

## “JUMPING PERFORMANCE COMPARISON IN YOUNG MALE BASKETBALL AND VOLLEYBALL PLAYERS”

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### Abstract

Jumping performance is crucial in team games with regards to basketball and volleyball. The aim of this study was to compare jumping performance in youth basketball and volleyball players. In total 61 male youth players (16.5 years) with regards to volleyball (N=28) and basketball (N=33) did assessment about anthropometric and jumping performance (standing long jump and high jump). Results for body height show (volleyball mean body height 177.8 cm and basketball 174.7 cm) and body weight (volleyball mean body weight 72.1 kg and basketball 67.2 kg). Standing long jump performances were for volleyball 222.3 cm and basketball 178.0 cm while for high jump the performance in volleyball were 289.7 cm and basketball 272.8 cm. Comparison statistical data analysis between disciplines for standing long jump show statistical significance difference in favor of volleyball players ( $p=0.000$ ). Also, the same jumping performance with regards to high jump in favor of volleyball players were found ( $p=0.000$ ). In conclusion data analysis of this study found that volleyball youth players have higher jumping performance comparing to basketball players.

*Keywords:* basketball, volleyball, jumping, players

### 1. Introduction

Sports games require optimal combinations of muscle strength and speed to maximize athletic performance. Maximal power is a fundamental aspect in ball games such as volleyball and basketball, because, in these sports, repeated maximum efforts including throwing, dashing and jumping, are frequently required. Indeed, volleyball players compete by adapting skills of spiking and blocking high above the head; while basketball ones aim to drive the ball by passing and dribbling among a group of opponents and teammates and score goals in a hoop located above the head. (Tsunawake N etc.2003) Since both games require handling the ball above the head during several technical-tactical actions, an elevated explosive strength appears to be one of the main physical components that are needed to train. Therefore, much time is spent during both the off-season and in-season training periods attempting to enhance power production in players regardless of competition level. Advanced training programs combine resistance training, plyometric exercise, and playing simulations to maximize a player's ability to generate power. (MacDonald CJ, etc 2012) Generally, jumps are used when players make certain important technical acts such as the shot at basket in basketball or the shot or block in volleyball, which require not only a high jump but also the correct direction of forces of upper limbs to surmount the blocking attempts of opposing player. (Khelifa R, etc 2010) Basketball and Volleyball sports have a different performance from each other due to their special specifics of the game. Regardless of the specifics of the way of playing, players must develop vertical jump during the game.

## Aim

The aim of this study was to compare jumping performance in youth basketball and volleyball players. To compare the standing long jump and high jump between to sports basketball and volleyball, by measuring the player of both sports and testing field.

## 2. Methods

In total 61 male youth players (16.5 years) with regards to volleyball (N=28) and basketball (N=33) did assessment about anthropometric and jumping performance (standing long jump and high jump).

In the beginning the length of the players was measured and later the field measurements were performed: Standing long jump and high jump and then after was calculated the differences. And in the end was found the exact height and length of the players.

## 3. Results

Results for body height show (volleyball mean body height 177.8 cm and basketball 174.7 cm) and body weight (volleyball mean body weight 72.1 kg and basketball 67.2 kg). Standing long jump performances were for volleyball 222.3 cm and basketball 178.0 cm while for high jump the performance in volleyball were 289.7 cm and basketball 272.8 cm.



Fig 1,2,3.

Table 1.

Team	Body Height	Body weight	Standing long jumping	High jumping
Basketball	174.7 cm	67.2 kg).	178.0 cm	272.8 cm
Volleyball	177.8 cm	72.1 kg	222.3 cm	289.7 cm

## 4. Discussion

Comparison statistical data analysis between disciplines for standing long jump show statistical significance difference in favor of volleyball players. Also the same jumping performance with regards to high jump in favor of volleyball players was found. Data analysis of this study found that volleyball youth players have higher jumping performance comparing to basketball players. It also depends on the way and type of jump in these two different sports. Where in basketball the jump is usually with one foot, such as three steps (layup); while in volleyball, two-legged jump is a very common type of movement. Also, from the way of training that

these two sports perform are different.

## **5. Conclusion**

In conclusion data analysis of this study found that volleyball youth players have higher jumping performance comparing to basketball players.

## **References**

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