

Super Brain Yoga ~ A Research Study

By Dr. Ramesh, MDS

As 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

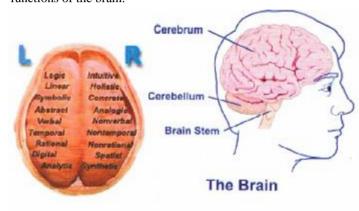
- ii, Cerebellum
- iii. Brain Stem, consists of Pons, Medulla Oblongata

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

- \bullet X-Rays
- EEG (Electro-encephalogram)
- CT scans (Computerized Tomography)
- MM 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 Wayes"

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:

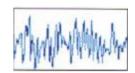
- i. Beta Waves
- ii. Alpha Waves
- iii, Theta Waves
- iv, Delta Waves

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.



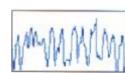
Alpha Waves, which occurs at a frequency of 8 to 12 cycles per second, It is a state of quiet and resting alertness, It also indicates relaxation, These waves forms at the diffuse Thalamo-cortical System in the Mid-Brain, Mostly these



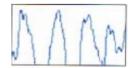
areas have the functions of learning, memory, consciousness and abstract thinking, etc, Most intensely recorded in the occipital region of the brain.

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 ore alert.
- § There is a synchronization of the right & Left sides of the brain.
- § An increase in Alpha waves helps relieve anxiety and reduces stress related disorders.
- § It strengthens the immune System, thereby improves the ability of the body to heal faster.
- § This is effective for reprogramming our inner conscious levels
- § It is a state of high Creativity, which leads to peak performance.

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
- Tn 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.

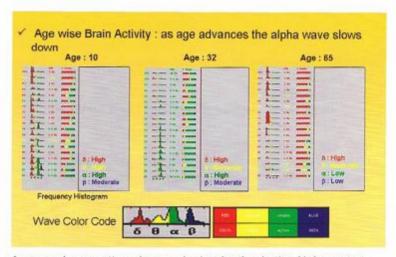
The resulting traces are known as "Electro-encephalogram" or Brain Waves

CLINICAL TRIALS, Pilot Studies

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

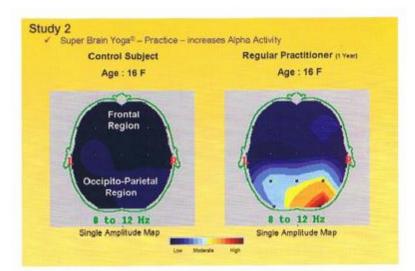
In this study we have compared the age-wise Brain activity of the young age, middle age and old age of normal individuals, As you see in this histogram, as age advances there is a marked reduction in the Alpha waves. This is a normal phenomenon. We also observe that Beta Waves become less active as age 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.

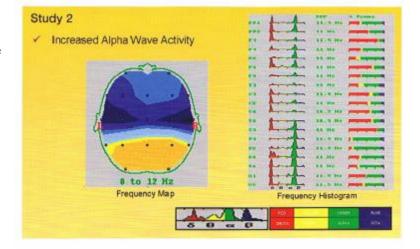


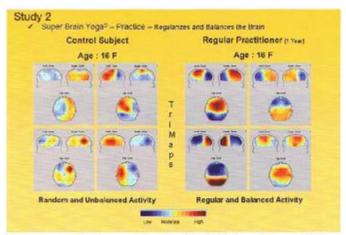
As age advances there is a marked reduction in the Alpha waves.

<u>Study</u> 2 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.



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





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

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

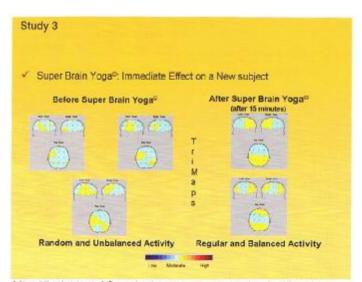
Observe there is a uniform increase in Alpha wave activity throughout the Brain in this Frequency map program Alpha wave activity especially in the Frontal & Occipito parietal regions is high, well appreciated in the Single Amplitude Map program

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,

 $\underline{Study\ 3}$ 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.

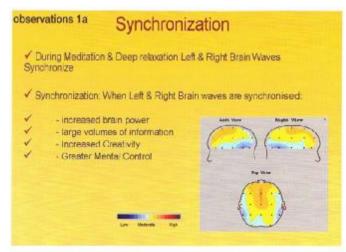


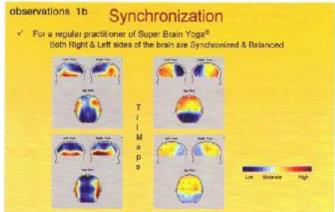
After 15 minutes of Superbrain yoga we recorded a significant increase in brain wave activity, Especially alpha waves.

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)

Observe, the generalized increase in overall brain activity, especially seen in this Frequency map & Tri Map.

Observe, there is a generalized overall increase in the Alpha Wave activity (green peak waves) as seen in the Frequency Histogram

Increase in Alpha wave activity is best appreciated over Frontal, Parietal & Occipital regions of the brain as seen in these Tri Maps.

This exercise also Balances the Right & Left Sides of the Brain, as see in these Tri Maps where there is a 'Mirror Image' life effect produced, achieved due to Synchronization of Brain Waves.

BENEFITS OF SUPERBRAIN YOGA

According to our Master Choa Kok Sui

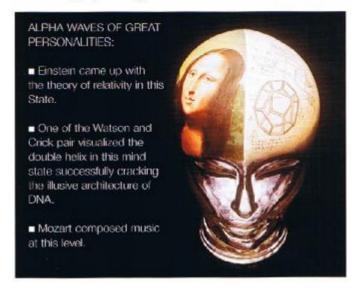
- It energizes and activates the Brain
- It increases the inner peace
- Reduces psychological stress and gives greater psychological stability
- Greater intelligence and creativity
- Regulates the sex drive
- Partial cleansing and energizing effect on chakras and auras
- Transformation of the lower energies 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 superbrainvoga.com

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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 problemsolving..

Aust Fam Physician. 1978 Oct;7(1 0):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.

 1. 993;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 behaviorrelated coordinate system. J Neurosci. 1994 Nov;14(11 Pt 2):6911-23

- 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, 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):25g-68.
- 2. 1973: Banquest (later Levine at 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 monopoler-bipolar controversy. nt J Psychosom. 1 989;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.