



## Effect of Super Circuit Training on Leg Strength of College Men Players

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### Abstract

*The purpose of the study was to find out the effect of super circuit training on leg strength. To achieve this purpose of the study, thirty men players from various disciplines studying in the Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur, Tamilnadu, were randomly selected as subjects. They were divided into two equal groups. Each group consisted on fifteen subjects. Group I underwent super circuit training for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variable such as leg strength was selected as criterion variable. The super circuit training was selected as independent variable. All the subjects of two groups were tested on leg strength at prior to and immediately after the training programme by using leg lift with dynamometer. The analysis of covariance (ANCOVA) was used to find out the significant difference if any between groups on leg strength. In all the cases, .05 level of confidence was fixed to test the significance which was considered as an appropriate. The results of the study showed that there was significant difference between super circuit training group and control group on leg strength. And also it was found that there was a significant improvement on leg strength due to super circuit training.*

**Keywords:** Super Circuit Training, Leg Strength, College Men.

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### Introduction

In this modern world, promotion of physical education and sports is no longer a matter of dispute. Today, physical education and sports is considered as an international discipline because, they develop international understanding and universal brotherhood. Hence, the promotion of physical education and sports are accepted moral and social responsibilities of each nation. Physical education has a special significance, and has made unlimited contribution in the modern age it caters to the biological necessities of the men. Swami Vivekananda has stressed that "what India need today is not the Bhagwat Geetha but the football ground".

### Methodology

The purpose of the study was to find out the effect of super circuit training on leg strength. To achieve this purpose of the study, thirty men players from various disciplines studying in the Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur, Tamilnadu, were randomly selected as subjects. They were divided into two equal groups. Each group consisted on fifteen subjects. Group I underwent super circuit training for three days per week for twelve weeks. Group II acted as control who did not undergo any

special training programme apart from their regular physical education programme. The following variable such as leg strength was selected as criterion variable. The super circuit training was selected as independent variable. All the subjects of two groups were tested on leg strength at prior to and immediately after the training programme by using leg lift with dynamometer. The analysis of covariance (ANCOVA) was used to find out the significant difference if any between groups on leg strength. In all the cases, .05 level of confidence was fixed to test the significance which was considered as an appropriate.

### Analysis of the Data

The analysis of covariance on leg strength of super circuit training group and control group are analysed and presented in table 1.

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Table 1

*Analysis of covariance on leg strength of super circuit training group and control group*

Test	Super Circuit training group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
<b>Pre Test</b>							
Mean	77.80	78.07	Between	0.64	1	0.64	0.71
S.D.	0.91	0.77	Within	21.33	28	0.76	
<b>Post Test</b>							
Mean	81.20	78.20	Between	67.5	1	67.5	112.50*
S.D.	0.83	0.65	Within	16.8	28	0.60	
<b>Adjusted Post Test</b>							
Mean	81.30	78.11	Between	74.58	1	74.58	355.14*
			Within	5.68	27	0.21	

\* Significant at .05 level of confidence.

(The table values required 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 leg strength for super circuit training group and control group were 77.80 and 78.07 respectively. The obtained 'F' ratio value of 0.71 for pre test scores of super circuit training group and control group on leg strength was lesser than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence on leg strength. The post test mean values of leg strength for super circuit training group and control group were 81.20 and 78.20 respectively. The obtained 'F' ratio value of 112.50 for post test scores of super circuit training group and control group on leg strength was greater than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence on leg strength.

The adjusted post test mean values of leg strength for super circuit training group and control group were 81.30 and 78.11 respectively. The obtained 'F' ratio value of 355.14 for adjusted post test scores of super circuit training group and control group on leg strength was greater than the required table value of 4.21 for significance with df 1 and 27 at .05 level of confidence on leg strength.

The results of this study showed that there was a significant difference between super circuit training group and control group on leg strength.

### Results and Conclusions

1. There was a significant difference between super circuit training group and control group on leg strength.

2. There was a significant improvement on leg strength due to super circuit training.

### References

1. Ardy Friend Berg, The Fact on File Dictionary of Fitness, (USA: The Time Minor Publications, 1994).
2. Arnheim, Daniel D., Modern Principles of Athletic Training, (St. Louis: The Mosby College Publishing Co., 1985).
3. Bains, Jagdish, Essential of Physical Education, (New Delhi: Surjeet Publications, 2003).
4. Barrow, Harold, et al., Practical Measurement in Physical Education and Sports, (U.S.A : Lea and Febiger Publishing Company, 1998).
5. Barry L. Johnson and K. Jack Nelson, Practical Measurements for Evaluation in Physical Education, (3rd Edn.) (Delhi: Surjeet Publication, 1988).
6. Bompa, Tudor O., Training for Sports, (Champaign, Illinois: The Human Kinetics Publishers, 1999).
7. Clayne R. Jenson and Cynthia C. Hirtg, Measurement in Physical Education and Athletics, (New York: Mac Millan Publishing Co., Inc., 1980).
8. Dick, Frank W., Sports Training Principles, (Champaign : A & C Black Ltd., 1997).
9. Eugene W., Nixon M.A., An Introduction to Physical Education, (Philadelphia: W.B. Saunders Company, 1934).