

## Comparison of Upper Body Strength Endurance between Sports Person and Non Sports Person

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### Abstract

The purpose of the present study was to compare the upper body strength endurance between sports person and non sports person. Sixty (60) male students studying in G.B.Pant University of Agriculture and Technology, Pantnagar, U.S.Nagar, Uttarakhand, were selected as subjects for the present study.

Out of sixty (60) subjects, thirty subjects were university team players for the year 2013-2014 i.e. 12 from Cricket, 10 from Basketball, and 8 from Wrestling, were considered as sportsperson. Remaining thirty subjects, who were neither the players nor having any background of sports, were considered as non sportsperson. The subject's age ranged from 18 to 25 years.

The variable for study was- Upper body strength endurance and Upper body strength endurance was measured by Pull-ups.

To Compare the upper body strength endurance between sports person and non sports person mean difference method (t ratio) 't' test was used. The level of significance was set at 0.05 levels.

Results showed significant difference in upper body strength endurance between sports person and non sports person.

**Key words-** Strength Endurance, sports person and non sports person.

### INTRODUCTION

Strength endurance is the ability to overcome resistance or to act against resistance under conditions of fatigue (Hardayal Singh, 1997).

Strength endurance is the capacity of all or part of the organism to maintain strength expression through fatigue. (Frank W. Dick, 2006).

Strength endurance is a product of two motor abilities. Strength endurance can be a form of static or dynamic strength depending on the fact whether the movement is static (iso-metric) or dynamic (iso-tonic). Depending on the nature of the combination of strength and endurance the strength endurance can be further classified into proper strength endurance and endurance strength. Strength endurance is the ability to overcome high resistance or to act against high resistance under conditions of fatigue e.g., in combat sport, long duration events requiring strength e.g., pole vault. Endurance strength is needed for activities in which low resistances are to be tackled e.g., swimming, road cycling etc .

In all sports movement, whether fast or slow, movement have to be done under lesser or higher conditions of fatigue. Even for sprints some amount of strength endurance is required in the last phase or in heats. Strength endurance, therefore, is important in most of the sports. (Hardayal Singh, 1997).

## MATERIAL AND METHOD

The purpose of the present study was to compare the upper body strength endurance between sports person and non sports person. Sixty (60) male students studying in G.B.Pant University of Agriculture and Technology, Pantnagar, U.S.Nagar, Uttarakhand, were selected as subjects for the present study.

Out of sixty (60) subjects, thirty subjects were university team players for the year 2013-2014 i.e. 12 from Cricket, 10 from Basketball, and 8 from Wrestling, were considered as sportsperson. Remaining thirty subjects, who were neither the players nor having any background of sports, were considered as non sportsperson. The subject's age ranged from 18 to 25 years.

### Variable

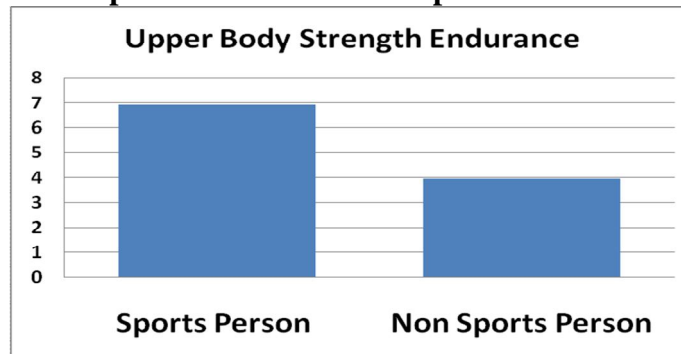
The variable for study was- Upper body strength endurance and Upper body strength endurance was measured by Pull-ups.

### Statistical Analysis

To Compare the upper body strength endurance between sports person and non sports person mean difference method (t ratio) 't' test was used. The level of significance was set at 0.05 levels.

## RESULTS AND DISCUSSION

**Fig. 1: Graphical Representation of Upper Body Strength Endurance between Sports Person and Non Sports Person.**



**Table-1: Mean comparison of Upper Body Strength Endurance between Sports Person and Non Sports Person.**

	Sports Person	Non Sports Person	"t" ratio
<b>Mean</b>	<b>6.9000</b>	<b>3.9667</b>	<b>11.182</b>
<b>SD</b>	<b>1.02889</b>	<b>.76489</b>	

Significant t 0.05 (58) = 2.000

The above table-1 reveals that significant difference was found in upper body strength endurance between sports person and non sports person, as the calculated value of 't' = 11.182 was greater than the tabulated  $t_{.05}(58) = 2.000$

### **Conclusion**

The findings of the study revealed that there was statistically significant difference in upper body strength endurance between sports person and non sports person of G.B.Pant University of Agriculture and Technology, Pantnagar, U.S.Nagar, Uttarakhand.

Sports person i.e. university male team players of Cricket, Basketball, and Wrestling for the year 2013-2014 of G.B.Pant University of Agriculture and Technology, Pantnagar, U.S.Nagar, Uttarakhand were having more upper body strength endurance than non sports person of G.B.Pant University of Agriculture and Technology, Pantnagar, U.S.Nagar, Uttarakhand.

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