



# ANALYSIS OF ANTHROPOMETRIC MEASUREMENTS AMONG UNIVERSITY NETBALL AND BASKETBALL PLAYERS

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## Abstract

**Introduction:** In the modern era of competition, the psychological preparation of a team is as much important as teaching the different skills of a game on the scientific lines. The teams are prepared not only to play the games but to win the games and for winning the games, it is not only the proficiency in the skill which brings victory with which they play and perform their best in the competition. The ability of individuals differs and has to channelize for the best result.

**Conclusion:** It was concluded that volleyball players are significantly differ in height and leg length from handball players and in upper arm girth, chest girth, thigh girth and calf girth handball players are significantly differed from volleyball players. These results show each game needs different characteristics to perform.

**Key words:** Anthropometry, leg length: upper arm girth: chest girth: thigh girth, girth calf

## **Introduction**

In the modern era of competition, the preparation of a team is as much important as teaching the different skills of a game on the scientific lines. The teams are prepared not only to play the games but to win the games and for winning the games, it is not only the proficiency in the skill which brings victory with which they play and perform their best in the competition. The ability of individuals differs and has to channelize for the best result.

The high performance of this modern era team game depends on several athletic aspects. Fitness profile is one of these important aspects for team game players, which requires players to have well-developed basic and specific motor abilities, cardio-respiratory capacities, speed endurance, a good

level of sprinting and maximum jumping in defence and offence, flexibility, as well as agility and coordinative abilities, which are indispensable for the efficient solving of game situations. Furthermore, a high level of aerobic capacity ensures the slower onset of fatigue and a fast recovery, whereas anaerobic capacity is responsible for endurance in high-intensity repetitive activities,

Despite the importance of physiological, physical fitness, and psychological features of team game players, the anthropometric characteristics of team game players are also very important for the success at elite level of competition.

**Aim:** The aim of the study was to know the difference in the selected anthropometric measurements between netball and basketball players.

**Procedure:** A total of 120 players, 60 from each game were randomly selected as subjects for this study. The anthropometric measurements selected for the study was height, leg length, upper arm girth, chest girth, thigh girth, and calf girth. The statistical technique 't' test was used to analyze the data.

**Results:** The statistical analysis shows that there was a significant difference in all the selected anthropometric measurements between netball and basketball players. The results presented in the following table.

**Key words:** Anthropometry, height, leg length: upper arm girth: chest girth: thigh girth, calf girth

Table – 1

**Showing the Mean  $\pm$  Standard deviation and 't' score of height.**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	171 $\pm$ 6.9208	2.38*
2	Basketball	60	174 $\pm$ 7.2130	

The above table shows the mean value, standard deviation, and 't' value of height of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. basketball players are having more height than the netball players.

Table - 2

**Showing the Mean value + Standard deviation and 't' score of Leg Length**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	88.39 $\pm$ 4.5015	2.3823*
2	Basketball	60	90.44 $\pm$ 4.9094	

\* Significant at 0.05 level

The above table shows the mean value, standard deviation, and 't' value of leg length of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. basketball players are having longer leg than the netball players.

**Table 3****Showing the Mean value  $\pm$  Standard deviation and 't' score of Upper arm Girth**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	26.69 $\pm$ 2.1650	3.3623*
2	Basketball	60	25.51 $\pm$ 1.3607	

\* Significant at 0.05 level

The above table shows the mean value, standard deviation, and 't' value of upper arm girth of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. netball players are having big upper arm girth than the basketball players.

**Table - 4****Showing the Mean value  $\pm$  Standard deviation and 't' score of Chest Girth**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	85.63 $\pm$ 4.2991	2.3301*
2	Basketball	60	84.06 $\pm$ 2.7418	

\* Significant at 0.05 level

The above table shows the mean value, standard deviation, and 't' value of chest girth of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. netball players are having wider chest than the basketball players.

**Table -5****Showing the Mean value  $\pm$  Standard deviation and 't' score of Thigh Girth**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	51.40 $\pm$ 3.0362	2.6639*
2	Basketball	60	49.50 $\pm$ 4.8555	

\* Significant at 0.05 level

The above table shows the mean value, standard deviation, and 't' value of thigh girth of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. netball players are having bigger thigh than the basketball players.

**Table - 6****Showing the Mean value  $\pm$  Standard deviation and 't' score of Calf Girth**

Sl. No	Players	Sample Size	Mean $\pm$ Standard deviation	't' value
1	Netball	60	34.88 $\pm$ 3.3982	2.3760*
2	Basketball	60	33.43 $\pm$ 3.3520	

\*Significant at 0.05 level

The above table shows the mean value, standard deviation, and 't' value of calf girth of netball and basketball male players. The 't' value shown significant difference between netball and basketball players. basketball players are having big calf than the netball players.

## CONCLUSIONS

The present study compared some basic anthropometric measurements of netball and basketball players. The results demonstrate that significant differences in favour of netball players in upper arm girth, chest girth, thigh girth and calf girth. basketball players have shown dominance in height and leg length. This is because of the coaching and training they get and as well as the nature of skills they have execute in the game.

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