

## EFFECT OF YOGIC PRACTICES ON HBA1C AMONG TYPE 2 DIABETIC MEN

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### Abstract

The purpose of the study was to determine the effect of yogic practices on HbA1C among type 2 diabetic men. To meet the study's goal, 40 Type 2 diabetic men were chosen at random from Chennai. The subjects were between the ages of 45 and 55. The individuals were placed into two groups of twenty each, experimental group I and control group II. The pre test was conducted on all the subjects on HbA1C. The experimental group received the training for 16 weeks and the control group received no training and was placed in active rest. Dependent 't' test and analysis of covariance (ANCOVA) were used. There was a significant difference between yogic practices group and control group on HbA1c.

**Keywords:** Yogic Practices, HBA1C, Diabetes

### Introduction

The science of yoga begins to work on the outermost aspect of the personality, the physical body, which for most people is a practical and familiar starting point. When imbalance is experienced at this level, the organs, muscles and nerves no longer function in harmony; rather they act in opposition to each other. For instance, the endocrine system might become irregular and the efficiency of the nervous system decrease to such an extent that a disease will manifest. Yoga aims at bringing the different bodily functions into perfect coordination so that they work for the good of the whole body. From the physical body, yoga moves on to the mental and emotional levels. Many people suffer from phobias and neuroses as a result of the stresses and interactions of everyday living. Yoga cannot provide a cure for life, but it does present a proven method for coping with it. Swami Sivananda Saraswati of Rishikesh explained yoga as an "... integration and harmony between thought, feeling and deed, or integration between head, heart and hand". Through the practices of yoga, awareness develops of the interrelation between the emotional, mental and physical levels, and how a disturbance in any one of these affects the others. Gradually, this awareness leads to an understanding of the more subtle areas of existence (Swami Sivanandha, 2001).

### Methodology

The purpose of the study was to determine the effect of yogic practices on HbA1C among type 2 diabetic men. To meet the study's goal, 40 Type 2 diabetic men were chosen at random from Chennai. The subjects were between the ages of 45 and 55. The individuals were placed into two groups of twenty each, experimental group I and control group II. The pre test was conducted on all the subjects on HbA1C. The experimental group received the training for 16 weeks and the control group received no training and was placed in active rest. Dependent 't' test and analysis of covariance (ANCOVA) were used.

## Results

**TABLE – I**  
**THE SUMMARY OF MEAN AND DEPENDENT ‘t’ - TEST FOR THE PRE AND**  
**POST TESTS ON HbA1C OF YOGIC PRACTICES**  
**AND CONTROL GROUPS**

	YPG	CG
<b>Pre-test mean</b>	7.47	7.71
<b>Post-test mean</b>	7.07	7.73
<b>‘t’-test</b>	8.35*	0.19
<b>Magnitude of Improvement</b>	5.35%	0.25%

\* Significant at .05 level.

(HbA1C scores in percentage)

(Table value required for significance at .05 level for ‘t’-test with df 19 is 2.09)

Table I shows the value of dependent ‘t’ test, on HbA1C between the pre and post test means of yogic practices group is 8.35. Since the obtained ‘t’-test value of the experimental group are greater than the table value 2.09 with df 19 at 0.05 level of confidence it is concluded that yogic practices group had registered significant improvement on HbA1C and in case of control group the obtained ‘t’ value 0.19 is failed to reach the significant level.

From the above table it is also observed that the magnitude of improvement (MI) of HbA1C due to the influence of yogic practices group and control group were 5.35% and 0.25% respectively. It indicates that the yogic practices had registered better percentage of improvement in HbA1C. The analysis of covariance (ANCOVA) on HbA1C of yogic practices and control group have been analysed and presented in table -II.

**TABLE – II**  
**ANALYSIS OF COVARIANCE ON HbA1C OF YOGIC PRACTICES AND**  
**CONTROL GROUPS**

	YPG	CG	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	7.47	7.71	BG	0.600	1	0.600	1.22
			WG	18.647	38	0.491	
Post Test Mean	7.07	7.73	BG	4.290	1	4.290	11.12*
			WG	14.660	38	0.386	
Adjusted Post Mean	7.17	7.63	BG	2.025	1	2.025	29.93*
			WG	2.503	37	0.068	

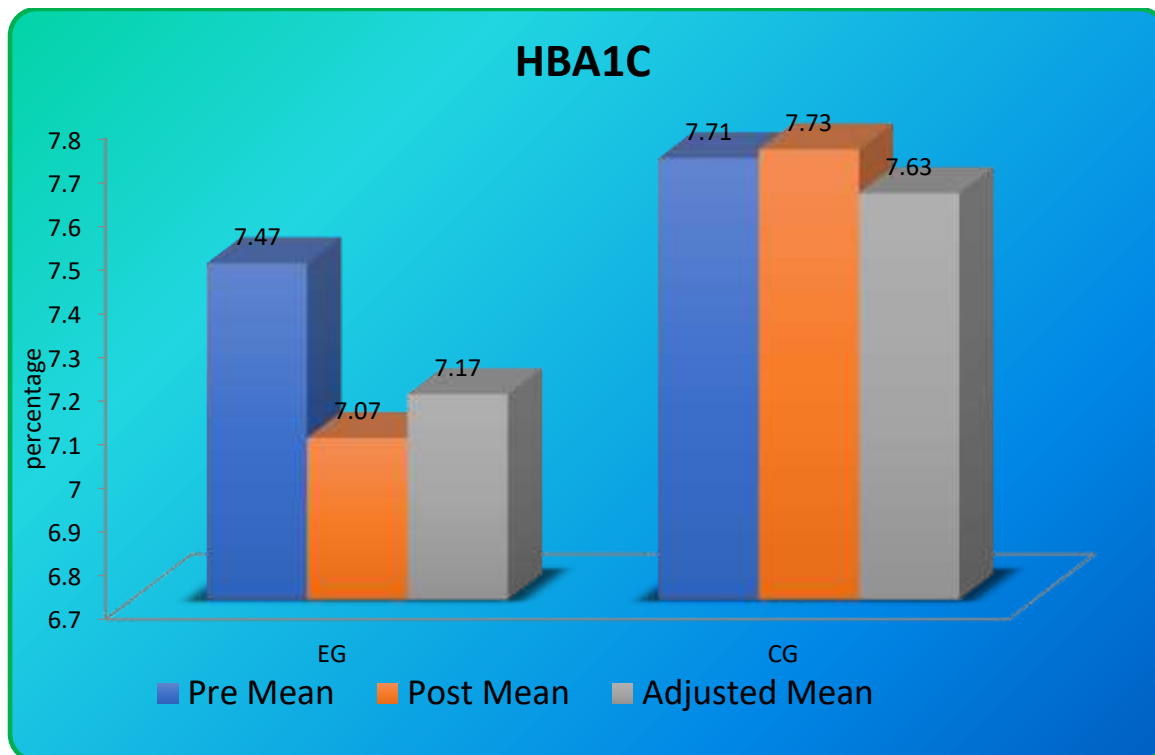
\* Significant at .05 level of confidence

**(The table value required for Significant at .05 level with df 1 and 37 is 4.10)**

Table II shows that the adjusted post test mean value of HbA1C for yogic practices group and control group were 7.17 and 7.63 respectively. The obtained F-ratio for the pre-test was 1.22 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 obtained F-ratio for the post-test was 11.12 and the table F-ratio was 4.09. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 38. The obtained F-ratio of 29.93 for the adjusted post test mean is more than the table value of 4.10 for df 1 and 37 required for significance at 0.05 level of confidence.

The results of the study indicates that there are significant differences among the adjusted post test means of yogic practices group and control group on the HbA1C. The mean values of yogic practices group and control group on HbA1C are graphically represented in the figure -1.

**FIGURE-1**  
**MEAN VALUES OF YOGIC PRACTICES AND CONTROL GROUPS ON**  
**HbA1C**



### Conclusion

Based on the results of the study, it was concluded that there was a significant difference between yogic practices group and control group on HbA1c due to 16 weeks of Yogic Practices among Type 2 Diabetic men.

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