## COMPARISON OF EXPLOSIVE STRENGTH BETWEEN HANDBALL AND FOOTBALL PLAYERS

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### ABSTRACT



The purpose of the study was to compare the Explosive Strength between Handball and Football players. Twenty Handball & Twenty Football male players were taken as the subjects for the Study from tehri and pauri District. The age group of the subjects was ranged from (18-25) years. To measure Explosive Strength (vertical jump) between Handball and Football players, sargent vertical jump test was conducted on the subjects for 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 significant difference found between handball and football players. Football players show having more explosive strength when compared to handball players.

Keywords: Handballer, Footballer and Explosive Strength.

#### **INTRODUCTION**

In handball and Football jumping ability is a most important movement for attacking as well as defensive players. In case of handball in 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. On the other hand in Football also any type of attack or lay-up shot horizontal and diagonal footwork are needed and simultaneously a vertical jump are requires to push op the ball towers the basket. 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 handball and Football required maximum jumping ability which is influence 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.

### METHODOLOGY

In order to compare the jumping ability between Handball and Football players, thirty handball (N=30) & thirty Football (N=30), male players were taken as the subjects for the Study from Lucknow and Kanpur District. Thus total number of subjects were (N=60) sixty only. The age group of the subjects was ranged from (14-17) years. To measure Jumping ability (vertical) between Volley ball & Football players, sargent vertical jump test was conducted on the subjects for the present study. The collecting data were calculated by using descriptive statistic and student "t" test and level of significance was set at 0.05 level, after that the conclusion drawn in the basis of the findings.

### RESULTS

To find out the jumping ability of school level handball & Football players. Sargent Jump Test of vertical jump was conducted on the subjects of handball & Football respectively. For the analysis of the present study, data were collected on jumping ability between volley ball and Football players, student "t" test was applied.

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 handball and Football players have been presented in following table.

# TABLE NO 1

### COMPARISION OF EXPLOSIVE STRENGTH BETWEEN HANDBALL AND FOOTBALL PLAYERS

Group	Mean	SD	Mean Difference	Standard Error	"t" Value
Handball	0.378	0.034	0.417	0.26	3.34*
Football	0.795	0.089			

\*Significance at 0.05 level tabulated  $t_{0.05}$  (38) = 2.025

From this findings clearly reveled that, significant difference exist on jumping ability between handball ball and Football players, as because Cal "t" value (3.34) is higher than Tab "t"  $_{0.05}$  (38) value (2.025). Mean of jumping ability of Football players were better than the handball players.

## DISCUSSIONS AND CONCLUSIONS

Within the limitation of the present study the following conclusions were drawn on the basis of obtaining results. In this study there was no significant difference on jumping ability between volley ball and Football players. Football and handball in case of both game jumping ability are omnipotent and both case movements are more over same so the researcher thinks that's why this present study find no significant difference between Handballer and Footballer. Jumping ability is important in both sports. In handball, however, a maximum jump is needed on almost every play, for both offense (hitting) and defense (blocking). In Football, a player can shoot, rebound, and perhaps even dunk without having to put their maximum effort into their jumps. Handball and Football players need a special quality of jumping ability. Both the games requires a high degree of running maneuverability total body ssjumping ability so that the player is able to gain good court position and compete with his/her opponents on both offensive and defensive maneuvers. Also, it requires fast acceleration in order to be able to sprint to advantageous position while attacking and counter-attacking.

## REFERENCES

Armason, A., Sigurdasson, S., Gudmundsson, A. (2004). "Physical fitness, injuries and team performance insoccer". Medicine and Science in Sports and Exercise. 36(2), 278-285.2.

Barrow L. J., Jack K.N. (1988). Practical Measurement for Evaluation in Physical Education. (3rd Edition) New Delhi Surjeet Publication.

Buttifant, D., Graham, K., Cross, K. (1999). Agility and speed measurement in soccer players are twodifferent performance parameters. In: Fourth World Chongress of Science and Football. Sydney: University of Technology.3.

Cometti, J., Maffiuletti, N. Pousson, M. (2001). "Isokinetic strength and anaerobic power of elite, subeliteand amatuer soccer players". International Journal of Sport Medicine. 22(1), 45-51.

Cronin, J., Hansen, K. (2005). "Strength and power predictors of sports speed". Journal of Strength andConditioning Research. 19(2), 349-357.4.

Djekalikan, R. (1993). The relationship between asymmetrical leg power and change of rinning direction. Master's thesis, University of North Carolina, Eugene, OR: Microform Publications, University of Oregon.

Donald K.M., (1978) Measurement in Physical Education. (2nd Edition) Philadelphia: W.B. Sounders Company,.

Dragoljub, V., Međedović, B., Stojanović, M., Ostojić, M. S.(2010). "Povezanost brzine i eksplozivne snagekod mladih nogometaša" [Relationship between speed and explosive power with young soccer players]. VIIIinternational conference – Strength and conditioning for athletes, 503-507.7.

Draper, J., Pyke, F. (1988). Turning speed: A valuable asset in Cricket run making. Sports Coach, 11(3):30-31

Draper, J.A., Lancaster, M.G. (1985). The 505 test: A test for agility in the horizontal plane. AustralianJournal for Science and Medicine in Sport, 17(1), 15-18.8.