



## Effect of Yoga on Selected Physiological Variables among Men Hypertensive Patients

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### Abstract

*The purpose of the study was to find out the effect of yoga on selected physiological variables among men hypertensive patients. To achieve the purpose of the present study, forty men hypertensive patients from Namakkal, Tamilnadu, India were chosen as the subjects and their age shall ranged from 30 to 40 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (N=40) were randomly assigned to two equal groups of twenty BP patients each. The groups were assigned as yoga group (YG) and control group (CG) in an equivalent manner. The experimental group were participated the training for a period of six weeks to find out the outcome of the training package. Blood pressure was collected from all subjects before they have to treat with the respective treatments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was applied because the subjects were selected random, but the groups were not equated in relation to the factors to be examined. Hence the difference between means of the two groups in the pre-test had to be taken into account during the analysis of the post-test differences between the means. This was achieved by the application of the analysis of covariance, where the final means were adjusted for differences in the initial means, and the adjusted means were tested for significance. To test the obtained results on variables, level of significance 0.05 was chosen and considered as sufficient for the study. The experimental group had shown significant improvement in all the selected physiological variables than the control group.*

**Keywords:** Physiological, Hypertension, Patients.

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### Introduction

Yoga poses requires one to study each pose and execute them slowly with balance and concentration. Asanas work on all the systems of the body, also making the spine and joints supple. It tones up the muscles, glands and internal organs. Yoga asanas must be executed with proper breathing. Undoubtedly, yoga contributes to spiritual growth and improves the quality of life. Apart from increased flexibility in the muscles, chronic health conditions are treated and cured through the practice of yoga. Inner peace ensues after the practice of asana and pranayama and this enables the practitioner to tread life with purpose and direction. 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. All the wonders of modern science will not bring happiness, peace of mind, health or a long life. Although wonders have been achieved in our external environment – space travel, computers, etc.- our internal environment

has been neglected. Thousands of years ago the ancient yogis turned their minds inwards and discovered their true nature. This allowed them to work out a system of body and breathing exercises which results in vitality, rejuvenation and peace of mind.

Yoga is the oldest system of personal development encompassing body, mind, and spirit. The origin of Yoga goes back more than 5000 years. 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. Yoga, a Sanskrit word for 'union', means an experience of oneness or union with your inner being (self). This union is the mind uniting with the body and breath to attain a higher level of consciousness. The integrated approach of mind and body control leads to ultimate physical health and happiness together with the achievement of mental peace and tranquility.

### Methodology

The purpose of the study was to find out the effect of yoga on selected physiological variables among men hypertensive patients. To achieve the purpose of the present study, forty men hypertensive patients from

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**Table I.** Computation of analysis of covariance of mean of yoga and control groups on systolic blood pressure

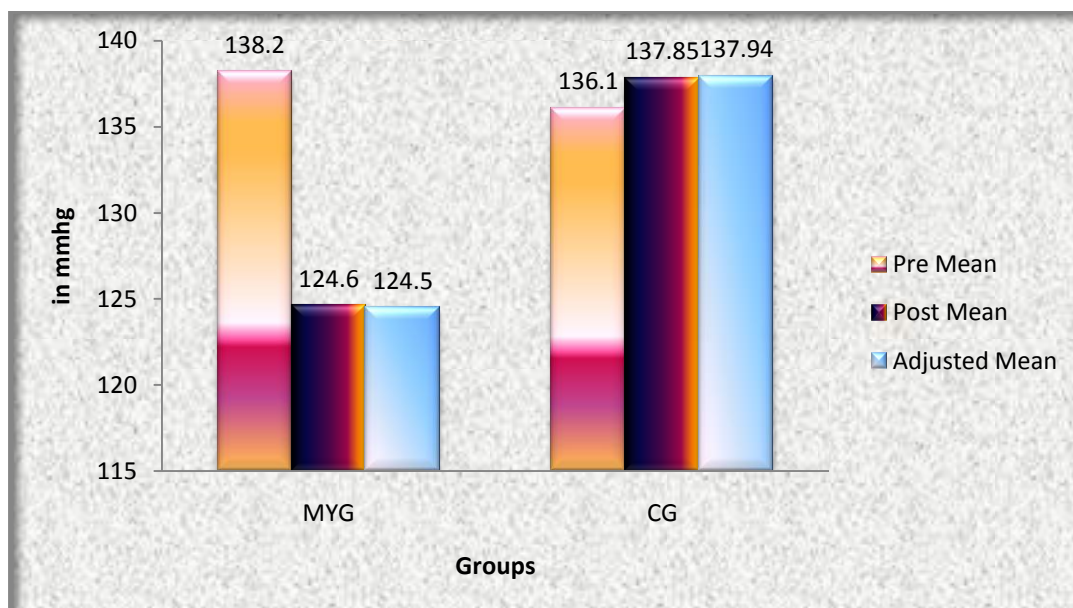
	MYG	CG	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
<b>Pre-Test Means</b>	138.20	136.10	<b>BG</b>	44.10	1	44.10	2.20
			<b>WG</b>	761.00	38	20.02	
<b>Post-Test Means</b>	124.60	137.85	<b>BG</b>	1755.62	1	1755.62	108.76*
			<b>WG</b>	613.35	38	16.14	
<b>Adjusted Post-Test Means</b>	124.50	137.94	<b>BG</b>	1709.53	1	1709.53	104.28*
			<b>WG</b>	606.55	37	16.39	

(Table Value for 0.05 Level for df 1 & 38 = 4.09 and for df 1 & 37 = 4.10 )

df- Degrees of Freedom

An examination of table - I indicated that the pretest means of yoga and control groups were 138.20 and 136.10 respectively. The obtained F-ratio for the pre-test was 2.20 and the table F-ratio was 4.09. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 38. The post-test means of the yoga and control groups were 124.60 and 137.85 respectively. The obtained F-ratio for the post-test was 108.76 and the table F-ratio was 4.09. Hence the pre-test mean F-ratio was significant at 0.05

level of confidence for the degree of freedom 1 and 38. The adjusted post-test means of the yoga and control groups were 124.50 and 137.94 respectively. The obtained F-ratio for the adjusted post-test means was 104.28 and the table F-ratio was 4.10. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 37. The pre, post and adjusted post test mean values of yoga and control groups, on systolic blood pressure are graphically represented in the figure I.

**Figure II.** Pre and post test differences of the yoga and control groups on systolic blood pressure**Table II.** Computation of analysis of covariance of mean of yoga and control groups on diastolic blood pressure

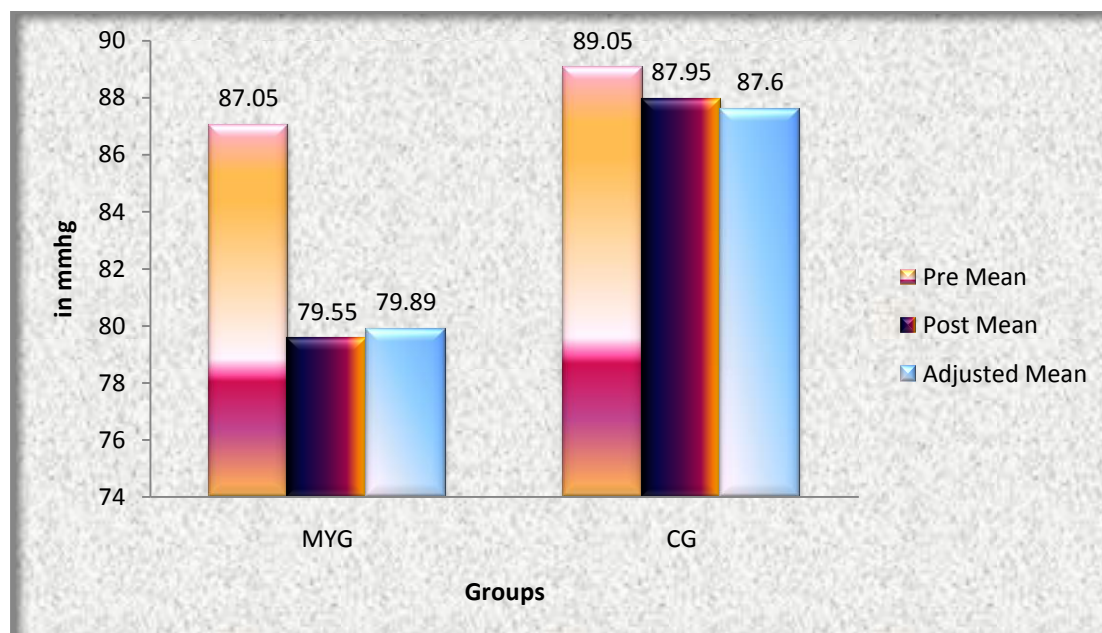
	MYG	CG	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
<b>Pre-Test Means</b>	87.05	89.05	<b>BG</b>	40.00	1	40.00	1.53
			<b>WG</b>	989.90	38	26.05	
<b>Post-Test Means</b>	79.55	87.95	<b>BG</b>	705.60	1	705.60	57.06*
			<b>WG</b>	469.90	38	12.36	
<b>Adjusted Post-Test Means</b>	79.89	87.60	<b>BG</b>	571.05	1	571.05	60.12*
			<b>WG</b>	351.39	37	9.49	

(Table Value for 0.05 Level for df 1 & 38 = 4.09 and for df 1 & 37 = 4.10)

df- Degrees of Freedom

An examination of table - II indicated that the pretest means of yoga and control groups were 87.05 and 89.05 respectively. The obtained F-ratio for the pre-test was 1.53 and the table F-ratio was 4.09. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 38. The post-test means of the yoga and control groups were 79.55 and 87.95 respectively. The obtained F-ratio for the post-test was 57.06 and the table F-ratio was 4.09. Hence the pre-test mean F-ratio was significant at 0.05 level of

confidence for the degree of freedom 1 and 38. The adjusted post-test means of the yoga and control groups were 79.89 and 87.60 respectively. The obtained F-ratio for the adjusted post-test means was 60.12 and the table F-ratio was 4.10. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 37. The pre, post and adjusted post test mean values of yoga and control groups, on diastolic blood pressure are graphically represented in the figure II.

**Figure II.** Pre and post test differences of the yoga and control groups on diastolic blood pressure

### Conclusions

Within the limitation of the present study, the conclusions were drawn.

1. The yoga group (YG) had shown significant improvement in all the selected physiological variables.
2. The experimental group had shown significant improvement in all the selected physiological variables than the control group.

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