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## Comparison of explosive strength between football and volley ball players of Purba Medinipur district

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### Abstract

The purpose of the study was to compare the Explosive Strength between football and volleyball players. Thirty football & thirty volleyball male players were taken as the subjects for the Study from the Purba Medinipur district. The age group of the subjects was ranged from (16-25) years. To measure Explosive Strength (vertical jump) between football and volley players, Sargent vertical jump test was conducted on the subjects in the present study. The data collected was subjected to descriptive statistic and student "t" test and level of significance was set at 0.05 level. There was a significant difference found between football and volleyball players. Football players show having more explosive strength when compared to volleyball players.

**Keywords:** Football, Volleyball and Explosive Strength.

### 1. Introduction

Soccer (football) is unarguably the world's most popular sports. The common aspect of the game is the necessity of teamwork to complement individual skills. In order to adapt to the technical evolution within the game and players have to meet the physical demand of for the game. Further, growth and development phase of life has impact on training and performance (Reilly, 2005). Physique and body composition have an important role for playing soccer (Gil *et al.* 2007). Mainly contact sports, football involves a verity of kicking, sprinting, throwing, shooting, trapping etc; skills and require a high level of fitness.

In football and volleyball jumping ability is a most important movement for attacking as well as defensive players. In case of volleyball, the front row must be blocking position ready to jump or move each time the opponent touches the ball. In the time of attack horizontal and diagonal footwork normally fills this position and simultaneously a vertical jump also needed to hit or attack or smash the ball. In case of defensive position here also used the vertical jump to obstructed or defense the ball which is passed by the opponents. Similarly about defensive players they are also used the vertical jump to obstructed or defense the ball which is played by the opponent. So, both the game of football and volleyball required maximum jumping ability which is influencing the performance of the game.

Football is a game which requires very fast body movement which is determined by situations within the match such as: opposing team's player with and without the ball, ball movement and team mate movement. Because of these reasons, modern football game is characterized by fast movements, which become prominent in short and long sprints, explosive reactions (jump) and quick changes of direction. Authors who dealt with this problem (Cometti *et al.*, 2001) share the opinion that these are some of the characteristics which distinguish winning from losing sides, on high-quality levels of competition.

**2. Objective of the study:** To compare the Explosive Strength between basketball and volleyball players of Purba Medinipur district.

### 3. Methodology

#### 3.1 Selection of subject

In order to compare the jumping ability between football and volleyball players, thirty football (N=30) & thirty volleyball (N=30), male players were taken as the subjects for the Study from Purba Medinipur district. Thus the total number of subjects were (N=60) sixty only. The age group of the subjects was ranged from (16-25) years.

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Selection of variables: The physical fitness variable in the present study was explosive strength. And explosive strength was measured with the help of sargent vertical jump.

**3.2 Administration of test**

To measure Jumping ability (vertical) between Football and volleyball players, Sargent vertical jump test was conducted on the subjects in the present study. The collected data were calculated by using descriptive statistic and student “t” test and the level of significance was set at 0.05 levels, after that the conclusion drawn on the basis of the findings.

**4. Results**

The mean and standard deviation of obtained data belonging to motor fitness item of jumping ability as measured by Sargent Jump Test of vertical jump of football and volleyball players have been presented in following table.

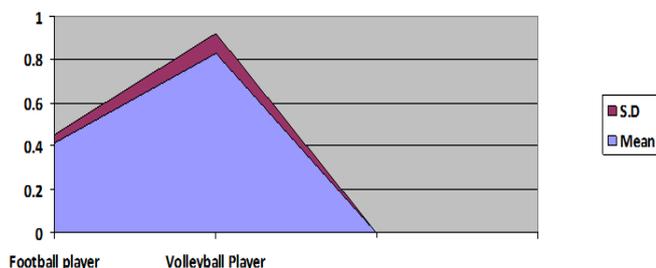
**Table 1:** Comparison of explosive strength between football and volleyball players.

Group	Mean	S.D	Mean Difference	Standard error	‘t’ value
Volleyball	0.412	0.044	0.417	0.25	3.53*
Football	0.829	0.092			

\*Significant at 0.05 level, tabulated t.05 (38) = 2.025.

The above table shows that a significant difference exist in the jumping ability between football ball and volleyball players, as Cal “t” value (3.53) is higher than Tab “t” value (2.025).

**Graphical representation of mean and standard deviations of football and volleyball players of Purba Medinipur District**



**5. Conclusions**

Within the limitation of the present study the following conclusions were drawn on the basis of obtaining results. In this study there was a significant difference in jumping ability between football and volleyball players of Purba Medinipur district. The mean value of jumping ability of the football players was better than the volleyball players.

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