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## Effect of specific yogic exercise and physical exercise on selected physical fitness variables of football players

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### Abstract

In modern competitive world, people are always affected by physical physiological and psychological dis-orders. Yoga is an ancient system of self-development, which offers a holistic approach to the mankind through its ideology and techniques. Yoga is the immensely useful for promoting total health. On the basis of available literature, knowledge and techniques. Yoga is the first system in the world to recognize the connection and the interaction between the body and the mind. Regular practice of asana even for thirty minutes a day will keep an individual quite fit and makes him hale and healthy and brings a harmonious development of the whole body. The purpose of the study has been designed to analyze the effect of selected yoga asana and physical exercise football players' thirty male students were selected from Mahajana higher secondary school Mettupalayam and were imported yoga training and physical exercise for 8 weeks except on Sundays. Body weight and flexibility was measured with the reliable equipment namely weighing machine, sit and reach box, skin fold caliper and stop watch. Prior to and at the end of training period all subjects were tested on body weight, flexibility, abdominal muscular endurance, and body composition. The significant-deference between pretest and posttest was compared using 't' test, at 0.05 level. The data collected from the experimental group on selected variables on flexibility, abdominal muscular endurance, body composition and body weight was statistically examined using the 't' ratio. The level of significant was fixed at 0.05 level of confidence. Practicing asana had significantly increased flexibility. Practicing physical exercise had significantly decreased the abdominal muscular endurance. Practicing asana and physical exercise had no significantly body composition. Practicing asana and physical exercise had significantly body composition in triceps.

**Keywords:** flexibility, abdominal muscular endurance

### Introduction

Yoga is an ancient discipline. The word yoga is derived from the Sanskrit root "yuj" meaning "to yoke" or to link or to integrate. It is one of the six orthodox systems of Indian philosophy, the influence of which has been wide spread among many other schools of Indian thought. The word yoga means union that is to say Union between the body, mind and individual spirit to universal sprit or god. The yoga sutras of Patanjali described the goal of yoga as kaivalya which means either the static of oneness or independence.

### Methodology

The purpose of the investigation was to find out the effect of specific yogic training and physical exercise on selected physical fitness variables of body composition of football players. Thirty students from various classes in Mahajana higher secondary school Mettupalayam served as subject for this study. The subjects selected were football students.

### Training Program

The subjects were told everything about the test. The training programmed for the group was to undergo six asana for a format of five repetitions per day. The following six yoga asana were carefully selected for training to improve the flexibility and reduce body weight. Yoga and physical exercise was given in the morning and evening time respectively for a period of 30 minutes on both session.

### Statistical Techniques

The data collected from the experimental group on selected variables on flexibility, abdominal

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muscular endurance, body composition and body weight was statistically examined using the 't' ratio. The level of significant was fixed at 0.05 level of confidence.

**Results and Discussion**

The analysis of the data pertaining to the study has been presented in this chapter thirty subjects aged from 14 to 17 years from the Mahajana higher secondary school Mettupalayam students were taken. The data was collected initially and after the training from the experimental group on the selected variables. Analysis of variance followed by analysis of "t" test was employed, to find out if any significant differences existed on the selected variables the

experimental group. Sophisticated instruments were not much in this study for obtaining the data. The level of significance was fixed at 0.05 level of confidence which was considered adequate for the purpose of this study. The mean performance of flexibility and body weight before and after the experimental period is graphically presented. The data were analyzed statistically by compiling analysis of "t" for all the variables. The obtained "t" ratios were tested for significance at 0.05 level of confidences. Significant differences at level of confidence were seen in all the variables such as flexibility, abdominal muscular endurance, Body Composition, and body weight in favor of experimental group.

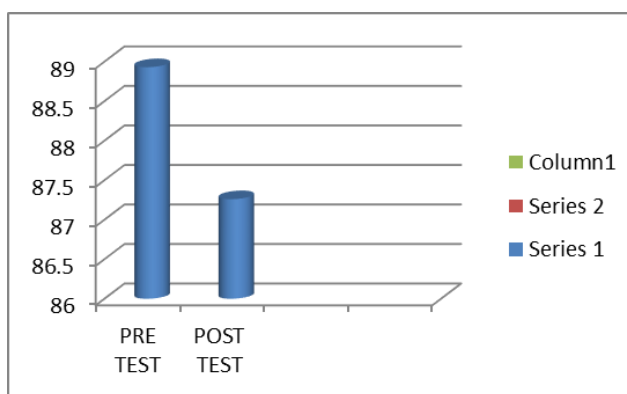
**Table 1:** Computation of Mean, Standard Deviation of the Body Weight Experimental Group

S. No	Name of the Test	Mean	Standard Deviation	Mean difference	't' value
1	Pre-test	88.93	6.69	22.78	0.99
2	Post-test	87.26	6.43		

Required Table values for 2, 28 degrees of freedom 2.05 at 0.05 level

It is observed from the table 1 that there is no significant difference on Body Weight It is seen that the mean of the pre-test 88.93 and post-test 87.26 the standard deviation of the pre-test 6.69 and post-test 6.43, obtained 't' ratio is 0.99. The

table value of 't' ratio is 2.05 the obtained 't' ratio is less than the table value hence the obtained 't' ratio is no significant at 0.05 level confidence. So the hypothesis about Body Weight is not accepted.



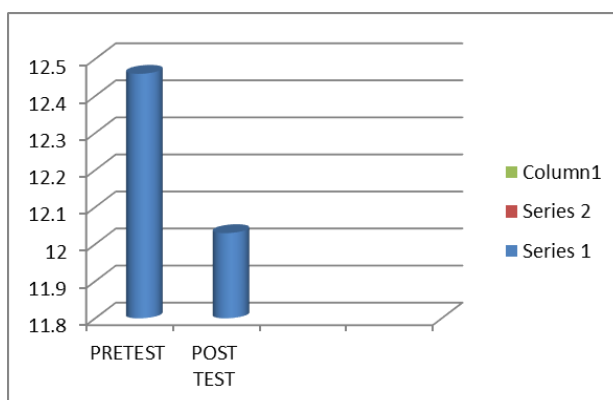
**Fig 1:** Bar Diagram Showing the Mean Difference of Pre-test and Post test of Experimental Group in Body Weight

**Table 2:** Computation of Mean, Standard Deviation of the body composition Triceps

S. No	Name of the Test	Mean	Standard Deviation	Mean difference	't' value
1	Pre-test	12.46	5.28	0.43	0.128
2	Post-test	12.03	4.47		

It is observed from the table 2 that there is no significant difference on body composition triceps. It is seen that the mean of the pre-test 12.46 and post-test 12.03 the standard deviation of the pre-test 5.28 and post-test 4.47, obtained 't'

ratio is 0.128. The table value of 't' ratio is 2.05 the obtained 't' ratio is less than the table value hence the obtained 't' ratio is no significant at 0.05 level confidence. So the hypothesis about Skin Fold Measurement triceps is not accepted



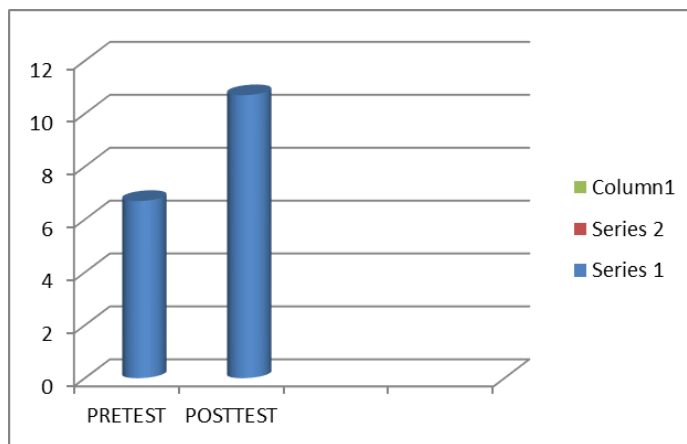
**Fig 2:** Bar Diagram Showing the Mean Difference of Pre-test and Post test of Experimental Group in body composition Triceps

**Table 3:** Computation of Mean, Standard Deviation of the flexibility

S. No	Name of the Test	Mean	Standard Deviation	Mean difference	't' value
1	Pre-test	6.9	3.84	3.8	3.8*
2	Post-test	10.7	3.95		

It is observed from the table 3 that there is significant difference on flexibility. It is seen that the mean of the pre-test 6.9 and post-test 10.7 the standard deviation of the pre-test 3.84 and post-test 3.95 obtained 't' ratio is 3.8. The table

value of 't' ratio is 2.05 the obtained 't' ratio is higher than the table value hence the obtained 't' ratio is significant at 0.05 level confidence. So the hypothesis about flexibility is accepted.



**Fig 3:** Bar Diagram Showing the Mean Difference of Pre-test and Post test of Experimental Group in Flexibility

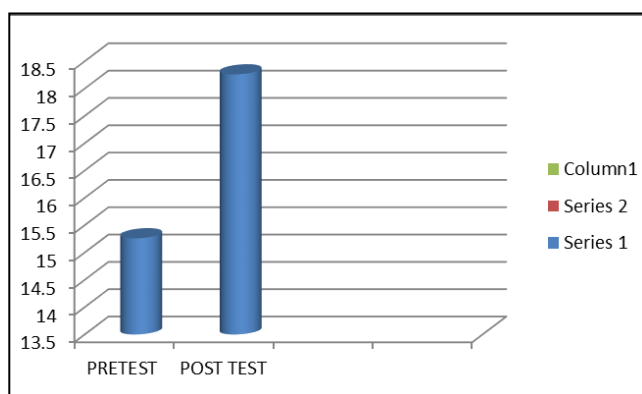
**Table 4:** Computation of Mean, Standard Deviation of the abdominal muscular endurance

S. No	Name of the Test	Mean	Standard Deviation	Mean difference	't' value
1	Pre-test	15.26	5.11	3.0	2.25*
2	Post-test	18.26	5.27		

It is observed from the table 4 that there is significant difference on abdominal muscular endurance. It is seen that the mean of the pre-test 15.26 and post-test 18.26 the standard deviation of the pre-test 5.11 and post-test 5.27 obtained 't' ratio is 2.25. The table value of 't' ratio is 2.05 the obtained 't' ratio is higher than the table value hence the obtained 't' ratio is significant at 0.05 level confidence. So the hypothesis about abdominal muscular endurance is accepted.

that there is significant difference on flexibility and reduce abdominal muscular endurance of the body weight. Hence the hypothesis has been accepted.

The finding of the study indicates that body weight of the subjects has decreased significantly due to practice of Asana and physical exercise. Therefore the study reveals that there is significant difference on body weight. Hence the hypothesis has been accepted. The results of the study a combination of increased physical activity and other lifestyle changes to a healthy diet may be needed to stem the tide of obesity.



**Fig 4:** Bar Diagram Showing the Mean Difference of Pre-test and Post test of Experimental Group in Abdominal muscular endurance

**Discussion on Findings**

The comparison of the findings of the study with hypotheses framed is summarized as follows.

The result of the study revealed that there is significant improvement on flexibility as a result of practice of asana and physical exercise. According to the hypothesis given that yogic practice would increase flexibility and physical exercise would decrease fat content the body weight. The study reveals

**Conclusion and Recommendation**

In modern competitive world, people are always affected by physical physiological and psychological dis-orders. Yoga is an ancient system of self-development, which offers a holistic approach to the mankind through its ideology and techniques. Yoga is the immensely useful for promoting total health. On the basis of available literature, knowledge and techniques, this study has been designed to analyze the effect of selected yoga asana and physical exercise on abdominal muscular endurance, body composition, flexibility and body weight of college men.

Yoga is the first system in the world to recognize the connection and the interaction between the body and the mind. Regular practice of asana even for thirty minutes a day will keep an individual quite fit and makes him hale and healthy and brings a harmonious development of the whole body. Thirty students were selected from Mahajana higher secondary school Mettupalayam and were imported yoga training and physical exercise for 8 weeks except on Sundays. Body weight and flexibility was measured with the reliable equipment namely weighing machine, sit and reach box, skin fold caliper and stop watch.

Prior to and at the end of training period all subjects were tested on body weight, flexibility, abdominal muscular endurance, and body composition. The significant-difference between pre-test and post-test was compared using 't' test, at 0.05 level.

### Conclusion

The following conclusions are drawn based on the findings of the study

1. Practicing asana had significantly increased flexibility.
2. Practicing physical exercise had significantly decreased the abdominal muscular endurance.
3. Practicing asana and physical exercise had significantly body composition Skin Fold Measurement Triceps.

### Recommendations

The following recommendations are made on the basis of the result.

1. Similar study may be conducted on wider samples.
2. Similar study may be conducted by using physical, physiological and psychological variables.
3. A study on the effect of yoga asana training on different terrains may be conducted.
4. Similar study may be conducted on different age groups.
5. Similar study may be conducted on female subjects.

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