realize that these behaviors are part of ADHD. It may seem like a child is just misbehaving. ADHD can leave parents feeling stressed, frustrated or disrespected. Parents may feel embarrassed about what others think of their child's behavior. They may wonder if they did something to cause it.

Rather than blame themselves for their child's hyperactivity and impulsivity, parents can focus instead on how they can best help their child and provide support they need.

However, before taking any steps in helping a person with ADHD, it is necessary to understand the origins of the condition. By understanding that these origins typically include genetic factors, people can become more objective about the condition and its effects, and blame doesn't have to be placed on parents or the person with ADHD. Whatever the cause of the condition, being a responsible parent, one should follow the below steps:

- **Be involved:** As a parent, learn all you can about ADHD.
- **Talk to your child about the diagnosis:** This can be a difficult conversation to start, especially with young children but try talking these points:

Talk about the brain. Tell your child that everyone has an individual learning style, and everyone is different. This is because no two brains are exactly the same! Explain that your child's brain works very fast, and that can make it hard to sit still, wait before talking, or process thoughts. Be sure to tell your child that a fast working brain can be a strength, but it can also be hard to manage at times.

- Tell your child that lots of people have ADHD. Go online together to Google famous people or leaders with ADHD to find some role models.
- Tell your child that ADHD does not just go away, but that there are ways to work on decreasing the parts of ADHD that cause him/her stress (outbursts, calling out in class, having trouble with friends). Talk about your plan to help your child (strategies at home, at school and medication.)
- If your child needs medication, don't make it a negative. Tell your child that the medication will help manage some of the symptoms of ADHD that he/she can't control on his/her own.
- Give the child feedback that is loving, consistent, and accurate.

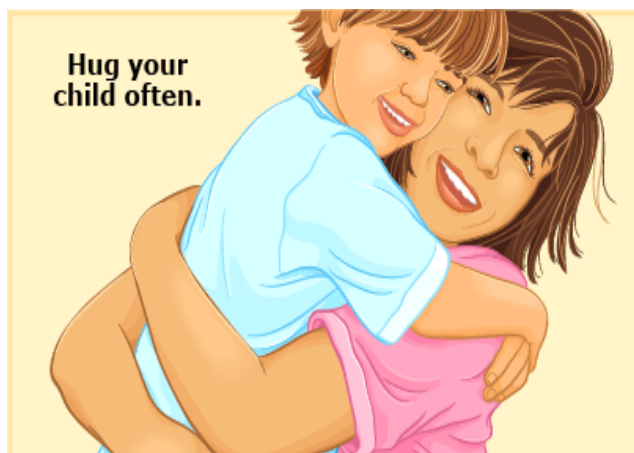
Recent research shows that regular physical activity can both reduce the severity of symptoms and improve cognitive functioning for kids with ADHD.

Know how ADHD affects your child: Every child is different. Identify the difficulties your child has because of ADHD. Some kids need to get better at

paying attention and listening. Others need to get better at slowing down. Ask your child's [therapist](#) for tips and ways you can help your child practice and improve.

Being a responsible **Parent(s)**, Follow the treatment your child's Doctor recommends. Keep all recommended therapy appointments. If your child takes [ADHD medicines](#), give them at the recommended time. Don't change the dose without checking with your doctor. Keep your child's medicines in a safe place where others can't get to them.

- **Focus on teaching your child one thing at a time.** Don't try to work on everything at once. Start small. Pick one thing to focus on. Praise your child's effort.
- **Discipline with purpose and warmth:** Learn what discipline approaches are best for a child with ADHD and which can make ADHD worse. Get coaching from your child's therapist on ways to respond to your child's behaviors. Kids with ADHD might be sensitive to criticism. Correcting their behavior is best done in a way that's encouraging and supportive rather than punishing.
- **Set clear expectations:** Before you go somewhere, talk with your child to explain how you want him to behave. Focus more energy on teaching your child what to do, rather than reacting to what not to do.
- **Spend special time together every day:** Make time to talk and enjoy relaxing, fun activities with your child — even if it's just for a few minutes. Give your child your full attention. Compliment positive behaviours. Don't over- praise, but do comment when your child does something good. For example, when your child waits for his/her turn, say, "You're taking turns so nicely."



- **Your relationship with your child matters most:** Kids with ADHD often feel they're letting others down, doing things wrong, or not being "good." Protect your child's [self-esteem](#) by being patient, understanding, and accepting. Let your child know you believe in him and see all the good things about him. Build resilience by keeping your relationship with your child positive and loving.
- **Work with your child's school:** Talk with your child's teacher to find out if your child should have an [Individualized Education Program \(IEP\)](#). Meet often with your child's teacher to find out how your child is doing. Work with the teacher to help your child do well.
- **Connect with others for support and awareness:** Join a support organization for ADHD like ADDA, CHADD, ADDitude or a local organization to get updates on treatment and info, etc.

Sports and Extracurricular Activities:

It is difficult to manage a schedule when you have a child or adolescent with **Attention Deficit Hyperactivity Disorder**. On top of that, adding extracurricular activities or sports can be an over-demanding schedule. However, many doctors and mental health professionals suggest involving kids in some or any of the sports or extra-curricular activities of their choice can keep them involved and active, and they don't feel bored also. At the same time, it will help them to keep away from TV and mobile screens or video games for some time. In addition, it Utilizes their energy in right way, in right direction and at the right time. Kids can also learn communication and social skills, increase coordination skills, and build up their self-esteem by being part of a sport or other activity. It can lower their risk for depressive symptoms too.

Any Exercise such as - martial arts, ballet, ice skating, adult's gymnastics or yoga, swimming, basket-ball, hockey, rock climbing, hiking, chess and skateboarding are especially good for adults and children with ADHD. It will not only work on body, but on the mental level as well. They learn to control, balance, timing, sequencing, evaluating consequences, switching, error correction, fine motor adjustments, inhibition, team work and of course, intense focus and concentration etc.

Tips for School Teachers



In some cases, the diagnosis of ADHD may reflect a **dysfunctional family** or a poor **educational system**, rather than problems with the individuals themselves. Typical behaviors of ADHD occur more commonly in children who have experienced violence and emotional abuse. Teachers might dismiss a student as lazy or disobedient. Fellow students might tease them and bully them.

Several accommodations can be useful in the classroom setting:

- **Preferential seating.** ADHD students should sit in the front row (or close to the teacher), away from windows and other distractions.

- **Oral and written instructions.** Oral instructions should be reiterated and written down for the student.
- **Break down assignments.** Break down tasks into manageable pieces (for example, provide four maths problems followed by four more until the assignment is complete.) For long term assignments, add specific dates to meet each goal.
- **Highlight key points.** Highlight important words in the directions on worksheets and tests to help the ADHD student focus.
- **Use assistive technology.** Use of technology in the classroom makes the learning process more visual for the ADHD student.
- **Extended time on tests.** Eliminate timed tests and/or provide extended time on tests.
- **Copies of teachers notes.** Some ADHD students benefit from a copy of the teacher's lecture notes after the lecture to check for comprehension.
- **Supervised organization.** Many students with ADHD benefit from a supervised daily cleanout of the backpack and desk to learn organizational strategies. Use of a homework planner checked by the teacher each day and color-coded folders can also be beneficial.
- **Manipulatives for understanding.** Number lines, math manipulatives, word banks and color-coded spelling words (to help focus on difficult words) are useful for both classwork and tests.
- **Provide checklists.** Detailed lists for homework assignments, organization, study skills, and checklists of frequently made mistakes help ADHD students stay on task and avoid repetitive mistakes.



My Profile



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LANGUAGES KNOWN: GUJARATI, ENGLISH, HINDI & MARATHI

MARITAL STATUS: MARRIED

OCCUPATION: HAIR & BEAUTY THERAPIST (FREELANCER)

HOBBIES & INTEERESTS: LEARNING NEW SKILLS, SPENDING TIME WITH NATURE,
DANCING, SWIMMING, PLAYING SPORTS & SHOPPING

MY PASSION: MOTIVATE & SUPPORT PEOPLE BY LISTENING TO THEM

MY STRENGTHS: OPTIMISTIC, HARD WORKING, SMILING, ENTHUSIASTIC

WHY THE TOPIC – ADHD FOR PROJECT?

Reason to choose Yoga course at GMM:

I had learnt and practiced Yoga earlier at few places but nowhere they taught the way I learnt at GMM Yoga class. Just like all other people, even I was under impression that Yoga means stretching exercises, which makes you feel good. But I did not know the reason behind it. Until I joined Vasantik batch of GMM in the month of May 2019, I was unaware of - the correct technique of performing particular asana, which asana has effect on which muscle, what is Pranayama, what is Trataka, what is Suddhikriya, why are they part of Yoga and what is their position in our daily hectic routine.

After joining GMM, I learnt the correct meaning of Yoga and its importance and impact on our life. I was very much inspired by that one month's practice and I continued it for following month. When I heard about their Diploma course, I felt that, if in one month's time I can learn so much and feel so much better, why not join this course and continue my practice as well as learn for other's betterment and that's how I became a part of GMM Diploma Course. I am glad that I took the right decision at right time and writing my project today with full confidence and great enthusiasm.

Reason to choose the topic “ADHD and Yoga” for my Project:

Being into teaching profession in Past, I have been very attached to kids. During my teaching career, I have come across many children including my own son, who were suffering from ADHD condition and regrettably, this number keeps increasing with time. I always used to feel pity for them and their parents, especially when the situation goes out of control. Many a times, I wished to help them but was not aware of the right path. Still as per my knowledge, capacity, the time limit and restrictions of the School and its Protocol, I used to teach them Om Chanting, Prayer, Gayatri Mantra etc. apart from the curriculum. Though, I used to help them in every possible way, in back of my mind, I always felt unsatisfied and helpless and wanted to do something more for them.

I had a clue that certain exercises, asanas, Om Chanting etc. can help them to calm down and make them sit in one place at least for some time but I did not knew that Yoga has such a great impact on many of such diseases and disorders unless I learnt it at Yoga Diploma course of Ghantali Mitra Mandal. I am the happiest person and consider myself fortunate enough that I have got a chance to help such kids and their parents to cope with the condition of an ADHD through Yoga, which affects their daily life.

Another reason for choosing this topic is also that, that – **“Today’s Children are Tomorrow’s Future”** and it is our responsibility to make their future bright with every little help that makes big difference in their life. I am looking forward to work on it with lot of positivity, energy, enthusiasm and most importantly high level of patience, which I have achieved to a great extent through Yoga at GMM in a very little span of time.

ACKNOWLEDGEMENT

"Hari Om 😊"

First of all, I would like to thank and congratulate Ghantali Mitra Mandal (since 1965) and each and every member of it for their hard work, dedication, sincerity, their precious time, efforts and patience for achieving Success in reaching out to people and delivering a message and a true meaning of Complete Health through the means of Yoga.

This institute has not only boosted the confidence of those people suffering from any disease or disorder but also have helped and supported those who believes in "Precautions are better than Cure" concept by following Yoga in their daily hectic life.

Guruji's Like GuruvaryaAnnaji (Shri Krishna Vyavahareji), Shri Krishna Mhaskarji, Dr Ajit Oak, Dr Nevalkar, Dr Mrudula, Dr Vimal Borgaonkar, Shree Rajesh Iyerji, Mr. Ravi Nair, Mr. Girish Kulkarni, Mr. Anand Shasrabudhe, Librarian - Geeta Mam, Vidya Madam, Sanjay Sir, Sushil Sir, Anuja Mam, Rekha Mam, are just a few names who have set an example and have become an idol for many to transform their lives by following their path. I bow to all these great sages for their unanticipated devotion.

In addition, GMM have formed many Diamonds (Mentors) like them under their guidance with a selfless motto to spread the awareness, meaning and benefits of Yoga amongst more and more people; to motivate, support and train them to be a consistent Yoga practitioner and a competent Yoga Teacher, to be independent, confident and be hallowed by many who get benefitted from these sadhana.

They are running such a wonderful course of Yoga which is a "must have" daily need of this modern era with a great rhythm and a virtue. I feel privileged and blessed to be a part of this Mandal.

I am grateful to all my Gurus, Mentors, supporting demos, my group members, all course mates, my family, all those whose names are missed out inadvertently and especially my group teacher - Ms. Manali Vibhute for their constant support, encouragement, corrections and guidance, for our self-introspection, boosting our self-confidence and bringing equilibrium through different techniques. May it be an Asana or a Pranayama, Pranav sadhana or Shuddhi kriya or a Shavasana for that matter; an exam preparation or a project guidance, a lesson plan or preparing for an internship; everyone has supported to a great extent.

Apart from all above, my special thanks to my elder Sister – Ms. Manisha Shah who has not only suggested me to join GMM through this course, but has also guided me through-out the course. Furthermore, she helped me with selecting the topic of this project and most importantly, constantly being after me to complete and submit it on time.

Last but not the least, I would like to dedicate below Mantra to you all my respected Gurus who have proved that they are the Best Ventilators of our life, from whom I have learnt something new every day for my betterment, without any Guru- dakshina:
"GururBrhama, Gurur Vishnu, Gurur Devo – Maheshwara,
GururSakshat, ParahBrhama, Tasmay Shri GuraveNamah ".
Om Shanti, Shanti, Shantihi.....

Hari Om Tatsat 😊

Bibliography / References

The application of input to complete this project has been obtained from various websites, links, books, my mentors, family and friends. Some of them are as below:

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- 3) https://www.mentalhealthexcellence.org/holistic-options-for-adhd-treatment/?gclid=EAlaIQobChMIz43JILKF5gIVgR0rCh11Ywm_EAAYASAAEgLAdPD_BwE
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Books:

- 1) Child Psychology
- 2) Children & Yoga
- 3) Yoga for Health & Peace
- 4) Ananda Yoga
- 5) Know Yoga, Live Yoga
- 6) Notes on Anatomy & Physiology
- 7) Yoga Psychology & Beyond

