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## Effect of yoga training and physical training protocol on haemoglobin level of under-graduate male students

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### Abstract

The purpose of current study was to examine the effect of yoga training and physical training protocol on Haemoglobin Level of Under - Graduate male students. To attain this purpose total forty-five (N=45) male students between age group of 17- 21 years (Mean  $\pm$  SD: age  $19.26 \pm 1.15$ years,) from Punjab were selected as subjects. Pre-test post – test randomized group design was used as experimental design in which total forty-five male students were divided into three groups of fifteen each as randomly. No attempt was made to equate the groups in any manner. Group - A (N<sub>1</sub>=15) yoga training group, Group-B (N<sub>2</sub>=15) physical training group underwent twelve – week training program and Group-C (N<sub>3</sub>=15) acted as Control group, who did not participate in any special training apart from the regular day to day activities. After the collection of pertinent data, to know the effect of twelve - week yoga training and physical training protocol on Haemoglobin Level of male students, to identify any significant differences between the pre-tests and post-tests means values of all the groups for the dependent variables paired t-test was employed with the help of Statistical Package for the Social Sciences (SPSS) 16.0. The level of significance was set at 0.05 percent.

**Keywords:** Yoga training, physical training, haemoglobin

### Introduction

Physical activity improves the quality and prolongs existence of our lives. Those people perform exercises regularly they agree that the main reasons for doing exercise is that it leads for feel good, help them to attain or maintain good health and physical fitness. The effect of regular physical activity significantly improves health, physical fitness and work capacity.

Yoga is a physical, mental, and spiritual practice or discipline which originated in India. Yoga is an ancient Indian science and way of life which talks about the origin of diseases. The texts describe the mechanism of how the suppressed emotions percolate into the physical body manifesting as diseases.

### Procedure and Methodology

To attain this purpose total forty-five (N = 45) male students between age group of 17- 21 years (Mean  $\pm$  SD: age  $19.26 \pm 1.15$ years,) from Punjab were selected as subjects. Pre-test post – test randomized group design was used as experimental design in which total forty-five male students were divided into three groups of fifteen each as randomly. No attempt was made to equate the groups in any manner. Group - A (N<sub>1</sub>=15) yoga training group, Group-B (N<sub>2</sub>=15) physical training group underwent twelve – week training program and Group-C (N<sub>3</sub>=15) acted as Control group, who did not participate in any special training apart from the regular day to day activities. After the collection of pertinent data, to know the effect of twelve - week yoga training and physical training protocol on Haemoglobin Level of male students, to identify any significant differences between the pre-tests and post-tests means values of all the groups for the dependent variables paired t-test was employed with the help of Statistical Package for the Social Sciences (SPSS) 16.0. The level of significance was set at 0.05 percent.

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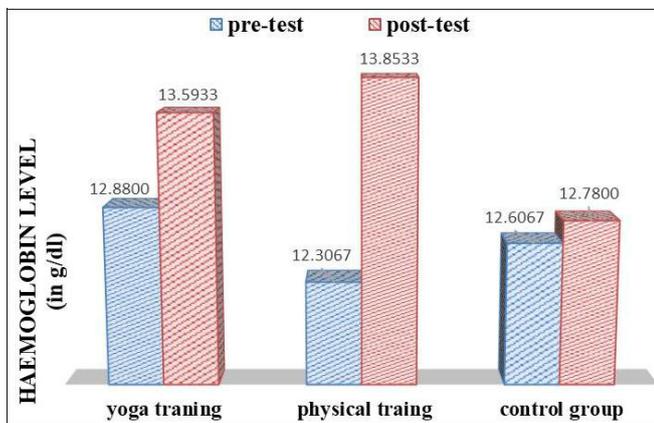
## Results

**Table 1:** Comparison Between Pre-Test and Post-Test Means of Two Experimental Groups and Control Group with Regard to Haemoglobin Level as Measured by Beckman Coulter Haematology Cell Counter (g/dl)

Groups	Pre – test	Post – test	Difference between mean	Standrad error of difference	't' Ratio	P value
Yoga Training Group	12.8800	13.5933	.71333	.08040	8.873	.000 <0.05
Physical Training Group	12.3067	13.8533	1.54667	.35535	4.353	.001 <0.05
Control Group	12.6067	12.7800	.17333	0.6724	2.578	.022 <0.05

\* Significant at .05 level  $t_{0.05}(14) = 2.145$

Table – 1 exhibited that the two experimental groups and control group were significantly enhanced in the variable haemoglobin level as measured by Beckman coulter haematology cell counter (g/dl) test after partaken in twelve weeks training protocol as the obtained 't' ratios 8.873, 4.353 and 2.578 for all three groups yoga training, physical training and control group respectively were found greater than the tabulated value 2.145 required. The p value of yoga training group was  $.000 < 0.05$  and physical training group was  $.000 < 0.05$  and control group was  $.022 < 0.05$  are below than 0.05 level of significance. The results of table – 1 was also attainable in Figure - 1.



**Fig 1:** Comparison between Pre-Test and Post-Test Means of Two Experimental Groups and Control Group among Haemoglobin Level

## Conclusions

The result approved that, after the joined the twelve - weeks yoga and physical training program significant change was originated in hemoglobin level in both experimental (yoga group and physical group) and control group through assessing the pre and post-test mean values.

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