

## **Effect of ‘Bhootashuddhi Kriya’ on Alpha EEG of Males**

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### **Abstract:**

Present study attempted to study the effect of ‘Bhootashuddhi Kriya’ on Alpha EEG of collage going non yogic students. 10 students has been selected from Dev Sanskriti Vishwavidyalaya, Haridwar. in the ages of 18 to 25 through accidental sampling, were made to practice of ‘Bhootashuddhi Kriya for a duration of 20 days with predefined instructions by the yoga instructor for 30 minutes daily. One group pre-post research design was followed in the study. The readings were taken before and after administering yogic practices .The result showed a significant change as Bhutashuddhi Kriya positively increase the Alpha EEG of the Males students, at 0.01 level of confidence.

**Keywords:** Bhutashuddhi Kriya, Alpha EEG.

**Introduction:** In modern World stress / life style related diseases like anxiety, neurosis, depression, schizophrenia etc. are quite common. Tension is the central theme of all psychosomatic diseases. This tension is due to the strain of life that an individual carries. Any disorder of this homeostatic by any factor would ultimately lead to the development of stress related therapies have been unable to answer the question of prevention and management of stress.

Due to the advancement of technology and the information overload, the situation is grave (Pandya, 2003). We can hardly find anyone around, whose mind remains balanced and are always free from tension stress and worries. Stress and anxiety have become major killers in our developed world. Particularly the youth, the college-going students are losing their health and

well-being. Good health is one of the greatest resources for vitality, creativity and wealth, while poor health in contrast significantly drains the aforementioned. Hence it is necessary for the students education to introduce a complete Yoga, Asana, Pranayama & mediation technique through, which they can save themselves from common disorders and stress free life. Stress contributes in the causation of many psychosomatic, autoimmune and immunosuppressive disorders (Ader, Cohen & Felten, 1995). Physical, thermal stress was found to impair performance in specific psychometric tests and modify brain electrical activity. Also, mental stress related to working overtime was found to deplete attention and reduce executive functions, with increased feelings of confusion (Proctor et al., 1996).

During the practice of Bhootshuddhi Kriya, we take deep breath, and due to this long inhalation, sufficient oxygen goes into the lungs. Total lungs capacity can be used at the time. A proper gaseous exchange results into better oxygen supply to all the cells as well as the neurons. Originated blood goes to the brain through this process. Functioning of the brain improves, and a reduction in the level of stress can be measured. Pranayama improves the brain activities (Nagendra, 1997).

Bhootshuddhi Kriya is the practices of life Pranayama. Bhootshuddhi Kriya is the based on Pranayama which involves breathing exercise with chanting of the word Soham. The word 'Bhoot' means Panchamahabhoota (Five elements) manifested their five elements with defined qualities and natures, they are (1) Earth (Prithvi) (2) Water (Jal) (3) Fire (Agni) (4) Air (Yayu) (5) Ether (Aakash)". (Saraswati Swami Niranjanaanada, 2002) here 'shuddhi' means internal and external body purification and, in the words '*Kriya*' means there are two syllables. One is *Kri*; the other is 'Ya'. *Kri* means you do your work from morning until you go to bed. In addition, "Ya" means the conscious body. kriya yoga is one of the easiest and most powerful methods for practicing

mediation and awakening the spiritual consciences in man.” (Saraswati swami satyananda, 2004). Bhootshuddhi kriya is the part of Path of divine life ( Marshi Arivind ,2007).

Electroencephalography (EEG) is the measurement of electrical activity produced by the brain as recorded from electrodes placed on the scalp. Alpha waves are electromagnetic oscillations in the frequency range of 8–12 Hz arising from synchronous and coherent (in phase / constructive) electrical activity of thalamic pacemaker cells in the human brain. They are also called Berger's wave in memory of the founder of EEG.(Brazier, 1970). With humans electrodes can't generally be implanted in the brain; so recordings are made from the surface of the scalp, a procedure known as electroencephalography (EEG). Human brain emits four types of waves . These are four types. (a.) Alpha, (b.) Beta. (c.) Delta and (d.) Theta.

### **Methodology:**

**Sample & Sampling:** 10 students are selected by accidental sampling.

**Tool:** Alpha EEG Biofeedback machine is used to measure the Alpha EEG level of males students.

### **Technique of Bhootshudhi kriya**

Sr. No	Kriya	Mantra	Chakra	Round	Duration /minute
1	Kanishtha Kriya	Om Kavchaya hum:	Ajna	60	4
2	Jeshtha Kriya	Om Karatalkar	Muladhar	15	1
3	Shreshtha Kriya	Om Astraye Phatha	Swaadhisthan	30	2
4	Sirvsheshtha Kriya	Om Shikaya Vashatha	Manipura	45	3
5	Kanishtha Kriya	Om Kavchaya hum:	Anahat	15	1

6	Shreshtha Kriya	Om Karatakar	Vishudha	30	2
7	Sirvsheshtha Kriya	Om Astraye Phatha	Ajna	45	3
8	Paramkanishtha Kriya	Om Shirses Swaha:	Sahastral	60	4
9	Meditation		Sahastral		5
10	Om chanting		Each chakra		2
11	Naddishodhan Pranayama		Each chakra		3

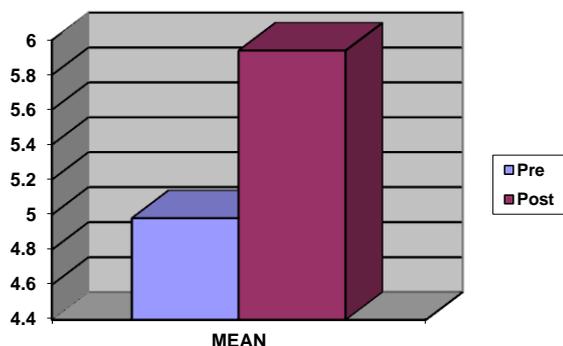
**Objectives:** To Study the effect of Bhootashuddhi Kriya on Alpha-EEG of the males .

**Hypothesis:** The practice of Bhootashuddhi Kriya is a positively increase the Alpha EEG of the males.

**Result:**

Table:

Test	MEAN	N	SD	SEM	R	SED	t-value	Significant level
Pre	4.98	10	0.87	0.29	0.24	0.115	8.42	0.01
Post	5.94	10	0.79	0.26				



### **Interpretation & Discussion:**

Above table shows that the students were better improved in their alpha EEG level. The significance difference between two mean were 0.115 which was significant at 0.01 levels. The value of t-test is 8.42 which are significant on the level of 0.01, so the directional hypothesis is accepted. Its means, Bhootashuddhi Kriya positively increases the Alpha EEG of the males students.

The mechanisms of action of the psychic, somatic and visceral centers of our brain are closely interconnected by efficient anatomical and physiological links. However, the psychic centers are more closely associated with somatic centers than the autonomic ally controlled visceral centers. The study shows a significant change in the Alpha EEG level of the subjects. EEG measures minute electrical activity in the brain in the form of waves. The frequency of brain activity waves has been shown to alter according to the state of consciousness and state of mind the subject is in. Beta activity is normally noted in the awake working state.

In the practice of Bhootshuddhi Kriya there is a stage of meditation. This is a state of energized. In the state of meditation the whole body becomes painless, respiration becomes occasional, and the heart rate slows down,. (Swami Abhedananada, 2000). Meditation affect the pineal gland produce such hormones that affect brain and endocrine system. (Koar, 1995). Meditation was found to improve concentration and memory The reduction in oxygen consumption and autonomic relaxation were reported following meditation on meaningful syllable Om (Telles, Nagarathna & Nagendra, 1995).

During this practice there was a significant reduction in oxygen consumption by 32.1 percent when compared to an equal period of supine rest in *shavasan*, which produced a 10.1 percent reduction in oxygen consumed. The practice also increased the depth of respiration with reduction in breath frequency, suggesting physiological relaxation (Telles, Reddy & Nagendra, 2000).

This Kriya releases of physical, mental and emotional tension, occurs due to a process of purification in the subtle body. The person can feel the flow of inner energy and love subtle expression filing by this practice, as like divine sound , divine light, and divine vibration, sweating, trembling and energetic (Govtam C, 2003).Bhootshuddhi Kriya(BSK) Involves all the key compound of yoga . Yoga is in light practices which is very important to get Physical, Mental spiritual benefit.

Bhutashuddhi Kriya positively increase the Alpha EEG of the students (Kakad,Dushant,et al.2012) Bhutashuddhi Kriya releases mental disturbances such as stress, anxiety, and so on. The practice improves the clarity of thinking and increase in concentration of the mind prepares the individual for meditation and gives a stress free life.

It is hoped that this study will advance the understanding about the cognitive and psycho-physiological effects of Bhooshuddhi Kriya. This may also suggest possible divine & allied application of this practice.

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