

SUPERBRAIN YOGA by Master Choa Kok Sui with a foreword by Dr. Glenn Mendoza, MD, MPH, and a preface by Dr. Eric B. Robins, MD Reviewed By Felice Prudente Santamaria, Philippines

₹he human brain is amazing – even so more sophisticated than any existing computer - that it gives people powerful potential (from The existence of God is self evident). A baby is born into the world with around 100 billion brain cells, give or take a few million. A brain cell is technically called a neuron, and a neuron is so miniscule that 30,000 of them fit on a pinhead. The brain is so important to the species that four weeks after conception, an embryo that will become a baby produces half a million neurons every minute. A complex system of 300 million neurons connects the brain's right and left sides. Each person's 100 billion neurons has about 20,000 very important connecting branches called dendrites. There are said to be more possible connections in the human brain than the number of atoms in the entire universe!

But to make the most of one's brain, it needs to be exercised and nurtured like every other part of the human system. Synapses – points of brain connections – have to be created and conserved for the brain to stay alert and healthy throughout adulthood.

The founder of the Pranic Healing movement, Choa Kok Sui (honored as Master or teacher by Pranic Healers worldwide), has gifted readers with a book to optimize brain wellness: Superbrain Yoga. The focus is on one easy exercise designed to help students improve their grades. But typical of Master Choa (MCKS), the simple solution offers complex benefits not just for students but adults seeking brain wellness into their senior years, and patients with Attention Deficit Disorder (ADD), Attention Deficit Hyperacticity Disorder (ADHD), Down Syndrome, and other developmental challenges and cognitive delays seeking normalcy and cures.

Some Indian friends remember the recommended SuperBrain Yoga squat as a punishment for poor answers and misbehavior in elementary school. It would take Master Choa to deconstruct and analyze scientifically and clairvoyantly what really occurs when doing the yogic exercise... what healing occurs and why.

The squat requires squeezing one's

earlobes with thumb and forefinger in proper position. Getting the position mixed up decreases energy. So reading the book and having it around is useful.

The exercise allows the body's energy centers to "absorb, digest and distribute prana to the different parts of the body." (p. 11) Acupressure energy points for the brain, eyes, forehead, mouth, ovary, parotid, temple, and testes congregate around the area of the ear affected by pressure from the exercise. In addition the fingerpads used in the exercise have acupressure energy points for the brain as well as pineal and pituitary glands. Acupuncturists, auriculotherapists, reflexologists and zone therapists heal by working on acupressure or meridian energy

"Superbrain Yoga is a simple and effective technique to energize and recharge the brain. It is based on the principles of subtle energy and ear accupuncture."

## MASTER CHOA KOK SUI

centers – external points that connect to specific internal parts of the physical body. The Superbrain exercise partially cleans and energizes the energy centers needed for the brain to function efficiently.

Master Choa Kok Sui explains that the Superbrain squat when done correctly moves energy trapped in the basic and sex chakras through the physical body's other major energy centers and finally up into the crown chakra or crown energy center that controls the pineal gland and overall brain health. As the energy moves upward and fills the heart energy center, the student is filled with love and experiences inner peace or calm. When the energy moves up further into the throat and ajna energy centers, the student's intelligence and creativity are

enhanced. Once the energy gets up to the forehead and crown chakras, "it is transformed into subtle pranic energy, which is utilized by the brain for its proper functioning," writes MCKS (p 52). Educators recognize that students learn best when they are relaxed not anxious, and when they have a fair degree of self-confidence coupled with full attention or focus.

Master Choa Kok Sui adds: "Other benefits from the practice of Superbrain Yoga are greater psychological stability and also greater ability to regulate the sex drive especially for teenagers" (p 52). After performing the simple, yogic exercise, he explains that one's "energy centers and aura are brighter. Prolonged practice of the Superbrain Yoga makes the practitioner, in general, smarter and more psychologically balanced." (p 53)

The book adds to healers' understanding of prana and acupressure. Of special interest are testimonials from parents with children challenged by ADD, ADHD, autism, and speech delay who used the Superbrain exercise successfully. The positive results of experiments supervised by medical doctors at special learning schools, and by teachers at middle schools encourage the addition of Superbrain Yoga to the regular routine of students whether specially challenged or not. Although no experiments on age-related conditions are noted, they should certainly be conducted now that the average lifespan is lengthening considerably, and a healthy body includes having a healthy brain.

All pranic healers, especially those dealing or concerned with societal disorders will be happy with the information shared by Master Choa in Chapter 3 about the major chakras. A world in need of full harmony can benefit from people leading a peaceful, meaningful life. The brain has a vital part to play as a new generation seeks to meditate, find happiness and attain enlightenment. With Master Choa's help healers can indeed aid not just individual health but societal well-being.

'Superbrain Yoga' is published in 2005 by The Institute for Inner Studies Publishing Foundation, Inc.

To order the book visit superbrainyoga.com



# Superbrain Yoga in Children with Autism and ADHD

Raina Koterba – Northern New Jersey The Center for Pranic Healing USA

orking with severely disabled and autistic children has been both exciting and challenging, but has also been undoubtedly a rewarding experience. I have learned so much from my students and cherish the wealth of knowledge I gained from our daily interactions. It is truly frightening the rise in the number of children with various disabilities over the past couple of years, especially autism and ADD/ ADHD. New research has shown that the prevalence of the autistic spectrum disorder has risen to 1 out of every 150 children. It is believed that 5-20% of all school age children have ADD/ADHD, which is 1 out of 8 children. Dyslexia is also on the rise, 1 out of every 20 children. These children display a range of symptoms but commonly are unable to communicate and express their wants and needs like ordinary children. Can you imagine having to say something but unable to relay it? No one knows what you are feeling! No one knows what you are thinking! What would you do?

These children respond and relate to the

world much differently. A soothing song may sound like a screeching siren. A light embrace or the feeling of clothes on their skin may feel like a thousand razors. Their sensory systems are constantly in a fight or flight mode. Simple daily activities we take for granted, such as food shopping, may leave them feeling overwhelmed and lost. They don't know how to communicate their feelings so they may completely shut down or respond negatively, maybe even aggressively. Parents, teachers, and therapists are always looking for new and innovative ideas to help these children.

Super Brain Yoga has been introduced to many of my student's parents and colleagues working with developmentally delayed and disabled children. In just a short period of time, the results have been very promising and rewarding to all the participants in the study. Many testimonials are made by the teachers, therapists, and parents using this exercise and the overall observations include: improved emotional states, improved focus and attention, improved social skills, sensory regulation and modulation

and improved memory. Using the Developmental Test of Visual Perception-2, the study has shown that the children completing the exercise on a regular basis show dramatic improvement in areas combining vision, perception and motor output.

Monitoring progress is a challenge. Master Choa Kuk Sui said truth should be both qualitative and quantitative. We monitored progress through the use of skilled observation and the DTVP-2 (Developmental Test Visual Perception), a standardized battery of tests measuring visual-perception and visual-motor abilities. It was completed before starting the study and after seven months and again one year later of completing Super Brain Yoga at least five days a week, twice daily. Significant behavioral changes were noted through teacher, therapist and parent observation. The results are quite astounding and the following are some case studies conducted.

## CASE STUDY #1: AUTISM

MT is an autistic 6-year old twin boy attending a special education school. He is very sensory seeking and aggressive, displaying behaviors such as biting, hitting, head butting, pinching, chinning, screaming, crashing into people and objects and constantly engaging in sexual seeking behaviors. He is unable to sit for longer than five minutes without engaging in one or many of these behaviors.

MT's parents have been frustrated and overwhelmed since their son was an infant, because he was unable to sleep through the nights without waking up frequently and having difficulty calming down. Following regular Superbrain Yoga, in less than three weeks, he started sleeping better and after one year of completing this

TABLE 1: I	DTVP-2 RE	SULTS:							
Subtest	Raw Scor	res							
	Age Equi	valent	Percentile						
	Before	7 months	1 year	Before	7 months	1 year	Before	7 months	
	1 year								
Eye Hand									
Coordinat	tion								
	140	158	170	5y 10m	7y 6m	9y 8m	25%	50%	63%
Copying									
	18	25	29	6y 0m	7y 9m	9y 1m	25%	50%	50%
Spatial Relations									
	18	31	36	5y 3m	6y 4m	7y 1m	9%	16%	16%
Visual Mo	tor Speed								
	0	14	19	<3y 11m	8y 7m	10y11m	1%	63%	75%

TABLE 2:	DTVP-2 RE	SULTS					
Subtest Raw Scores		es	Age Equivalent		Percentile		
	Before	7 months	Before	7 months	Before	7 months	
Eye Hand Coordina		113	151	4y 9m	6y 6m	25%	50%
Copying		14	25	5y 3m	7y 9m	37%	75%
Spatial Re	elations	15	40	5y 1m	9y 7m	37%	95%
Visual Mo	otor Speed	3	10	4y 9 m	7y 2m	37%	75%

technique he slept through the nights with no disruptions. His parents could not believe that such a simple exercise could be the cause of this sudden change. In not believing in the effects of the method, they decided to stop the exercise. The following few days proved challenging for MT's parents, as he reverted back to his old patterns and was unable to sleep, becoming irritable and overly sensitive.

Imagine a child who does not socialize, does not make eye contact, does not show love to his parents like ordinary children. This child would not even play with his own twin brother. After completing Superbrain Yoga consistently, this same child is one who expresses his love and emotions to his parents by regularly looking into their eyes and holding the gaze, kissing and hugging them; something they always wished and hoped for. He is playing appropriately with his toys and using this as a tool to express his needs and is even beginning to seek out his twin brother for companionship. Before starting Super Brain Yoga, this child was unable to sit for longer then five minutes, but now he is able to sit and attend for 45 minutes with little to no self-stimulatory behaviors or overreactions. His overall attention and concentration has improved



and he is engaging in more age appropriate activities.

CASE STUDY #2: ADHD AND PDD RT is a seven year-old boy with a diagnosis of attention deficit/ hyperactivity disorder and pervasive developmental disorder.

and pervasive developmental disorder. He is extremely hyperactive and is always engaging in some sort of self-stimulatory behavior, such as, hand flapping, running, jumping, spinning or talking to himself. His impulsivity, hyperactivity, and distractibility impact all aspects of his life. He is in a self-contained classroom geared for helping children with sensory, behavioral and learning problems.

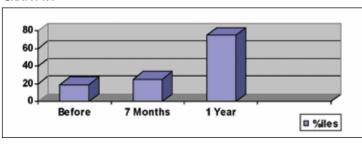
Imagine touching a child softly and the child reacting to the input by throwing himself on the floor? The slightest input will push this child over the edge. He is unable to sit at a table for more than five to seven minutes without constantly moving or crashing to the floor. He is unable to walk across the room without running, jumping, spinning and crashing into objects.

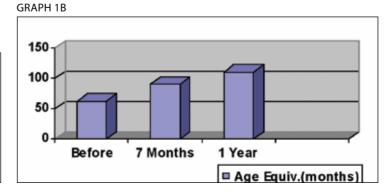
Following regular Superbrain Yoga exercises, he appears calmer and more focused. He is able to engage in an entire therapy session, for about 30 minutes, with little to no behaviors. He is able to walk through the hallways without running, jumping, spinning or crashing. He sits and attends in class, displays improved social skills and expressing his feelings to his classmates and teachers.

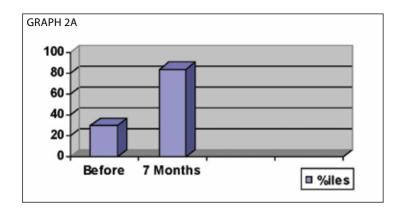
Since RT has started school, his sensory behaviors have gotten in the ways of his schoolwork and no one knew the abilities he possessed. One day after completing Superbrain Yoga, he got up and walked across the room to the blackboard. There he read all the words on the board! Secondary to his increased arousal state and inability to regulate and calm himself, RT never truly expressed his strengths. Now after one year of regular Superbrain Yoga he is mainstreamed into the regular education classroom for part of the day and he is succeeding.

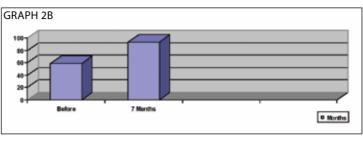
Graph 1A: Composite Percentiles: Graph 1B: Composite Age Equivalents:











Looking at his overall DTVP-2 results R.T. has made a huge improvement in all visual-motor integration subtests. Most improvement was seen in the area of Visual-motor Speed. He began in the first percentile, but gradually moved to the 75% percentile (See table 1A). He began this study in the 5th percentile of children his age and by the time the DTVP-2 was given 1 year later, he had moved to the 50th percentile (see graph 2A). That is ten times higher than when he started. He made an overall improvement of 3 years and nine months in only one year with the use of regular Superbrain Yoga (See graph 2B).

CASE STUDY #3: DYSLEXIA AND	ED	
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JT is MT's twin brother and unlike his brother, he is in regular school. He has been diagnosed with dyslexia and found to be emotionally disturbed. Controlling his emotions is quite difficult for him and he would have regular emotional outbursts and tantrums of screaming and crying, often becoming angry. Since starting Superbrain Yoga, he has not had one! It was difficult to get him to do anything because of his low frustration tolerance, but now he tries new and challenging activities with confidence.

With his disability, schoolwork was challenging, frequently drawing letters backwards, difficulty copying simple shapes and recognition of letters were poor. Given the diagnosis of dyslexia, you would believe JT would be having extreme difficulty reading, but that just isn't so. Now not only does he know and write all of his letters but he is reading with ease. His teacher has actually noted that he is one of

TABLE 3: DTVP-2 RESULTS									
Subtest	Raw Scores		Age Equivalent		Percentile				
	Before	7months	1 year	Before	7 months	1 year	Before	7 months	
	1 year								
Eye Hand									
Coordinat	tion								
	143	150	167	5y 11m	6y 3m	9y 0m	25%	25%	50%
Copying									
	24	34	34	7y 5m	11y 2m	11y 2m	50%	91%	84%
Spatial Re	lations								
	37	40	43	7y 4m	9y 7m	11y 2 m	50%	75%	91%
Visual Mo	Visual Motor Speed								
	0	7	9	<3y 11m	5y 6m	6y 11m	1%	16%	25%

the best students in the classroom and is so pleased with his progress.

Graph 2A: Composite Percentiles Graph 2B: Composite Age Equivalents

Looking at his overall DTVP-2 results J.T. has made a huge improvement in all visual-motor integration subtests. Most improvement was noted in spatial relations. He began in the 37th percentile, but gradually moved to the 75th percentile (see table 2). He began this study in the 30th percentile of children his age and by the time the DTVP-2 was given 7 months later, he had moved to the 84th percentile (graph 2A). That is almost three times higher than when he started. He made an overall improvement of two years and 10 months in only seven months with the use of regular Superbrain Yoga (see graph 2B).

CASE STUDY #4: TBI AND ADD BC is a 7 year-old boy with the diagnosis of attention deficit disorder and traumatic

brain injury. He was born with enlarged ventricles and missing a corpus collosum, the part of the brain connecting the left and right sides. This is a child struggling with his everyday activities including perception, memory and overall learning, acting out frequently and isolating himself from his classmates and family. He is in a self-contained classroom geared for helping children with behavioral and learning problems. He will frequently refuse to do anything and "tune out" any and all directions, unable to complete simple one-step commands. Since completing Superbrain Yoga regularly, he no longer displays defiant behaviors and is showing an overall improvement in his demeanor and social skills. He frequently seeks out children to play with and seeks out teachers for help and assistance with things that are difficult for him instead of giving up. Multi-step directions are now being followed with little to no help.

This student displays difficulty with

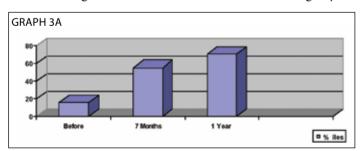
retention of new information and for three years has been working on letter, color and shape recognition. Four out of 26 letters was all he could recognize, but now he knows 20 letters consistently, all colors, and all shapes. He displays improved self-esteem; trying new and challenging things.

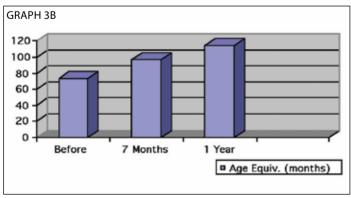
Graph 3A: Composite Percentiles: Graph 3B: Composite Age Equivalents:

Without a doubt again, looking at his overall DTVP-2 results B.C. has made a huge improvement in all visual-motor integration subtests. The area where most improvement was seen is the Visualmotor speed subtest. He began in the 1st percentile, but gradually moved to the 25th percentile (See table 3). He began this study in the 16th percentile of children his age and by the time the DTVP-2 was given one year later, he had moved to the 70th percentile (See graph 3A). That is four times higher than when he started. He made an overall improvement of three years and five months in only one year with the use of regular Superbrain Yoga (See graph 3B)

## CONCLUSION

With the use of regular Superbrain Yoga, the children are calmer and more focused. Overall improvement is shown in all areas including function and behavior;







"He made an overall improvement of three years and nine months in only one year with the use of regular Super Brain Yoga"

interacting with the environment with more success. Using a standardized test helps to understand the functional improvements made in areas of visual-motor integration and the testimonials from parents and teachers give you a picture of the child's

overall demeanor, but nothing speaks louder than the children's behaviors. Often during transitional or unpredictable times of the day, the children requested the exercise in their own individual way. Some children would start holding their ears in the SuperBrain position or even say, "Ears!" or "SuperBrain!" as if to tell us they need it. During school, some children stood up and started engaging in Superbrain Yoga with no external prompting. This supports the

evidence that the exercise may be calming and organizing for many of the children giving them a sensory tool they can utilize to help regulate and harmonize their own internal arousal states.

In conclusion, all of the children in the study have made dramatic strides in all areas of function. Teachers and parents are in awe that an exercise that takes less than one minute can help a child to make phenomenal strides in such a short time. There have been significant improvements in the sensory processing, visual-perception, visual-motor, speech, language, communication and social behavior in these children.

Super Brain Yoga may be the missing key to unlock the mystery of these children. In four years of working with this population, I have not seen the progress or gains these children have made in only one year. Super Brain Yoga can be a critical component in therapy progress and improvements in overall function and success. This is an easy and quick exercise that will change the lives of these children, teachers, and parents forever.



## -A Three Year Study-

Improving the Academic and Behavioral Performances in Teenagers by Kim Siar, Center for Pranic Healing, New Jersey, USA



ypically it takes super strength to work with thirteen to fifteen-year old adolescents experiencing academic and behavioral problems. The level of teaching that is required to motivate, liberate, and educate these teenage students from the obstacles within is a taxing situation. That is until Master Choa Kok Sui's release of Superbrain Yoga. For the past three years, students

attending an urban school district in Norristown, Pennsylvania, have proved that students practicing Master Choa Kok Sui's Superbrain Yoga, now have an opportunity to experience success on many levels.

Presently, as in most urban school districts, the students in Norristown, Pennsylvania, are struggling with standardized test scores. These students are not only failing academically but quickly becoming disengaged with the learning system as a whole. Behavioral problems are more consistent than many students attendance. A teacher assigned to teach the struggling students knows it takes a miracle to move the mountain within these students or a mountain mover. Master Choa Kok Sui and the release of SuperBrain Yoga is just that.

Typically the teenage years between thirteen and fifteen-years old are a tumultuous time in itself. The brain at this stage is experiencing many changes. Master Choa Kok Sui explains this period as a time of great physical strength and even greater hormonal strength. In the chaos of learning to deal with these physical and hormonal changes, the mental body is often the last one to drive the decisions the student makes throughout a day. Yet it is the faculty used as the main measurement of success, evaluating both the students and school district. In an attempt to increase test scores, students are often taken out of their interest-based classes for remediation. This often leaves the student angry, belittled, and with little understanding of the long term benefits for improving academically. Conversation and any other attempts to move the student to a level of success often falls on deaf ears. As a teacher working fifteen years with this type of student, the immense effort needed to move students marginally had me questioning my occupation, my beliefs, and often left me fighting a system with energy that served no purpose. As a result of the success of Master Choa Kok Sui's Superbrain Yoga now there is not only hope but a scope that provides a teacher and a student the opportunity to see who they can be when the brain is activated and energized. For the past three years data has

demonstrated that students performing Master Choa Kok Sui's, Superbrain Yoga have improved academically, emotionally and behaviorally.

In the first year a pilot study of two classes totaling thirty-six students served as the experimental group while sixteen served as the control group. These students performed the exercise regularly, before tests, and when they were noted to be visibly tired, struggling emotionally, or needed to assimilate further information. In that year, 83% of the students in the experimental group improved their standardized tests scores using the Gates-MacGinitie Reading Inventory as a measurement tool. The average percentage

"In that year, 83% of the students in the experimental group improved their standardized tests scores using the Gates-MacGinitie Reading Inventory as a measurement tool."

point change in scores was 24 points for the experimental group. For example, students once scoring 64% on tests were now scoring 88%. In the control group, only 50% of the students improved their test scores with an average percentage change of 14 points. In addition, 17 students in the study moved to higher performance levels while only six from the control group experienced a significant shift. In the experimental group one student qualified as gifted and six of ten students inducted into the National Junior Honor Society, a prestigious academic program, for the following school year.

In the second and third year, the Pennsylvania System School Assessment Practice Test (PSSA) designed by the district to model the annual state assessment was used as an evaluation tool. 28 students participated in the second year without a control group. In this class, there were a number of students struggling with behavioral problems such as: depression,

low self-esteem, ADD and ADDHD, and compulsive disorders. One student shook uncontrollably while the other would often tear her work into pieces and take a failing grade before handing in her perception of flawed work. As these students performed Master Choa Kok Sui's Superbrain Yoga, the students were able to create enough space between their reactions to apply tools that would allow them to experience their responses differently. As a result these students had a greater opportunity to not only find themselves but redefine the aspects of the habits that would no longer serve them. In the first two years of the study, it was these changes that resonated with the students the strongest. In many of their reflections and in their conversations vears afterwards, the students commented fondly on the inner changes that they made as a result of the exercise.

n the third year of the study, 36 students performing Master Choa ⊾Kok Sui's Superbrain Yoga were compared to a control group of 36 students. Once again, the data reflects that students performing Master Choa Kok Sui's Superbrain Yoga perform better academically and behaviorally. In this year the experimental group increased test scores by 25% while the experimental group only increased by 15%. In the experimental group, twenty-four of the thirty-six students improved to levels of proficiency or higher, while only fifteen out of the 36 students improved in performance levels. It was also determined through the scientific evaluation of Dr. Eugenius Ang, Jr. (Ph. D Post-doctoral fellow in the department of Neurobiology at Yale University School of Medicine) and Dr. Glenn Joseph Mendoza, (M.D., M.P.H. Practicing Physician and Director of the Neonatology and Neurodevelopment program in Upper State New York and Associate Professor, Clinical Pediatrics at the New York Medical College), that the quality of the experiment has a p value of .0001 which supports that the data collected is statistically and scientifically strong.

Although the quantitative data is very important, as a teacher it is the qualitative data that has made the biggest impact



on me. Story after story these students performing Master's Superbrain Yoga soar! Their social skills, emotional responses, self confidence and self esteem improve. In each study, year after year it is witnessing the transformation of their inner struggles that I am humbled at the impact this exercise has on the lives of these students. They no longer seemed to be lost in the sea of emotional pulls but anchored and open to the world around them.

Each year I ask students to reflect on the practicing of Master Choa Kok Sui's Superbrain Yoga as a part of their daily instruction and each year the responses are consistently positive and reflect the potential the students reached as a result of the program. Students' question why Superbrain Yoga is not practiced everywhere. I cannot move the students to the level of these test scores nor the shifts in behaviors without it.

Superbrain Yoga has changed my role as a teacher as well. Seeing the students' levels of success with Master Choa Kok

Sui's Superbrain Yoga moves me to do more. In the three years of implementing Master Choa Kok Sui's Superbrain Yoga. I have experienced three promotions and have been nominated for four teaching awards. In 2005-2006 I was awarded the Chamber of Commerce's Outstanding Educator of the Year for Montgomery County. It is only through Master Choa Kok Sui that any of this is possible.

I am deeply and profoundly grateful for the success of Master Choa Kok Sui's Superbrain Yoga with the students and the ripples of MCKS work throughout the school system. The profound academic and behavioral changes in these students allow me to witness the miracles of Master Choa Kok Sui each and every day.

Superbrain Yoga is the gateway for many more products of MCKS Pranic Healing in school systems. It is an extremely valuable tool that helps not only teenagers, but the teachers who work with them experience their potentialities.

## What the Students had to say...

DOING THE SUPERBRAIN EXERCISE (YOGA) HELPED ME A LOT. BEFORE I HAD BELOW BASIC (FAILING SCORES) ON MY SNAPSHOTS, NOW I HAVE PROFICIENT(AVERAGE TO ABOVE AVERAGE).

BA

JS

THE SUPERBRAIN YOGA HAS HELPED ME THINK BETTER AND FASTER.

THE SUPERBRAIN YOGA HAS IMPROVED MY GRADES AND IT HELPS ME DO BETTER IN SPORTS. MY LIFE HAS BEEN BETTER EVER SINCE I STARTED. PA

I THINK IT REALLY WORKS! IT HELPS YOU FOCUS!

ΑT

I FOUND THE TRUE ME.

SG



## Superbrain Yoga -A Research Study-

By Dr.D. Ramesh, MDS

s Master Choa Kok Sui says, 'the Body is a living battery that requires constant recharging. This is done through different means, especially through the transference of Life Energy'. One of the simplified techniques is MCKS Superbrain Yoga which energizes and activates the Brain. Superbrain Yoga gradually awakens the latent powers within us while involving internal alchemy.

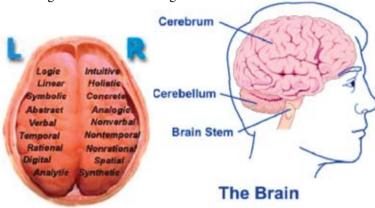
### FUNCTIONAL ANATOMY OF THE BRAIN

The Human Brain has the following parts.

- i. Cerebrum
- ii. Cerebellum
- iii. Brain Stem, consists of Pons, Medulla Oblongata

Each has its own functions.

The cerebrum, which does the functions like, thinking, learning, creativity, five senses, memory, emotion, problem solving, and decision making.



The cerebellum, receives messages from most of the muscles in our body. Then it communicates with other parts of the brain and then sends messages about movement and balance, back to our body.

The brain stem, which regulates the heart rate, breathing, swallowing, blinking, digesting and more, it controls the basic functions of the brain.

The right and left hemispheres of the brain appear to produce different brain functions.

The left hemisphere is active in linear, logical, practical, rational and time oriented activities.

The right hemisphere seems to be much more spatial, creative, analogical, holistic and non-logical

The brain, a masterpiece of God's creation, has an inherent electrical potential, which is generated within itself and distributed throughout the Body

## METHODS OF STUDYING THE BRAIN FUNCTION

Activities of the brain can be studied through the use of

- X-Rays
- EEG (Electro-encephalogram)
- CT scans (Computerized Tomography)
- MRI Scan (Magnetic Resonance Imaging)
- PET scans (Positron Emission Tomography)

## **BRAIN WAVES**

The electrical potential generated by the brain is measured by specialized equipment called "Electro-encephalograph".

The EEG shows four types of patterns which are called the "Brain Waves"

These waves are rhythmic in nature.

They occur independently on each side of the brain.

In certain instances, both sides of the brain waves are in synchronization.

## SYNCHRONIZATION OF BRAIN WAVES

During meditation and deep relaxation, the left and right brain wave patterns happen together. Scientists now believe that Synchronization makes:

- Much more brain power available
- Learning large amounts of information very quick
- High Creativity
- Self Control over all emotions

## THERE ARE FOUR TYPES OF BRAIN WAVES:

i. Beta Waves

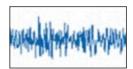
ii. Alpha Waves

iii. Theta Waves

iv. Delta Waves

Beta Waves, which occurs at a frequency of 13 to 25 cycles per second.

It is mainly seen in intense mental activity like, talking, speaking, doing work, solving problems, etc.



It is also seen during tension.

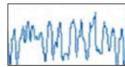
Alpha Waves, which occurs at a frequency of 8 to 12 cycles per second.

It is a state of quiet and resting alertness. It also indicates relaxation. These waves

forms at the diffuse Thalamo-cortical System in the Mid-Brain.

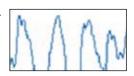
Mostly these areas have the functions of learning, memory, consciousness and abstract thinking, etc. Most intensely recorded in the occipital region of the brain.

**Theta Waves**, which occurs at a frequency of 4 to 8 cycles per second. It is commonly seen in young children. During emotional stress in adults, particularly during disappointment and frustration. It occurs in



many brain disorders. Most frequently recorded over the parietal & temporal regions of the brain.

**Delta Waves**, which occurs at the frequency of 0.5 to 4 cycles per second. It is a state of deep sleep. It is also seen in very serious organic brain diseases. It strictly occurs in the cortex region of the brain.



## BENEFITS OF ALPHA WAVES

- Benefits are more, if more Alpha waves are generated
- There is a relaxed concentrated state of mind which makes a person more alert
- There is a synchronization of the Right & Left sides of the Brain
- An increase in Alpha waves helps relieve anxiety & reduces

stress related disorders

- It strengthens the Immune System, thereby improves the Body's ability to heal faster
- This is effective for reprogramming our inner conscious levels
- It is a state of high Creativity, which leads to peak performance

# Age wise Brain Activity: as age advances the alpha wave slows down Age: 10 Age: 32 Age: 85 Age: 85

As age advances there is a marked reduction in the Alpha waves.

<u>Study 2</u> tells about the comparative effect of Superbrain Yoga in a Control subject (a person who is totally not aware of the Superbrain Yoga Exercise) and a regular practitioner, who practices the Superbrain Yoga regularly for about one year without fail.

This is a comparative study of Alpha wave activity through

## **BRAIN MAPPINGS**

Using EEG Machine Kit (a Brain-view Plus Windows based Digital Electro-encephalograph)\* and its associated software program, the Brain waves can be assessed in eight different ways, depending on the parameters that need to be studied or analyzed.

- Brain Waves
- Single Amplitude Map
- Tri Map
- Frequency Map
- Frequency Spectrum
- Progressive Amplitude Map
- Progressive Frequency Map
- Frequency Tabular Analysis

## EEG

The procedure of recording Brain Waves is done by attaching about 20 electrodes to the scalp of the patient. Microvolt level EEG signals are amplified with an analogue amplification device to volt level. It is collected by the computer. The recorded signals may be displayed on the screen. It can be printed on paper or stored on the computer and used for archival purposes later.

## displayed on the screen. It can be printed on paper or stored on to computer and used for archival purposes later. The resulting traces are known as "Electro-encephalogram" or Brain Waves

## CLINICAL TRIALS, Pilot Studies

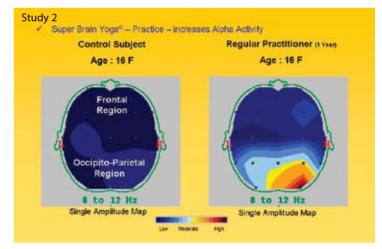
<u>Study 1</u> tells about the comparative age-wise brain activity in normal subjects

In this study we have compared the age-wise Brain activity of the young age, middle age and old age of normal individuals.

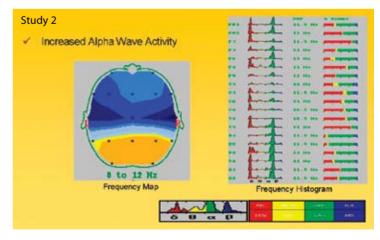
As you see in this histogram, as age advances there is a marked reduction in the Alpha waves. This is a normal phenomenon.

We also observe that Beta Waves become less active as age advances. This may be due to less intellectual activity and alertness.

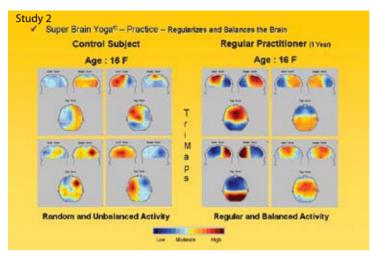
There is a generalized, diffuse slowing down of wave pattern at the older age. This slowing of waves occurs due to brain shrinkage, neuronal loss and nerve degeneration, etc.



Above and below: a comparative study of Alpha wave activity through Superbrain Yoga, between a regular practitioner and a non-practitioner.



\*)EEG – a neuro-physiological measurement of the electrical activity of the Brain, by recording from electrodes placed on the scalp. Throughout this study we have followed the international 10-20 system for placement of electrodes



Alpha wave activity especially in the Frontal & Occipito – parietal regions is high.

Superbrain Yoga, between a regular practitioner and a non-practitioner (control subject).

Observe there is a uniform increase in Alpha wave activity throughout the Brain in this Frequency map program

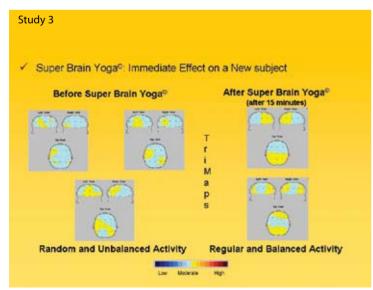
Alpha wave activity especially in the Frontal & Occipito
– parietal regions is high, well appreciated in the Single
Amplitude Map program

The Tri Maps illustrate that in the control subject, the Brain wave activity is un-coordinated and random in nature

Whereas there is a regular, coordinated activity of the Left & Right sides of the Brain in a regular practitioner of Superbrain Yoga, indicating Balance & Synchronization of Brain waves.

<u>Study 3</u> tells about the immediate effect of doing Superbrain Yoga in a subject who is performing this exercise for the first time ever.

For this study we choose a subject who was unaware about Superbrain Yoga.

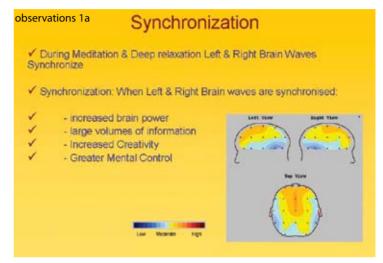


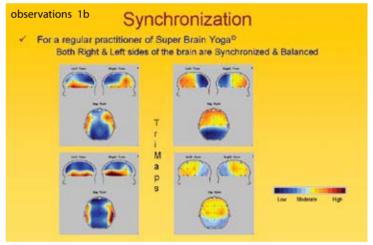
After 15 minutes of Superbrain yoga we recorded a significant increase in brain wave activity, Especially alpha waves.

The subject was appraised about the technique in detail and then asked to perform the same.

After an interval of 15 minutes we recorded the brain waves again & found significant increase in brain wave activity, especially Alpha Wave activity.

We also observe that, by doing this exercise Brain waves have improved their coordination and balance between the right and left sides.





## OBSERVATIONS (pictured above)

- 1.Observe, the generalized increase in overall Brain activity, especially seen in this Frequency Map & Tri Map
- 2. Observe, there is a generalized overall increase in the Alpha Wave activity (green peak waves) as seen in the Frequency Histogram.
- 3.Increase in Alpha wave activity is best appreciated over the Frontal, Parietal & Occipital regions of the Brain as seen in these Tri Maps.
- 4. This exercise also Balances the Right & Left Sides of the Brain, as seen in these Tri Maps where there is a 'Mirror image' like effect produced, achieved due to Synchronization of Brain Waves.

## BENEFITS OF SUPERBRAIN YOGA

According to our Master Choa Kok Sui

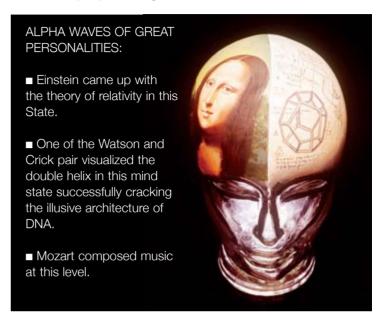
- It energizes and activates the Brain
- It increases the inner peace
- Reduces psychological stress and gives greater psychological stability
- Greater intelligence and creativity
- Regulates the sex drive
- Partial cleansing and energizing effect on chakras and auras
- Transformation of the lower energies into higher energies
- Proper functioning of the brain
- It increases the flow of pranic energies within the body
- Prolonged practice makes the practitioner in general, smarter and psychologically balanced
- Spiritual growth

## **CONCLUSION**

All these benefits are temporary in nature, if this exercise is not practiced regularly. The Superbrain Yoga must be done almost everyday to energize and activate the brain cells. To maximize these benefits, please follow simple instructions of Master Choa Kok Sui.

For further information please visit superbrainyoga.com

"All these benefits are temporary in nature, if this exercise is not practiced regularly. The Superbrain Yoga must be done almost everyday to energize and activate the brain cells."



## FURTHER RESEARCH

## RESEARCH ON ALPHA WAVES

1. 1978: Hardt JV and Kamiya J ascertained that an increase in

percentage of the Alpha waves was accompanied with an increase

in creativity and psychological efficiency, particularly in competitive

situations. "Anxiety change through electroencephalographic alpha feedback seen only in high anxiety subjects." Science. 1978 Jul 7;201(4350):79-81.

2. Watson in 1978, observed increase in Alpha waves had a long-term

improvement of memory functioning, speed of information, processing, perceptiveness and decision-making ability.Conceptmaking or problem-solving.

Aust Fam Physician. 1978 Oct;7(10):suppl 2-3

- 3. 1993: Hardt and Gale found out that an increase in the percentage of Alpha waves causes a significant increase of flexibility in creating ideas and images, which constitute the basis of problem solving. Assessment of frontal lobe functioning in schizophrenia and unipolar major depression. Psychopathology. 1993;26(2):76-84.
- 4. 1994: Crawford et al. ascertained that in persons characterized by better durable attention, fewer errors and more

efficient decision making, greater than standard increase in high frequency Alpha waves in the left brain hemisphere occurs during concentration. The oculomotor neural integrator uses a behavior-related coordinate system.

J Neurosci. 1994 Nov;14(11 Pt 2):6911-

5. Klimesch W.: Good performance is related to

increase in alpha power. EEG alpha and theta oscillations reflect cognitive and memory performance: a review and analysis. Department of Physiological Psychology, Institute of Psychology, University of Salzburg, Hellbrunnerstr. 34, A-5020, Salzburg, Austria.

6. M. Doppelmayr, , W. Klimesch, et.al.; Alpha power is selectively related to intelligence. Alpha wave power is related to the ability to process semantic information. EEG alpha power and intelligence Department of Physiological Psychology, Institute of Psychology, University of Salzburg, Hellbrunnerstr. 34, A-5020 Salzburg, Austria

7. Eugenia Chan: The use of complementary and alternative medicine (CAM) in pediatrics has become widespread. Parents of young children with developmental and behavioral problemssuch as attention-

deficit hyperactivity disorder (ADHD) are particularly drawn to CAM interventions to avoid or decrease use of psychotropic medications. The role of complementary and alternative medicine in attention-deficit hyperactivity disorder. Journal of Developmental & Behavioral Pediatrics, Feb. 2002

## RESEARCH ON SYNCHRONIZATION OF BRAIN WAVES

1. 1958: Garroute and Aird found that in 75% of the symmetrical EEG locations for both brain hemispheres, Alpha waves were characterized by high levels of synchronization.

Studies on the cortical pacemaker: synchrony and asynchrony of bilaterally recorded alpha and beta activity. Electroencephalogr Clin Neurophysiol Suppl. 1958 May;10(2):259-68.

2. 1973: Banquest (later Levine et al. too) uncovered significantly higher synchronization of Alpha waves in both hemispheres of people immersed deeply in meditation.

A study of retention of knowledge of neurosciences information.

J Med Educ. 1973 Sep;48(9):867-9.

3. 1974: Fehmi determined that increasing the synchronicity of Alpha waves between

many points of the cortex was effective for significant improvement in many psychological functions:

concentration, perceptiveness, self-awareness, intuition, calm and overall life satisfaction. The effects of electrode placement upon EEG biofeedback training: the monopolar-bipolar controversy. Int J Psychosom. 1989;36(1-4):23-33.

- 4. Klimesch W.: During mental activity, when different neuronal networks may start to oscillate with different frequencies, each network may still oscillate synchronously Memory processes, brain oscillations and EEG synchronization. University of Salzburg, Department of Physiological Psychology, Austria.
- 5. 1999: Research of Neubauer et al. suggests that, for more intelligent people, synchronization occurs in the high frequency Alpha waves under the influence of stimuli Sleep problems in the elderly. Am Fam Physician. 1999 May 1;59(9):2551-8, 2559-60. Review

Research on Alpha Wave activity in Eminent Personalities

It is noted in the history books that, when Alpha Wave power increases, many scientists and other great thinkers have had their flashes of insight.