



# ISOLATD AND COMBINED EFFECT OF ENDURANCE TRAINING AND YOGIC PRACTICES ON CARDIO RESPIRATORY ENDURANCEAMONG FOOTBALL PLAYERS

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## ABSTRACT

The main purpose of this study is to find out the effect of endurance training and yogic practice on cardio-respiratory endurance of football players. The scope of study was to 60 students from Scott Christian college, Nagercoil, Tamilnadu, India. The age of students varied from 17-23 years. The study was delimited to endurance training, yogic practices and cardio-respiratory endurance and to six (6) weeks training programme only. Subjects were administered nine minute (9) run and walk test to measure the Cardio-respiratory Endurance before and after the endurance training and yogic practices programme of six weeks. Cardio-respiratory Endurance will be tested and measured through standard procedure with the help of expert. The present study were examined by employing by applying analysis of variance as well as analysis of covariance with regard to three experimental groups and one control group to find out the inter-group variability to allow for the comparison between initial and final scores and to effect adjustments in final or terminal scores which allowed for difference in same initial variables. Conclusions 1. This might be due to the fact that endurance training might be helped to increases the working capacity of heart and lung. 2. This might be due to the fact that yogic practices might be helped to increases the working capacity of heart and lung.3.Finally, researcher concluded that combined training has more significant effect on cardio-respiratory fitness of football players.

**Key words:** Endurance Training, Yogic practices, Cardio respiratory endurance.

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## INTRODUCTION

The contemporary history of the world's favorite game spans more than 100

years. It all begins in 1863 in England, when rugby football and association football branched off on their different courses and



the Football Association in England was formed - becoming the sport's first governing body.

Endurance exercise is traditionally viewed as the primary means of increasing aerobic capacity. Resistance exercise, in contrast, is not typically viewed as a means for improving cardio respiratory endurance. The absence of cardio respiratory adaptation may be explained by the fact that a session of resistance exercise has been shown to correspond to an oxygen uptake of only 36% to 45% of  $Vo_{2max}$ . These values are lower than what is commonly recommended to elicit improvements in aerobic capacity. An alternative explanation is that augmentation of peripheral skeletal muscle strength does not influence cardio respiratory performance in young and middle- aged individuals because they possess normal leg strength values (Booth, F. W., & Baldwin, K. M, 1996).

Yoga has been practiced for thousands of years, and whilst many different interpretations and styles have been developed, most tend to agree that the ultimate goal of yoga is to achieve liberation from suffering. Although each school or tradition of yoga has its own emphasis and practices, most focus on bringing together body, mind and breath as a means of altering energy or shifting consciousness.

Cardiovascular endurance, or aerobic fitness, is how well your heart and lungs can supply the oxygen you need while you exercise at medium to high intensity. If you have good cardiovascular endurance, you can exercise at medium intensity for a long time (and high intensity for a while) before it makes you tired.

## STUDY & MATERIAL

### Purpose

The main purpose of this study is to find out the effect of endurance training and yogic practice on cardiorespiratory endurance of football players.

**Objectives:** i) To find out the effect of endurance training on cardio-respiratory endurance of football players. ii) To find out the effect of yogic practices on cardio-respiratory endurance of football players. iii) To find out the effect of combined training of football players. iv) To find out the cardio-respiratory fitness of football players.

### Significance

i) The study might be helpful to know the cardio-respiratory function of football players. ii) This study might be helpful to the coaches, physical education teacher to adapt this type of training for the development of cardio-respiratory level. iii) The Study might be helpful in improving the healthy physiological functions of the students. iv) The study might be helpful the students for selecting various games and Sports, which requires cardio-respiratory Endurance. v) The findings of this study might be helpful in preparing endurance training programme for the development of cardio-respiratory.

### Hypothesis

(i) It is hypothesized that endurance training will be effect on cardio-respiratory fitness of football players. (ii) It is hypothesized that yogic practices will be effect on cardio-respiratory fitness of football players. (iii) It is hypothesized that combined training will be effect on cardio-respiratory fitness of football players. Scope: i) The study was delimited to the 60 students from scott Christian college Nagercoil, Tamilnadu. ii) The age of students varied from 17-21 years. iii) The study was delimited to cardiorespiratory fitness only. iv) The study was delimited to endurance training exercises, yogic practices only. v) The study was delimited to six (6) weeks training programme only. vi) The study was delimited to 60boys subjects only.

## METHODOLOGY

### Sources

The study was conducted to find out the Effect of endurance training and yogic

practices on cardio-respiratory fitness of college men football players. For this present study selected subjects from Scott Christian college Nagercoil, Tamilnadu, India. Selection: For the present study Twenty (60) subject's boys were selected randomly from Scott Christian college of Nagercoil, Tamilnadu, India. Their age ranges varied from 17 to 21 years.

#### Administration of test

After the selection of the subjects from administered nine minute (9) run and walk test to measure the Cardio-respiratory Endurance before and after the endurance training and yogic practices programme of six weeks. Cardio-respiratory Endurance will be tested and measured through standard procedure with the help of expert.

#### Experimental Design

For the present study Twenty (60) subjects were selected in simple random sampling method from Scott Christian college Nagercoil, Tamilnadu. Their age varied from 17 to 21 years. subjects belonging to three experimental groups and one control group, each comprising of 15 subjects, The experimental group underwent six weeks endurance training, yogic practice group and

combined training group for 5 (five) days in a week, for 60 (sixty) minutes each day, for the period of six weeks under direct supervision of the experimenter. The control group does not undergo any specific training during the period of six weeks apart from the physical education program.

#### Collection of Data

To find out the effect of endurance training on cardio-respiratory function the data were collected through administration of nine minute (9) run and walk test before and after the six weeks training programme. After the collection of data scores were calculated by employed "t" test statistical technique to see the significant differences.

#### STATISTICAL ANALYSIS AND INTERPRETATION OF DATA INTERPRETATION

All the data pertaining to the present study were examined by employing "t" test to find out whether any significance difference between the means of pre and post test score of the two groups before and after the period of six weeks training programme. The collected data of this study were tabulated in different tables for the statistical treatment. To see any significant difference 0.05 level of confidence was used.

#### MEANS, STANDARD DEVIATIONS AND DEPENDENT 't' TEST VALUES ON CARDIO RESPIRATORY ENDURANCE OF EXPERIMENTAL AND CONTROL GROUPS

Table - I

Tests	Endurance Training		Yogic practices		Combination of Training		Control Group	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pre test	228.33	68.94	2320.67	64.86	2294.00	108.48	2221.33	63.57
Post test	260.93	64.19	2494.67	70.49	2740.67	68.19	2230.67	64.64
<b>T - Test</b>	-15.80*		-9.80*		-11.97*		-0.68	

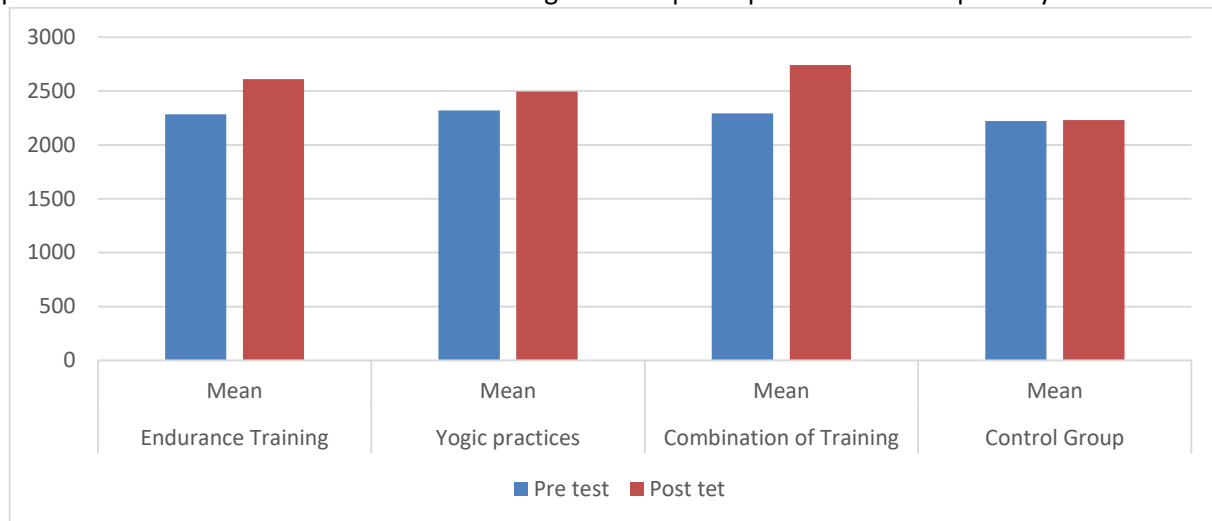
\*Significant at .05 level. The Table Value required at .05 level with sf 14 is 2.14

From the table I the obtained t-test value of endurance training, yogic practices

and combination of training programmes groups are 15.80, 9.80 and 11.97 respectively

which are greater than the tabulated t-value of 2.14 with df 14 at .05 level of confidence. This means that the endurance training, yogic practices and combination of training

programmes groups had effects on participants' Cardio Respiratory Endurance. Control group did not shown improvement on participants' Cardio Respiratory Endurance.



### SUMMARY

For the present study twenty (60) subjects were selected in simple random sampling method from the all students were divided into four equal groups of fifteen (15) football players. The experimental group was given six (6) weeks endurance training; no training was given to the control group. The data was collected before and after 6-week training programme on both groups by administered 9-minute run and walk tests. Mean Difference and, “t” test was applied between Pre-Test and Post-Test scores of Experimental and Control groups. The level of significance was set at 0.05 level of confidence. The findings of this study showed significant effect on cardio-respiratory fitness of football players after 6-week endurance training, yogic practice training and combined training programme.

### CONCLUSIONS

The present study shows that there exist significant effects on cardio-respiratory fitness of college men football players in after the endurance training of six weeks on the experimental group. The researcher found that cardio-respiratory fitness was improved

after giving the 6 weeks of endurance training yogic practice training and combined training programme.1. This might be due to the fact that endurance training might be helped to increases the working capacity of heart and lung. 2. This might be due to the fact that Yogic practices might be helped to increases the working capacity of heart and lung. 3. Finally researcher concluded that Combined training have more significant effect on cardio-respiratory endurance of football players.

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