



**RESEARCH ARTICLE**

**Impact of Yogic Exercises on Strength Development of College Boys**

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**ABSTRACT**

*The Purpose of the study was to find out the effect of yogic exercises on strength development of college boys. For the present study 60 male students of Saraswati Degree College, Hathras (UP), were selected randomly as the subjects for the study. The age of the subjects ranged between 17–22 years. The variables selected for the present study were yogic training (independent variable), strength (dependent variable). For the study pre test-post test randomized group design, which consists of control group (30 subjects) and experimental group (30 subjects) were used. The data were collected through the pre test, before training and post test, after eight weeks of yogic exercises training. For comparing pre and post test means of experimental and control groups, descriptive analysis and Analysis of Co-Variance (ANCOVA) were used and the level of significance was set at 0.05 level of confidence. The result of the study showed that there was significant difference between pre and post test (experimental group) of strength.*

**Key words:** Yogic Training, Strength, College' Students

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**INTRODUCTION**

Over the past few years there has been a boom in strength coaching in its varied forms, from Cross work and lifting to a lot of outside, natural Movement-based coaching. The need of the twenty first century is not solely to realize medical excellence in solidifying the patients however additionally a lot of significantly to forestall folks from changing into sick. In Indian culture, yoga has historically been a vicinity of daily routine that is supposed for attaining healthy life. Yoga was originally concerning non-secular development and mind-body awareness practices aimed toward cultivating a better level of consciousness. Strength and suppleness were merely welcome facet effects of the follow. Yoga aims to achieve the unity of mind, body, and spirit through Exercise, Breathing, and Meditation. This can be accomplished through a series of connected poses (yoga), connecting the breath with the movement, and clearing the mind through meditation. The exercises of Yoga square measure designed to place pressure on the organ Systems of the body, thereby increasing its potency and total health. The respiratory techniques square measure supported the conception that breath is that the supply of life within the body. These systems prepare the body and mind for Meditation, creating it easier for college students to realize a quiet mind and be free from everyday stress. Regular daily follow of all 3 components of this structure of Yoga manufacture a transparent, bright mind and a powerful, capable body. Strength is that the ability to act against resistance and the requirement of strength is incontestable in most of routine activities furthermore as in sports. Yogasanas strengthen muscles by holding poses for Associate in nursing extended amount of your time and respiratory into them. At a similar time, rather than mistreatment weights and machines to develop strength, we have a tendency to square measure mistreatment our own body mass and weight, that is occasionally more difficult than dumbbells and gymnasium weights. All yoga poses involve deep muscle tissue, permitting United States of America to feel powerful, toned and, eventually stronger. With disciplined and regular follow of yoga, we are going to see the distinction in our body, because it becomes a lot of toned, firm and stronger. During this article an effort has been created to look at the advance occur in strength following Yoga follow among the faculty going males.

### OBJECTIVE OF THE STUDY

To find out the effect of yogic practices on Strength development of college males.

### METHODS AND SUBJECTS

Sixty volunteers of Saraswati Degree College, Hathras ranging from 17-22 years of age were act as subject for the study. Subjects were divided into two groups i.e experimental and control. In order to find out the effect of eight week of yogic training on strength i.e shoulder Strength, abdominal strength and leg strength push-ups, Sit-Ups and Squat respectively pre test was taken prior to the yogic training and post test was taken after eight weeks of yogic training. Selected Yoga Asanas and Pranayam were given to subjects on 6 days i.e. (Monday to Saturday) sessions per week. Subjects used to practice Pranayama and Suryanamaskar 10 min/each and different Asanas (yoga postures) for 30 minutes and lastly supine relaxation in savasana (corpse pose) for 10 minutes respectively.

### STATISTICAL ANALYSIS

Data was analysed by SPSS software and expressed as mean  $\pm$ SD, Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05. Differences in means were considered statistically significant when the two-tailed *P* value was  $<0.05$ .

### FINDINGS AND CONCLUSION

The findings pertaining to descriptive statistics, Analysis of Co-Variance (ANCOVA) as well as post hoc test for the 60 male students of Uttar Pradesh has been presented in table 1, 2 and 3.

**Table 1:** Post Test Descriptive Statistics of Strength of Different Groups

Variables	Groups	N	Mean	SD
Sit-Ups	Experimental	30	41.23	15.87
	Control	30	31.03	6.25
Squat	Experimental	30	25.88	1.46
	Control	30	14.48	1.45
Push-Ups	Experimental	30	33.03	11.30
	Control	30	26.43	6.69

Table 1 reveals that the mean and standard deviation of the post test scores of Sit-Ups of Experimental and Control group is  $41.23 \pm 15.87$  and  $31.03 \pm 6$ , Squat is  $25.88 \pm 1.46$  and  $14.48 \pm 1.45$  and Push-Ups is  $33.03 \pm 11.30$  and  $26.43 \pm 6.69$  respectively.

**Table 2:** Analysis of CO-Variance (ANCOVA) Results for the Post Test Data

SIT-UPS					
Source	Sum of Square	Df	Mean Square	F	Sig. (p-value)
Pre_Sit UPS	8544.76	1	8544.76	609	.000
Treatment Group	662.44	1	662.44	47.21	.000
Error	799.73	57	14.03	-	-
Corrected Total	10006.9	59	-	-	-
SQUAT					
Pre Squat	23788.68	1	23788.68	1.55	.000
Treatment Group	870.49	1	870.49	56.70	.000
Error	874.74	57	15.35	-	-
Corrected Total	25534.18	59	-	-	-
PUSH-UPS					
Pre Push-ups	5089.0	1	5089.0	1.64	.000
Treatment Group	392.59	1	392.59	127.05	.000
Error	176.13	57	3.09	-	-
Corrected Total	5657.73	59	-	-	-

\*significant at 0.05 level

F- 0.05 (1, 57)

Table 2 reveals that F-value for within group is significant at 5% level, as p-value (0.000) is lesser than 0.05. Thus it is evident that there is significant difference in performance between the experimental and control groups of Yogic exercises on college males.

**Table 3:** Analysis of Least Significant Difference post hoc test with regard to different Strength Variables

<b>Sit-Ups</b>			
<b>Treatment Group(I)</b>	<b>Treatment Group (I)</b>	<b>Mean Difference (I-J)</b>	<b>Sig. (P-Value)</b>
Experimental Group	Control Group	6.724	.000
Control Group	Experimental Group	-6.724	.000
<b>Squat</b>			
Experimental Group	Control Group	7.729	.000
Control Group	Experimental Group	-7.729	.000
<b>Push-Ups</b>			
Experimental Group	Control Group	5.133	.000
Control Group	Experimental Group	-5.133	.000

\*Significant at 0.05 level

Table 3 reveals that p-value for the mean difference between experimental and control group of Sit-Ups, Squats and Push-Ups is 0.000 which is less than 0.05 and hence there is significant difference between adjusted means of experimental and control groups.

### DISCUSSIONS OF THE FINDING

The findings of the research paper explore the significant development in strength through given yoga module. The possible reasons for this development may be: In Hath yoga we hold the poses for a period of time, which is the quickest way to develop the Leg, Shoulder and Abdominal strength without any specific equipments. Moreover in yoga we involve whole body rather than specific group of muscles like we do in Gymnasium. Suryanamaskar and dynamic yoga exercises are very effective for strength building upper body as well as in lower extremities.

### CONCLUSION

On the basis of findings of the study, the following conclusions may be drawn-

1. Significant improvements in Abdominal Strength were evident through Yoga.
2. Significant improvements in Leg Strength were evident through Yoga.
3. Significant improvement in Shoulder and Arm Strength were evident through Yoga.

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