

## **EFFECT OF FREE HAND EXERCISES AND YOGIC PRACTICES ON WORKING WOMEN.**

### **Abstract**

The purpose of the study was to analyse the influence of physical exercises and yogic practices on working women in Gwalior. We determined whether the health of psycho-somatic Asthmatic Patients and low back pain patients problems would be improved by the selected free hand exercises and yogic practices. It is concluded that the practice of yoga has long term benefits. The improved lung function, the proper method of breathing and the psychological quietness help the chronic sufferer of asthma. Yogasanas also reduce low back pain. The decreases in the pain is mainly on account the effect of yoga. There was also significant increase in the low back flexibility.

### **INTRODUCTION**

If the philosophy is intellectual investigation, the Yoga is particularized experience. In Philosophy, the logical faculty is desired but in Yoga, devotional wisdom and purity of internal realization are the assets of the adherents. In Philosophy cognitive element reigns supreme but in Yoga, along with cognitive elements, affect and cognitive elements are also primarily needed. However it dose not mean that Yoga and Philosophy are poles apart because in Yoga that effort of wisdom for reaching the truth is inherent which evolutes into the spiritual experience and not that devotion which negates the intellect. Moreover, the Indian Philosophy is not only conceptual and linguistic analysis, it is rather that system of

thought which is formulated by logical thinking attained through intuitive experience.

Physical fitness, enhanced sexuality and personal achievement have become the primary goals of yoga practice. In modern time people become busier due to the fact of hectic life style –dependency on readily made food, non-indulgence in physical activities, choosing sedentary tools for happy home etc. have become common in every sphere of human existence. Stressful lives have been invited instead of active life style. There are seven main causes of stress which are commonly discussed as under:

Patanjali enumerates the means of yoga as the eight limbs or ashtanga yoga or stages of yoga for the quest of the soul. They are

1. Yama – Universal moral commandaments.
2. Niyama – Self purification by discipline
3. Asanas – Stretching static posture
4. Pranayama – Rhythmic control of breath
5. Pratyahara – Withdrawal and emancipation of the mind from the domination of senses and exterior objects.
6. Dharana – Concentration
7. Dhyana – Meditation

8. Samadhi – A city of superior consciousness brought about by profound meditation, in which the individual aspirant becomes one with the object of his meditation.

Education is a series of experiences that enable an individual to better his understanding of new experience. Physical education is an indispensable part of education. Among the various activities offered in physical education, 'Asanas' is an important activity mainly for the development of flexibility. In modern ages, due to laziness and the help of fast working machines etc., human beings are suffering due to lack of health. Health is the nation's wealth. Most of them are afraid of modern drugs and want to preserve health through exercises.

The body is a suitable vehicle, with which, the soul can undergo the divine journey. "I must be worthy of life, I am being well fed, well exercised and well rested. Let me be well", must be the slogan of every body.

### **Objectives of the Study**

To determine whether the health of psycho-somatic Asthmatic Patients and low back pain patients disorders can be improved by the free hand exercises and yogic practices.

## **Yoga Practice**

Yoga provides linkage between body, mind and soul. Yoga start from cleanliness of body, and mental though process, word and action of a man. Yoga makes the mind go deep into the subconscious level and purifies even the accumulated evil thoughts.

Yoga is divided into four main groups, namely Bhakti yoga, Karma yoga, Raja yoga and Ganga yoga. Among these Bhakti yoga and Karma yoga are practiced by persons who have the natural gift by birth. Gnaga yoga is practiced by the highly gifted persons in their matured life. Raja yoga is the technique that can be practiced by all normal human beings. It was formulated stage-wise by Patanjali yogi, who is said to be the father of Raja yoga.

India is a great country with very ancient heritage and highly organized civilization. Hence, the whole world is expecting us to guide the world, in the proper way. Our Rishis and yogis are the molders of the civilization. They have formulated the way of life, method of living, and finally the aim to be attained in human life. They devised the method of attaining the link between body, mind soul and universal soul. This method is called yoga.

## **Physical Exercise**

Free hand exercise is any organized activity that involves continuous participation. Exercise occupies a leading role in keeping a person fit. It will be easier to adjust one's life in terms of stress, diet,

sleep and so on. Without proper exercise, according to plato, lack of activity destroys the good condition of every human being. Exercise builds and maintains physical fitness. If you make an investment in exercise it makes you conscious of other health habits. According to Cicero “Exercise can preserve something of our early strength even in old age”.

#### Exercises to do before meditation

1. Neck Exercises
2. Arm Rotations
3. Upper Body Twists
4. Hip Rotations
5. Bending and stretching Exercises
6. Knee Exercises
7. Feet Exercises
8. You may do these exercises one to three times before meditation.

#### **Exercise to be done after meditation**

1. Shaking
2. Jumping
3. Eye Rotations
4. Bending and Stretching Exercises

5. Upper Body Twists
6. Hip Rotations

## **METHODOLOGY**

### **Data Collection**

To carry out this investigation, working women from Gwalior city, who had low back pain and asthma, were selected. Thirty subjects, among the isolated, were selected at random. Their age ranged from 35 to 45 years. The subjects were screened by a competent Medical Officer who made a thorough medical examination to ascertain the possible causes for back pain and asthma and isolated those subjects who could not suffer any contra-indication owing to administration of yogasanas and physical exercises. The yogasana treatment for four weeks was carried out, one hour per day. in the evening, from Monday to Saturday. A questionnaire was administered to the prospective subjects, before and after the treatment of four weeks. The answers were collected and analyzed. Sit and Reach Test was conducted to find out the back flexibility.

Wright's Peak Flow Meter and Nose Clip were used to find out the peak flow rate for asthmatic patients.

Peak Flow meter is a simple instrument, very useful to assess the air-ways function. The patient takes a deep breath in, and tries to blow out of forcefully as possible, through the mouth piece of the instrument. The indicator of the instrument moves fast and indicates the rate of maximum flow of air or while breathing out. The reading is expressed as liter perm minute.

To find out the level of low back pain low back symptoms questionnaire was used. Sit and reach test also conducted and measured. The initial and final measurements of the flexibility of spine, of the women, were recorded. The scores of each questionnaire were counted and compared.

## **RESULTS AND DISCUSSION**

The purpose of the study was to find out the influence of physical exercises and yogic practices, for a period of 8 weeks training, on low back pain and asthma among the working women.

The obtained data were statistically analyzed to assess the significance, at 0.05 level of confidence. The required t-value was obtained from the Table, for the level of significance. Since the data to be compared, and the degree of freedom, chosen was  $N_1 + N_2 - 2$ , the 't' ratio test was employed. The mean of the initial test, of low back pain patients back flexibility, was 18.93; and standard deviation 3.11: final mean score was 22.16; and standard deviation 3.09.

The null hypothesis was put the test by subject the difference in the Means of the subject to statistical analysis of t-ratio, as recommended by Clarke and Clarke.

$$t = D_m / s D_m$$

't' ratio was calculated to test the significance of the difference between the pre-test and post-test findings, of sit and reach test, for the low back patient, before and after yogasanas.

As the obtained 't' value of 4.0345 was greater than the table value, at 0.05 level of 1.96 the null hypothesis was rejected and the difference was found to be significant. This means that the practice of yoga is very

effective in the treatment of low back pain. The obtained results, pertaining to this study, has been presented in the following Table.

**Table 1 : Computation of ‘t’ ratio for the sit and reach test scores, before and after physical exercises yogic practices, of working women in Gwalior. ( low back pain).**

	Means	Difference between the Mean	Standard error of the difference between the Means	‘t’ – ratio
Before Yogasanas	17.37	3.9	0.82	4.76
After Yogasanas	21.27			

$$df = N_1 + N_2 - 2 \quad 30 + 20 - 2 = 58 \quad \text{Table values} = 1.96$$

Since the obtained ‘t’ value was greater than the table value, so it is significant.

**Table 2 : Computation of ‘t’ ratio for (range of pain) Questionnaire test scores, before and after physical exercises and yogasanas of working women in Gwalior.**

	Means	Difference between the Mean	Standard error of the difference between the Means	‘t’ – ratio
Before treatment (or) Yogasanas	13.47	2.04	0.83	2.46
After treatment (or) Yogasanas	11.43			

$$df = N_1 + N_2 - 2 \quad \text{Table values} = 1.96$$



Since the obtained 't' value was greater than the table value, so it is significant.

**Table 1 : Computation of Mean, Standard Deviation, Standard error of the Mean and 't' ratio for the peak flow rate of Asthma Patients before and after treatment.**

	Means	Difference between the Mean	Standard error of the difference between the Means	't' – ratio
Before treatment (or) Yogasanas	3.80	1.22	0.189	6.455
After treatment (or) Yogasanas	5.02			

$$df = N_1 + N_2 - 2$$

$$30 + 30 - 2 = 58$$

$$\text{Table values} = 1.96$$

Since the obtained 't' value was greater than the table value, so it is significant.

## CONCLUSION

It is concluded that the practice of yoga has long term benefits. The improved lung function, the proper method of breathing and the psychological quietness help the chronic sufferer of Asthma to live a trouble free and meaningful life. Yogasanas also reduce low back pain. The decreased in the pain is mainly on account of the effect of yoga. There was also significant increase in the low back flexibility, for low back pain patients, and peak flow rate for asthma patients. Severe cases took more time for cure.

Yogagasanas reduced low back pain. The decrease in the paid proved that the obtained results were mainly on account of the effect of yoga. There was significant increase, in the low back flexibility, for low back pain patients, and peak flow rate for asthma patients. Severe cases took more time for cure.

Moreover, yogasanas is the common cause of improvement in low back pain and asthma patient, the rate of improvement differs. It works much faster in some cases than others. This is due to many reasons like travelling distance to their work place, years of work experience, as well as the complaint and nature of treatment and job.

## **RECOMMENDATIONS**

- If the practice of yoga is initiated, at an early age, in susceptible and asthma prone individuals, it can prevent the occurrence of irreversible damage to pulmonary function. As it is difficult to find out the susceptible, it is recommended that yoga can be introduced as a system of practice in school level.
- The same study can be done for the male patients.
- A similar study of yogasanas can be done on other disorders of the respiratory system.
- Asthma is widely prevalent in society and practicing yogasanas is easy and can be done at any neat place, at any age, it is recommended that findings of this study may be periodically propagated through public media as a service to society.
- Similar studies may be undertaken for urban and rural areas.

- The study may be done for lower or higher age groups, who are not working.
- The similar study can be conducted on various other types of disease.

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