



# AN ASSOCIATION AMONG TOTAL BODY PROTEIN AND SKELETAL MUSCLE

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### ABSTRACT

The present study was aimed to see the relationship among total body protein and skeletal muscle. For the purpose of study, under non-probability sampling technique the purposive sampling method was elected by the researcher. A total of 30 samples were taken from the population (Lakshmbai National Institute of Physical Education, Gwalior) and divided them into the two equal groups of 30 samples each. The age of the subjects is ranges from 18-25 years. The data was collected with the help of body composition analyzer "maltron bioscan 916". The data was analyzed with the help of SPSS 20 version software, by applying the descriptive statistics and pearson's correlation. After analyzing the raw data it was found that total body protein have significant relation with the skeletal muscle. Hence, the null hypothesis there is no significant relationship between both the groups is rejected at 0.05 level of significant and it was concluded that if total body protein is increased in the body it can cause to the significant improvement of skeletal muscle.

**KEYWORDS :** Total muscle protein and skeletal muscle.

### Introduction

Proper food habits and dietary habits of elite athletes is a very significant and determinant factor to athletic optimal performance. Elite athletes have increased energy needs because of their strenuous training in order to maximize their performance. Whatever anybody is eats and drinks directly affects his energy, strength of an individual. A well-planned diet can enable the boxers to maintain his ideal or optimum weight on a regular basis so that dieting and extreme weight reductions measures are not become a common practice before competitions (Rosenbloom C.A. 2000 1992).

Primarily the body composition is influenced physical activity and nutritious diet. Genetically the body composition is related to body type, amount of food consumed per day, the nature and degree of physical activity participation employ the deep influence on body composition. Overeating and low levels of physical contribute of poor body composition Individuals who are fat tend to eat more and are more sedentary. It is known fact that protein plays an important role for repairing the muscle tissue and for preparing the body. So for that the researcher have design the study an association between total body protein and skeletal muscle.

### Objective of the study

The objective of the study is to find out the relationship between total body protein and skeletal muscle.

### Hypothesis

The hypothesis of the study was "there is significant relation between both the groups of total body protein and skeletal muscle".

### Significance of the study

The study will be helpful for individuals, nutritionists to choose or prepare the best chart of nutrition for the individuals.

### Methodology

For the purpose of this study the samples were drawn from Lakshmbai National Institute of Physical Education, Gwalior. The non-probability technique of sampling was used by the investigator for selection of samples from the concern population. A total of 60 samples were drawn from the population. The age of the samples was ranges from 18 to 25years. The data was collected with the help of body composition analyzer "maltron bioscan 916". The data was analyzed through the SPSS 20 version, by applying the descriptive statistics and pearson's correlation.

### Findings and Interpretations

In the following sections the statistically analysed data has been presented. Results pertaining the relation between the total body

protein and skeletal muscle.

**Table-1: shows the mean, S.D and SEM.**

Descriptive Statistics							
	N	Mean	Std.Deviation	Skewness	Std. Error skewness	Kurtosis	Std. Error kurtosis
protein in kg	30	11.6427	3.26268	-.344	.427	-.318	.833
skeletal muscle kg	30	26.4877	5.84129	-.126	.427	-.946	.833

For applying any parametric statics there are certain assumptions which are need to be fulfill. For this study all the assumption of the pearson correlation was successfully fulfilled. The above table shows the average and std. deviation value of both the groups along with skewness and kustosis.

**Table-2: shows the pearson correlation between both the groups.**

Correlations			
	protein in kg		skeletal muscle kg
protein in kg	Pearson Correlation	1	.743**
	Sig. (2-tailed)		.000
	N	30	30
skeletal muscle kg	Pearson Correlation	.743**	1
	Sig. (2-tailed)	.000	
	N	30	30

\*\* . Correlation is significant at the 0.01 level (2-tailed).

After analysing the raw data the table-2 shows the full picture of the data for analysis. The above table shoes that there is significant positive (.743) relationship between both the groups of total body protein and skeletal muscle. The p value associated with both the groups is .000 which is less than 0.05 level of significance.

### Conclusion

After statistically analysis of the data through SPSS it was found that there is significant positive relationship of 0.743 between both the variables. Hence, it was concluded that total body protein have significantly affect the skeletal muscle of an individual.

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