

## **Relationship between Shoulder Strength and Bowling Speed in Cricket Bowlers**

**Pooja Chugh Anand, Gulshan Lal Khanna, Varsha Chorsiya and Ankit Rana**

### **Abstract**

**Aim:** Relationship between Shoulder Strength and Bowling Speed in Cricket Bowlers. **Method:** A total of 82 cricket bowlers from different academy provided informed consent participated in the study. Each subject's bowling speed was measured by with the BUSHNELL Velocity Instrument .The radar was used to pick up the speed of each ball in Km/hr as it leaves the bowler's hand. **Results:** The mean age, BMI, height, weight of the subjects was 19.9±1.86 years 22.15±2.44kg/m<sup>2</sup>, 172.47±6.20 cm, 65.82±8.75kg. The mean value of percent body fat, muscle mass, total body fat and bone weight are 24.76±7.5, 44.34±5.42 Kg, 55.78±7.7 Kg, 2.69±0.29 Kg respectively. The mean values of internal rotation, external rotation, , abduction, adduction flexion, extension and bowling speed are 11.36±3.02 Kg, 10.8±2.6 Kg, 8.8±2.46 Kg, 10.6±3.3 Kg, 8.91±2.41 Kg, 7.32±2.07 Kg and 109.42±7.04 Kph respectively. The result revealed a significant positive correlation was found between bowling speed and adductor strength (r =0.60), bowling speed and abduction (r=0.56), bowling speed and internal rotation (r=0.59), bowling speed and external rotation (r=0.59).A positive mild correlation bowling speed and flexion (r=0.48), bowling speed and extension(r=0.46). **Conclusion:** The result of study concludes that a significant, moderate correlation exists between shoulder strength and bowling speed, so the shoulder strength training protocol can be incorporated for increasing the speed of the bowler.

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### **Introduction**

Cricket is one the most popular game in the world. Cricket as a sport received considerable research attention which seems to have coincided with an increase in the global audience for cricket. As a result research in the determinants of bowling speed has also become prominent. Bowlers that use ball release speed as a tool for success are generally classed into two groups: fast