

## A Study of Anaerobic Fitness of Cricket Players in Punjab

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### Abstract

**Aims:** The purpose of this study was to observe anaerobic fitness of cricket players in Punjab. The design of this study required participants to perform six sprints each of 35 meter. **Materials & methods:** There was one hundred fifty (N=150) trained male cricketers between the ages of 15 and 25 years volunteered for this study. Anthropometric rod, Weighing machine were used. **Results:** The mean age, height, weight and BMI of cricketers were 17.77±2.663years, 171.19±7.526cm, 57.45±9.421Kg and 19.54±2.585kg/m<sup>2</sup>. The mean sprint time of -1st, 2nd, 3rd, 4th, 5th and 6th of cricketers were 5.209±.3907seconds, 5.361±.3906seconds, 5.491±.399seconds, 5.619±.414seconds 5.737±.427 seconds and 5.885±.440 seconds respectively. The mean power of -1st, 2nd, 3rd, 4th, 5th and 6th sprints of cricketers was 510.33±131.402watts, 467.27±119.055watts, 434.64±110.242watts, 406.23±103.291watts, 379.59±95.486watts and 353.19±92.720watts respectively. The mean maximum power, minimum power, average power and fatigue index of cricketers was 510.33±131.402watts, 353.18±92.731watts, 424.60±106.663watts watts and 4.7891±2.093respectively. **Conclusion:** It was concluded from the results of this study that sprint time and power decline in cricketers may be due to reduced energy production via anaerobic glycolysis and muscle acidosis.

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### Introduction

Cricket, a global sport played in 100 countries, is watched by billions worldwide, and elite players can earn multimillion dollar contracts annually. Recent increased interest in sport has led to further professionalization of elite, or first-class, performance who can play high volumes of matches (n=100 days approximately) in a calendar year, with 3 established formats of the game, twenty-twenty (T20) being a 3-hour match, one day (OD) match lasting 6-7 hours, and multiday (MD) matches played between 3 and 5 days, differing physical qualities may be performance. Cricket players will have a distinct role in the team, either batting or bowling (i.e., fast medium, or slow speed), and fitness qualities are developed by strength and conditioning coaches on these roles (James A. joshnstone et al., 2014). The game of cricket has evolved considerably since it was first played in England some 400 years ago (Eagar, 1986). Cricket like many other sports has changed significantly over the years. The game has seen substantial changes in the nature of the activity over the years. The nature of the game has also seen dramatic changes, from it being a fairly subdued form of recreation to highly competitive international sports. Modern cricket matches typically take two forms, Limited over (1-day) and First class (4-5 day) matches. At the 'elite' level, cricket comprises of 'One-day international' matches (ODI) and 'Test' matches. One-day matches being more intense (Noakes and Durandt, 2000) but of shorter duration, while the intensity of test