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## Effect of six-week yogic training on vital capacity among female college going students

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### Abstract

The purpose of the study was to determine the effect of Yogic Training on Vital Capacity among female college going students of IGIPSS (University of Delhi). 30 female students were equally assigned to the two groups by using random sampling procedure i.e. experimental & control group. Experimental group was administered Yogic Training and control group was given no training of an experimental period of six week. The age of the subjects ranged between 17 to 22 years. Pre-test data were collected from both the groups before giving six week of Yogic Training and also Post-test data were collected from both the groups at the end of six week of Yogic Training. Descriptive statistics i.e. Mean, Standard Deviation and t-test were used as statistical technique for the present study. After statistical analysis, finding show significantly effects on Vital Capacity of female college going students.

**Keywords:** Yoga, asana, pranayama, vital capacity

### Introduction

Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual. Yoga is good for your posture and structural balance (leading to mental balance); it promotes flexibility and suppleness, strength and stamina, tones the internal organs, improves concentration, teaches you how to breathe more effectively facilitates relaxation and calms the mind.

Yoga has eight elements and asana is a third element of yoga. Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. Asanas activate the functions of various organs. Asanas are performed to keep the body flexible, agile and young. The Yoga Postures or Asanas exercise every part of the body, stretching and toning the muscles and joints. Asanas work not only on the body's frame but on the internal organs, glands and nerves as well, keeping all systems in radiant health. Pranayama is a fourth element of yoga. It is composed from two Sanskrit words: Prana means 'vital force' and Yama means 'to control'. Pranayama helps in controlling all the functions of breathing. Pranayama is the art of breath manipulation and energy balance. Thus pranayama is a series of techniques that aim at stimulating and increasing the vital energy in the body.

The scientific nature of the yogic practices was first revealed when Late Swami Kuvalyananada started his scientific research in the field of yoga in 1924. . He showed that a logical and scientific explanation could be possible for traditionally described techniques of various Yoga practices.

Physiology is the scientific study of the normal function in living systems. A sub discipline of biology, its focus is in how organisms, organ systems, organs, cells, and biomolecules carry out the chemical or physical functions that exist in a living system. On a more practical level, yoga is a means of balancing and harmonizing the body, mind and emotions. This is done through the practice of Asana, Pranayama, Mudra, Bandha, Shatkarma and Meditation, and must be achieved before union can take place with the higher reality. The application is yogic techniques is considered beneficial for health and cure of certain disease for improving vital capacity and general efficiency of individual is different fields. Vital Capacity is the greatest volume of air that can be expelled from the lungs after taking the deepest possible breath.

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Yoga is being utilized from the most fundamentally personal to the social and educational implication of the society as a whole.

**Statement of the Problem**

The purpose of the study was to investigate the effect of six week yogic training on vital capacity among female college going students of IGIPSS, University of Delhi.

**Methodology**

Thirty female college going students, with ages ranging from 17 to 22 years students of IGIPSS (University of Delhi), B-Block, Vikas Puri, Delhi-110018, were randomly selected as subjects. The subjects were divided into two groups, one was Experimental Group and another was Control Group using random method. Experimental group was allotted Yogic Training consisted of 15 subjects and control group also consisted of 15 subjects. Vital Capacity selected as variable for the study. Data was collected before the start of the yogic training (i.e. pre-test) and the end of the yogic training (i.e. post-test). The data on pre-test and post-test of all the selected subjects have been analysed by

**Results**

**Table 1:** Descriptive Statistic (Mean and Standard Deviation) of Vital Capacity for Control and Experimental Group

Variable	Control		Experimental	
	Pre	Post	Pre	Post
Vital Capacity	1866.66±406.49	1866.66±377.33	1720±374.54	1940±375.68

Table-1 depicts the mean & standard deviation Values (Pre and Post data) of vital capacity of Experimental Group & Control Group. The Mean ± SD values of Vital Capacity (cc), for pre control group was 1866.66±406.49 and post

using the descriptive statistics i.e. Mean, Standard Deviation and t-test.

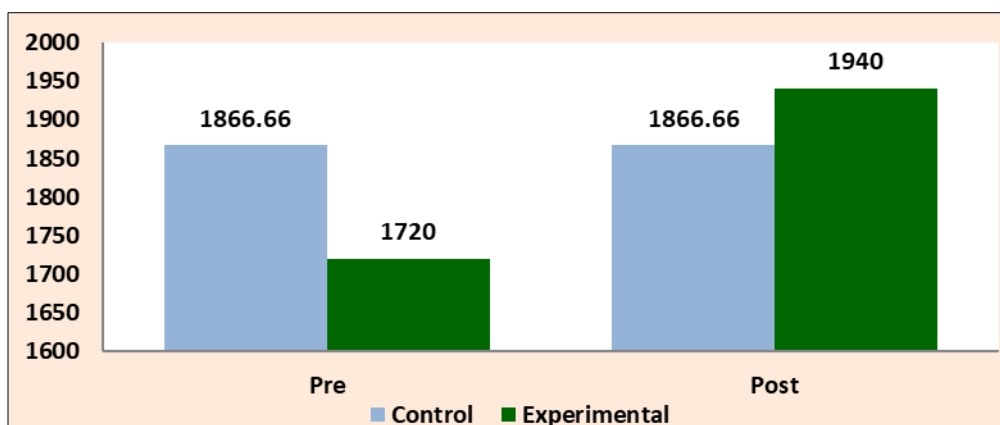
**Training protocol**

Periods of six week yogic training, experimental group of 15 subjects were assembled in Yoga Lab. at IGIPSS (University of Delhi), B-Block, Vikas Puri, Delhi-110018. Yogic training was executed from 8:00 AM onwards for 45 minutes, for five days in a week and Saturday & Sunday has been observed as weekly off. Control group did not participate in the yogic training. The subjects of experimental group was taken yogic training of selected Asanas (Sarvangasana, Halasana, Matasayasana, Bhujangasana, Salbhasana, Dhanurasana, Naukasana, Paschimuttanasana, Ustrasana, Chakrasana, Tadasana, Savasana) and pranayama (Anuloma-Viloma Pranayama, Suryabhedhi Pranayama). All subjects were take part in pre-test and post-tests.

**Tool Used**

Vital capacity was recorded to nearest C.C by using dry Spiro-meter.

control group was 1866.66±377.33. The Mean ± SD values of Vital Capacity (cc) for pre experimental data was 1720±374.54 and post experimental data was 1940±375.68.



**Fig 1:** Graphical representation of the Pre/Post Mean scores on Vital Capacity of Control and Experimental Group

**Table 2:** Descriptive and comparative analysis of the Pre and Post-test on Vital Capacity of Experimental Group

Variable	N	t	df	Sig (2-tailed)
Vital Capacity	15	5.284	14	.000

\*significant at 0.05 level

Table-2 depicts the ‘t’ values of the paired sample t-test for pre and post test scores Vital Capacity, which shows that there is a significant effect of six week yogic training on vital capacity of female college going students as the value is found to be 5.284 for Vital Capacity, which is significant at 0.05 level.

**Table 3:** Descriptive and comparative analysis of the Pre and Post-test on Vital Capacity of the Control Group

Variable	N	t	df	Sig (2-tailed)
Vital Capacity	15	.000	14	1

\*significant at 0.05 level

Table-3 depicts the ‘t’ values of the paired sample t-test for pre and post test scores of Vital Capacity which shows that there is a no significant effect of six week yogic training on Vital Capacity of female college going students as the value is found to be .000 for Vital Capacity, which is no significant at 0.05 level.

### Discussion of Findings

The results have revealed that the yogic training improves Vital Capacity. The result suggest that regular yogic practice can be effectively used in improving lung capacity and prevention of some major lungs dieses i.e. Asthma, congestion etc.

### Conclusion

From the above result it can be concluded that the yogic training are significantly helps to enhance the Vital Capacity of the female practitioners of age range between 17-22 years and may be also helpful to enhance the vital capacity of practitioners of other age groups as well.

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