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## Analysis of circumferences between power lifters and body builders in open weight category

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### Abstract

The purpose of the study was to analyze the differences in circumferences measurements between Power lifters and Body builder. This study was conducting on 60 Power lifters and Body builders with an aim to find out differences in selected anthropometric measurements between the Power lifters (n=30) and Body builders(n=30). The data for the present study were collected from Punjab state. Each athlete was tested for various anthropometric measurements necessary for estimation of chest, hip, thigh and calf circumference of Power lifters and Body builders. To analyze the difference in these anthropometric measurements between two groups of Power lifters and Body builders were determined through 't' test. From the findings, it has been found that the Body builders have depicted somewhat lower mean value for chest circumference, hip circumference, thigh circumference and calf circumference as compared to Power lifters.

**Keywords:** Anthropometry, circumference, power lifters

### Introduction

Recent studies have demonstrated the applications of anthropometry to include the prediction of who will benefit from interventions, identifying social and economic inequity and evaluating responses to interventions. For more information on the application of anthropometric data, Anthropometry can be used for various purposes, depending on the anthropometric indicators selected. For example, weight-for-height (wasting) is useful for screening children at risk and for measuring short-term changes in nutritional status. However, weight-for-height is not appropriate for evaluating changes in a population over longer time periods. A clear understanding of the different uses and interpretations of each anthropometric indicator is help to determine the most appropriate indicator for evaluation. In recent past years, the selection and development of talent in sports have been gaining emphasis. Of course it involves integral approach of different sports science specialists. However, the role of anthropometry as a sports science is perhaps one of the most crucial in this regards. This is essential because the physique, body composition, physical growth and one's motor development are of fundamental importance in developing the criteria of talent selection and development in sports. The role of an emerging scientific discipline known as sports anthropometry is of great significance. It is the science that deals with the body measurements of athletes. The knowledge of this science is increasingly being appreciated by the sports administrators. The investigator in the underline study would like to compare the anthropometric variables i.e. circumference between Power lifters and Body builders.

### Methodology

To achieve the purpose of this study 60 Power lifters and Body builders i.e. Power lifters (n=30), Body builders (n=30), who participated in state level game were randomly selected and used as subjects in this study. Age group ranged from 20- 28 years. Each was tested for various anthropometric measurements necessary for estimation of chest, hip, thigh and calf circumference measurements of Power lifters and Body builders. A set of anthropometric measurements, were taken into consideration for anthropometric measurements of chest, hip, thigh and calf circumference measurements of Power lifter and Body builders. Measuring tape was used for the measurements. To test the significance of mean difference between the Power lifters and Body builders, statistical technique of 't' test was applied.

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## Results and discussion

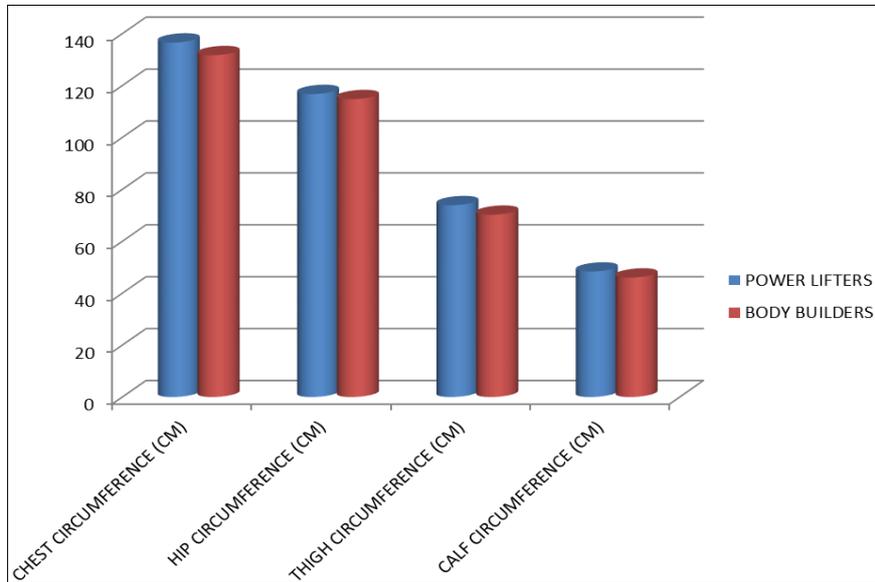
Since the purpose of the study was to analyze the selected

circumferences of Power lifters and Body builders, these are explained with the help of table.

**Table 1:** Comparison of circumferences (cm) between players of power lifters and body builders

Variables	Power Lifters (N-30)			Body Builders (N-30)			T value
	Mean	SD	SEM	Mean	SD	SEM	
Chest Circumference (CM)	136.57	1.17	0.21	131.70	3.39	0.62	7.4459*
Hip Circumference (CM)	116.73	1.14	0.21	114.77	1.36	0.25	6.0731*
Thigh Circumference (CM)	73.90	1.21	0.22	70.23	2.94	0.54	6.3068*
Calf Circumference (CM)	48.33	1.03	0.19	46.03	0.67	0.12	10.2702*

\* Significant at .05 level



**Fig 1:** Comparison of circumference (cm) between Power lifters and Body builders

Table Depict the means, standard deviations and values of SEM for chest circumference, hip circumference, thigh circumference and calf circumferences of Power lifters and Body builders. Further, it has been found that the Power lifters have depicted somewhat higher mean value for chest circumference, hip circumference, thigh circumference and calf circumference as compared to Body builders. Mean differences were found to be extremely statistically significant.

## Conclusions

Power lifter possesses higher value for circumference of chest, hip, thigh and calf than Body builders. However they do extremely statistically significant in all circumferences when compared with each other.

## References

1. Chandel, Atter Singh. A comparative study of selected physical fitness physiological and anthropometric variables of tribal and non – tribal student of Himachal Pradesh PhD thesis submitted to the Panjab University Chandigarh, 1993.
2. Chauhan MS, Chauhan DS. The Relationship between Anthropometric Variables and Explosive Arm Strength of Volleyball Players, Journal of Drama- Greece.
3. Gopinathan P, Helina G. Correlation of selected Anthropometric and physical fitness variables to handball performance Journal of sports and sports sciences. 2009; 32(1):25-30.
4. Kumar, Subash. The relationship between selected anthropometric variables and performance in athletic programme of High and senior secondary school Ph.D.

Thesis submitted in Kurukshetra University, Kurukshetra, 1995.

5. Patil, Vijay Adhar. Relationship of selected anthropometric, physical and physiological variables of intercollegiate level athletes, Penalty Corner. 2011; 11(1):44-48.