



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2018; 3(2): 806-807

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www.theyogicjournal.com

Received: 15-05-2018

Accepted: 26-06-2018

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## Anthropometrics differences between handball and football players

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### Abstract

The purpose of the present study was to compare the anthropometric characteristics of handball and football male players. Total sixty subjects were randomly selected (30 from handball and 30 from football) from Jammu district; Jammu and Kashmir was taken as a sample. The age of participants ranged between 13-17 years. Anthropometric measurements were taken as per ISAK procedure. All the subjects were informed about aim and methodology of the study and they volunteered to participate in this study. 'T' test independent was used to analysis the data, level of confidence was set at 0.05 level. The results show that in the variables such as BMI, arm span, calf and biceps circumferences there were significant differences between handball and football players.

**Keywords:** anthropometric, handball, football

### Introduction

Today the sports persons are trained scientifically with the latest training methods and sophisticated instruments for higher performance improvement in different sphere of sports. The level of physical fitness indicates the amount of physical work that a person capable of doing besides the energy for desirable characteristics of muscle function for skilful movement as required in specific sports. This review is focused on anthropometric and physiological characteristics of soccer players with a view to establishing their roles within talent detection, identification and development programme. A range of relevant anthropometric and physiological factors can be considered which are subject to strong genetic influences (e.g. stature and maximal oxygen intake) or are largely environmentally determined and susceptible to training effects. Consequently, fitness profiling can generate a useful database against which talented groups may be compared. A purpose of this study was to determine if pre-season anthropometric and physiological measures were significantly different for the players from one Australian Football League (AFL) club selected to play in the first game of the season compared to the players not selected. Thirty-four players were tested for isolated quadriceps and hamstrings strength, leg extensor muscle strength and power, upper body strength, sprinting speed, vertical jump (VJ), endurance, skin folds and hamstring flexibility. Between starters and non-starters, at least in one AFL club. Comparisons of playing positions and the development of fitness norms for AFL players require further research (WB Young, 2005) [2]. The purpose of this study was to compare anthropometric measurements between government school state players and Private schools level players at college level. A total of thirty (N=30) subjects were selected from St. Joseph College of Physical Education, Moolamattom. The age of subjects ranged from 17 to 25 years. For this study, the selected variables were body weight, standing height and chest circumference. For the analysis of data, independent test was employed with level of significance 0.05. The results of the study shown insignificant differences in body weight and chest circumference (Singh Arun, 2012) [3]. The purpose of the present study was to determine anthropometric and physiological profiles of elite junior male and female Iranian rowers. The major results were as follows (male and female respectively): body height, body weight length of upper extremity), length of lower extremity shoulder width, elbow width), knee width ankle width (body fat percent pull up sit-ups bench press back squat, grip force agility [shuttle run test 25 yard aerobic power anaerobic power) and Sargent jump (Arazi Hamid, 2011) [4].

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The purpose of this study was to investigate the anthropometric and strength characteristics of elite male Private school state players' athletes and to determine if differences exist in these characteristics according to playing position. A group of 35 professional male team Private school state players (mean +/- SD age: 26.6 +/- 3.1 years) participated in the study (MC Marques, 2009)<sup>[6]</sup>.

### Methodology

For this study Handball, Football male players was selected from state level tournament. The age group was between 13-17 years. For this study total 60 plays, Handball players 30 and Football players 30 was selected.

### Measurements procedure

#### Leg Length

A "direct" measurement using a tape measure can be utilized to measure the "true" leg length from the anterior superior iliac spine.

### Results

**Table 1:** Mean, SD and t-ratios of anthropometric characteristics of handball and football players of state level competition

Variables	Handball players		Football Players		T value
	Mean	Standard Deviation	Mean	Standard Deviation	
BMI	19.97	1.83	18.42	1.92	2.32
Leg Length	93.45	5.3	94.16	1.63	0.63
Arm span	159.91	10.3	155.70	9.3	2.38
Calf circumference	33.21	4.1	30.33	3.8	3.95
Biceps circumference	24.46	3.2	21.28	3.1	6.13

It is seen that Handball players mean is 19.97 and Football players mean is 18.42 Mean difference between this two groups is 1.55 and t ratio is 2.32 which is significant at 0.05 level. It (H William, 1980)<sup>[8]</sup> stated that different countries develop different models for implementing the principles, because their traditions and modes of implementation differ. "When we try to pick out anything by itself, we find it hitched to everything else in the universe" Yet the principle remain the same to make sport more widely available to more people throughout their life time.

### Discussion and Conclusion

The researcher analyzed the collected data as per the aim of study. The statistical analysis of anthropometric characteristics of hand ball and football shown that in the variables such as BMI, arm span, calf and biceps circumferences there were significant differences between handball and football players. The results are in conformity with previous studies. The differences are due to nature of game and skill patterns.

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### Arm Spam

To measure the arm span, the person must be standing up against the wall with their arms extended sideways at a ninety degree angle. A person with a length measuring tool (usually a tape measure) will measure from one end of the tip of the middle finger to the other.

### Biceps

Measure with the tape the highest peak on the bicep muscle and the lowest peak on the triceps muscle. Arm fully extended and wraps the tape measure around it. Take the measurement from the biggest point in your upper arm.

### Calf Circumference

This girth measurement is usually taken on the right side of the body. The subject stands erect with their weight evenly distributed on both feet and legs slightly apart. The measurement is taken at the level of the largest circumference of the calf.

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