



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2018; 3(1): 555-556

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www.theyogicjournal.com

Received: 22-11-2017

Accepted: 24-12-2017

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## Therapeutic intervention of yogic training on modulation of growth hormone

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### Abstract

In the present study it was planned to scrutinize the therapeutic intervention of yogic training on modulation of Growth Hormone. One – Group Pretest - Posttest Design was used as experimental design in present study. All subjects were selected in terms of purposive samples under the sampling method of non-probability sampling. To achieve purpose of present study total ten (N=10) male students between age group of 23- 28 years, from Department of Physical Education, Punjabi University Patiala was selected as subjects. The investigator has selected twelve weeks yogic training as independent variable and Growth Hormone as dependent variable of the study. After the collection of relevant data, to know the therapeutic intervention of yogic training on hormonal modulation, paired t-test was employed on mean values of pre and post-tests with the help of Statistical Package by Graph Pad Software. The level of significance was set at 0.05 percent. After the analysis of data it was concluded that after the application of twelve – weeks yogic training protocol the Growth Hormone level increased significantly in male students.

**Keywords:** Yoga, pranayama, aged women, breath holding capacity, vital capacity

### Introduction

Who are we? We can learn the answer to this question by observing, hypothesizing, experimenting, and analyzing. We are complex living beings in a complex, contradictory, ever-changing world. We know that we do not understand everything about ourselves, but by using modern scientific and ancient philosophical methods we can keep learning more and more.

Growth hormone (GH), also known as somatotropin or human growth hormone, is a peptide hormone produced by the anterior pituitary gland in the brain. GH stimulates growth, cell reproduction and cell regeneration in humans and other animals. GH is synthesized and secreted by anterior pituitary cells called somatotrophs, which release between one and two milligrams of the growth hormone each day. GH is especially important for normal growth in children, and GH levels rise sharply throughout puberty, peak at about age 20, and then slowly decrease throughout adulthood; although a healthy pituitary never totally ceases GH production. The secretion of GH is controlled by the hypothalamus, which sends signals to either shut off the release or initiate a pulse of growth hormone into the bloodstream. So, basically the hypothalamus is the boss of the anterior pituitary. (Thyrocare Tech. Lim., 2016) [5]. Origin of yoga in India is a giant leap in Indian history, which is not fully understood by us. Our scientists have penetrated the heart of an atom and even they have successfully landed on the Mars but we are unable to find out the scientific facts behind yoga.

During the scanning of relevant literature for the proposed topic, only few studies were found, revealing the effect of yoga on hormone secretion in human body. The scholar, being ardent lover of yoga and has experienced the great benefits of such exercises. Hence, in the present study it was planned to scrutinize the effect of yogic therapy on Growth Hormone of human body.

### Methodology and Procedure

In the present study it was planned to scrutinize the therapeutic intervention of yogic training on modulation of Growth Hormone.

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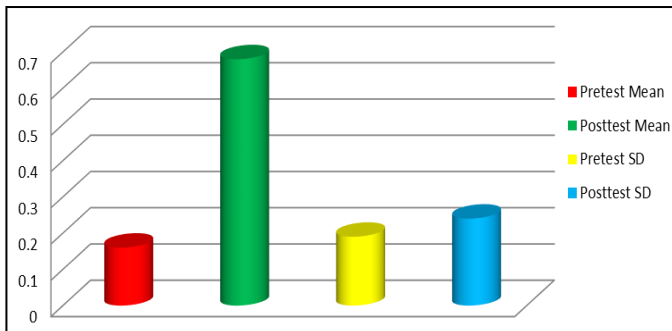
## Results of the Study

**Table 1:** Comparison of Mean and SD values of Pretest and Posttest of Growth Hormone level in Male Students

Growth Hormone	Mean	SD	t
Pretest	0.16	0.19	5.85*
Post-test	0.68	0.24	

$t_{.05}(9) = 2.26$

The results of pretest and posttest namely Mean, SD, and t values of Growth Hormone level in male students are given in above table. This table depicts that the pretest Mean of Growth Hormone level in male students is 0.16 and posttest Mean is 0.68. Further the table statistically reveals that the calculated t value 5.85\* for Growth Hormone level in male students is greater than table value that is 2.26. Therefore the values of above table confirms that, after the application of twelve – weeks yogic training protocol the Growth Hormone level increased significantly in male students. The results of this table are also illustrated in following figure.



**Fig 1:** Comparison of Mean and SD values of Pretest and Posttest of Growth Hormone level in Male Students

## Conclusions

After the analysis of data it was concluded that after the application of twelve-week yogic training protocol the Growth Hormone level increased significantly in male students.

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