

## Effect of yogic practices on vital capacity

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### Abstract

The present study was undertaken primarily to assess the effectiveness of yogic practices on vital capacity. For the purpose of the study, 30 middle aged men aged between 35 and 40 years (mean  $\pm$  S.D.  $37.5 \pm 1.5$  years) were randomly selected. The selected subjects for the present study were divided into two groups, namely yogic practice group and control group. The control group was not given any training. The experimental group practiced yoga, weekly six days i.e. Monday to Saturday, between 6.00 A.M. to 8.00 A.M., for a period of twelve week. The results of this study showed that there was a significant difference between yogic practice group and control group on vital capacity. Moreover, the result of the study also shown that there was a significant increase in vital capacity after the yogic practice when compared with the control group.

**Keywords:** Yogic Practices, Vital Capacity

### Introduction

Yoga has also been described as wisdom in work or skillful living amongst activities, harmony and moderation. "Yoga is not for him who gorges too much, nor for him who starves himself. It is not for him who steps too much, nor for him who stays awake. By moderation in eating and resting, by regulation in working and by concordance in sleeping and waking, yoga destroys all pain and sorrows".

Yoga is an ancient philosophical and religious tradition which is thought to have originated in India in at least 1000 B.C. It refers to a large body of values, attitudes and techniques whose primary objective is the pursuit of enlighten or self-knowledge. The word yoga is probably derived from the Sanskrit word "Yuj" which means to "unite" or "connect" and, in the higher levels of yoga, this is often said to mean the experience of union of the individual self with the universal.

### Methodology

The present study was undertaken primarily to assess the effectiveness of yogic practices on controlling Vital capacity. For the study, 30 middle aged men aged between 35 and 40 years (mean  $\pm$  S.D.  $37.5 \pm 1.5$  years) were randomly selected. The selected subjects for the present study were divided into two groups, namely yogic practice group and control group. The control group was not given any training. The experimental group practiced yoga, weekly six days i.e. Monday to Saturday, between 6.00 A.M. to 8.00 A.M., for a period of twelve week. Test administration one day prior to the commencement of training and one day after the completion of training.

### Vital Capacity

#### Purpose

To measure the power and strength of the respiratory muscles and condition of the airways.

#### Equipments used

Spirometer and potassium permanganate were used for measuring the vital capacity.

#### Testing Procedure

The wet spirometer was placed at a height, which is comfortable for the subjects to stand and perform the test. The subject forcefully inhaled and exhaled twice before the test. The subject was cautioned not to allow the air to escape through the nose or around the mouthpiece. The subject after completion of a deep inspiration, bend slightly forward to blow the air through the mouthpiece into the wet spirometer. The mouthpiece was sterilized with potassium permanganate before used by each subject.

#### Scoring

The tester observed the needle and recorded the maximum reading in milliliters (Clarke, 1979).

#### Vital Capacity

The data collected prior to and after the experimental period on vital capacity for yogic practice group and control group were analysed and presented in Table 1

**Table 1:** Analysis of Covariance on Vital Capacity of Yogic Practice Group and Control Group

	Yogic Practice Group	Control Group	Source of Variance	Sum of Square	df	Mean Square	'F' ratio
<b>Pre- test Mean</b>	2557.33	2574.67	<b>Between</b>	2253.33	1	2253.33	1.004
<b>S.D.</b>	53.515	40.332					
<b>Post-test Mean</b>	2574.67	2568.67	<b>Between</b>	270.00	1	270.00	0.096
<b>S.D.</b>	57.677	47.64					
<b>Adjusted Post-test Mean</b>	2583.956	2559.378	<b>Between</b>	4373.72	1	4373.72	19.27*

\* Significant .05 level of confidence.

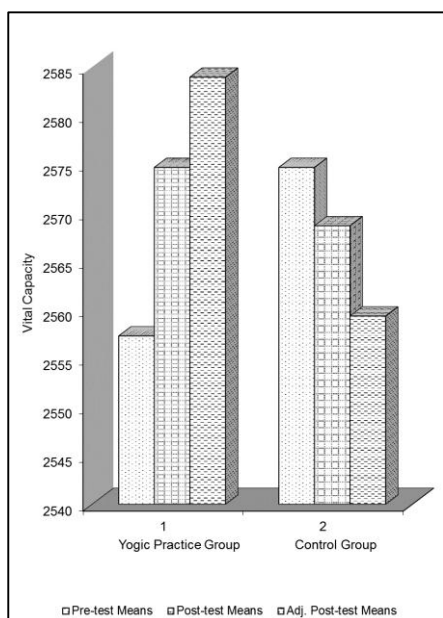
(The table values required for significance at .05 level of confidence with df 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively).

Table - 1 showed that the pre-test mean values of vital capacity for yogic practice group and control group were 2557.33 ± 53.515 and 2574.67 ± 40.332 respectively. The obtained 'F' ratio value of 1.004 for pretest scores of yogic practice group and control group on vital capacity was less than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The post-test mean values for vital capacity for yogic practice group and control group were 2574.67 ± 57.677 and 2568.67 ± 47.64 respectively. The obtained 'F' ratio value of 0.096 for post-test scores of yogic practice group and control group was lesser than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The adjusted post-test mean values of vital capacity for yogic practice group and control group were 2583.956 and 2559.378 respectively. The obtained 'F' ratio value of 19.27 for adjusted post-test scores of yogic practice group and control group were greater than the required table value of 4.21 for significance with df 1 and 27 at .05 level of confidence.

The mean values of yogic practice group and control group on vital capacity were graphically represented in Figure - 1.



**Fig 1:** Bar Diagram Showing the Mean Values of Yogic Practice Group and Control Group on Vital Capacity

**Result**

The results of this study showed that there was a significant difference between yogic practice group and control group on vital capacity. Moreover, the result of the study also shown that there was a significant increase in vital capacity after the yogic practice when compared with the control group.

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