



## EFFECT OF TREADMILL TRAINING WITH YOGIC PRACTICES ON SELECTED PHYSICAL AND BIO-CHEMICAL VARIABLES OF PHYSICAL EDUCATION COLLEGE MEN STUDENTS

\*N.S. Gnanavel, \*\* Dr. Mrs. A. Shenbagavalli.

\* Ph.D., Research Scholar, Dept. of Physical Education, Bharathiar University, Coimbatore.

\*\* Professor and Head, Department of Physical Education and Health Sciences  
Alagappa University, Karaikudi, Tamilnadu.

### ABSTRACT

**Background:** The purpose of the study was to investigate the effect of treadmill training with yogic practices on selected physical and bio-chemical variables of physical education college men students.

**Method:** For the present study the subjects were 60 college men from Alagappa University College of Physical Education, Karaikudi were selected randomly and their age ranged from 20 to 25 years. For the present study pre test – post test randomized group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of thirty students each and named as Group 'A' and Group 'B'. Group 'A' underwent treadmill training with yogic practices group and Group 'B' underwent no training. Speed was assessed by 50 metres run, flexibility was assessed by sit and reach method, serum albumin and serum protein was assessed by using lab test method. The data was collected before and after twelve weeks of training period. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique and the level of significance was set at 0.05.

**Result:** The findings of the present study have strongly indicates that twelve weeks of treadmill training with yogic practices have significant effect on selected physical and bio-chemical variables. Hence the hypothesis earlier set that treadmill training with yogic practices would have been significant effect on selected physical and bio-chemical variables in light of the same the hypothesis was accepted.

**Conclusion:** Significant effect of treadmill training with yogic practices was found on speed, flexibility, serum albumin and serum protein.

© 2014 Star All rights reserved.



### Keywords

**Physical,  
Bio-chemical variables,  
Physical Education Men.**

### INTRODUCTION

Physical education student's goal is to attain good health, fitness and weight loss. Running on the treadmill is an advantageous to attain the above said objectives. Running into the treadmill (electric treadmill) has many

advantages and benefits such as injury prevention, safety and comfort (Hoffman, 2011). Yoga provides one of the best means of self-improvement and attaining one's full potential. In the advanced stages of yoga, super conscious states are attained which result in a feeling of bliss, deep peace and the emergence of

psychic powers. Yoga is the oldest system of personal development encompassing body, mind, and spirit. The origin of Yoga goes back more than 5000 years (Hewit James, 1983). This valuable science developed by the ancient sages of India, and modified through generations, took many years to spread around the world. In the modern times, the value of Yoga is being increasingly recognized for general health, and its preventive and curative effects. The investigator combines the treadmill training along with yogic practices in order to find out effect physical and bio-chemical variables

### OBJECTIVE OF THE STUDY

The purpose of the study was to investigate the effect of treadmill training with yogic practices on selected physical and bio-chemical variables of physical education college men students. It was hypothesized that there would have been a significant effect of treadmill training with yogic practices on selected physical and bio-chemical variables of physical education college men students.

### METHODOLOGY

For the present study the subjects were 60 college men from Alagappa University College of Physical Education,

Karaikudi were selected randomly and their age ranged from 20 to 25 years. For the present study pre test – post test randomized group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of thirty students each and named as Group 'A' and Group 'B'. Group 'A' underwent treadmill training with yogic practices group and Group 'B' underwent no training. Speed was assessed by 50 metres run, flexibility was assessed by sit and reach method, serum albumin and serum protein was assessed by using lab test. The data was collected before and after twelve weeks of training period. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique and the level of significance was set at 0.05.

### RESULTS AND DISCUSSION ON FINDINGS

The findings pertaining to analysis of co-variance between experimental group and control group on selected physical and bio-chemical variables of physical education men for pre-post test respectively have been presented in table No.1.

Table - 1

Descriptive Analysis of Selected Physical and Bio-Chemical Variables of Both Groups

Sl.No	Variables	Pre Test Mean	SD (±)	Post Test Mean	SD (±)	Adjusted Mean
<b>TTWYPG</b>						
1	Speed	8.63	0.33	7.81	0.34	7.81
2	Flexibility	19.90	1.26	22.93	1.11	22.80
3	Serum Albumin	4.71	0.24	4.70	0.57	5.09
4	Serum Protein	6.43	0.18	7.28	0.46	7.29
<b>CG</b>						
1	Speed	8.59	0.32	8.59	0.29	8.64
2	Flexibility	19.60	4.48	20.16	4.25	20.29
3	Serum Albumin	4.70	0.57	4.74	0.35	4.74
4	Serum Protein	6.34	0.20	6.36	0.18	6.35

The above table documents the pre & post tests means, standard deviations and adjusted mean values of treadmill training with yogic practices group (TTWYPG) and control group (CG) on selected physical and bio-chemical variables of physical education men.

Table - 2

Computation of Analysis of Covariance on Both the Groups on Selected Physical Variables and Bio-Chemical Variables

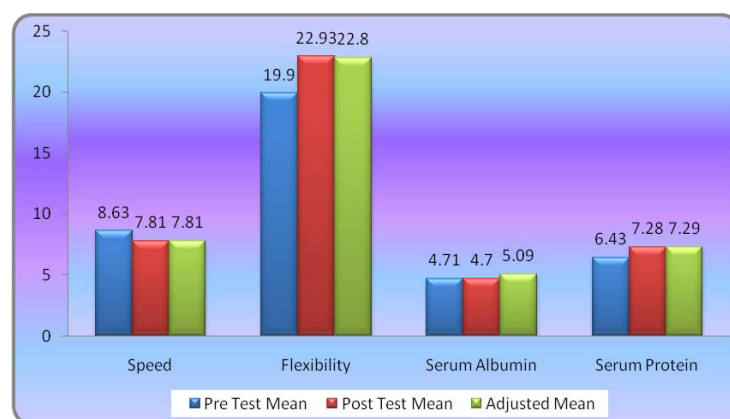
Sl. No	Variables	Source of Variance	Sum of Squares	df	Mean Square	F
1	Speed	BG	10.42	1	10.42	110.42*
		WG	5.38	57	0.09	
2	Flexibility	BG	94.69	1	94.69	45.82*
		WG	117.78	57	2.06	
3	Serum Albumin	BG	1.90	1	1.90	21.39*
		WG	5.06	57	0.08	
4	Serum Protein	BG	12.68	1	12.68	100.26*
		WG	7.21	57	0.12	

\* Significant at 0.05 level

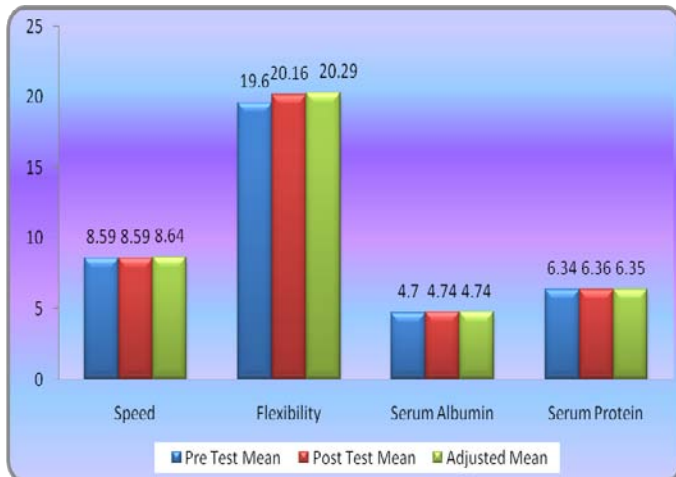
\*F 0.05 (1,57) = 4.00

Table No. 2 revealed that the obtained 'F' value for speed, flexibility, serum albumin and serum protein were 110.42, 45.82, 21.39 and 100.26 respectively was found to be significant at 0.05 level with df 1, 57 as the tabulated value of 4.00 required to be significant at 0.05 level. The findings of the present study have strongly indicates that twelve weeks of treadmill training with yogic practices have significant effect on selected physical and bio-chemical variables. Hence the hypothesis earlier set that treadmill training with yogic practices would have been significant effect on selected physical and bio-chemical variables in light of the same the hypothesis was accepted.

**Figure: 1 Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Experimental Group in relation to Physical and Bio-chemical Variables**



**Figure: 2 Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Control group in relation to Physical and Bio-chemical Variables**



## CONCLUSIONS

On the basis of findings and within the limitations of the study the following conclusions were drawn: Significant effect of treadmill training with yogic practices was found on speed, flexibility, serum albumin and serum protein.

## REFERENCES

- Barrow, M. H., McGhee, R. (1979). *A practical approach to measurement in physical education*. Philadelphia: Lea and Febiger, Edition-3<sup>rd</sup>.
- [Choi JT](#), [Vining EP](#), [Reisman DS](#), [Bastian AJ](#). (2009). Walking flexibility after hemispherectomy: split-belt treadmill adaptation and feedback control." [Brain](#). 132(Pt 3):722-33.
- Hewit James. (1983). *The Complete Yoga Book*. London: Rider and Company.
- [Hoffman MD](#) and [Donaghe HE](#). (2011). Physiological responses to body weight--supported treadmill exercise in healthy adults. [Arch Phys Med Rehabil](#). 92(6):960-6.
- Mohan, R. (2003). *Research methods in education*. New Delhi: Neelkamal Publications Pvt. Ltd.
- Neilson, N. P., Johnson, C. R. (1970). *Measurement and statistics in physical education*. Belmont California: Warsworth Publishing Company Inc.