

Haemodynamic and VO₂max Profile of Punjabi Cricket Players

Lokendra Bahadur Kathayat and Ashok Kumar

Abstract

Aims: To observe haemodynamic and VO₂max profile of Punjabi cricket players. **Materials & Methods:** There was one hundred fifty (N=150) trained Punjabi male cricketers between the ages of 15 to 25 years volunteered for this study. A queen's step test was used for estimation of VO₂ max. **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/m². The mean Pulse Rate, Systolic Blood Pressure, Diastolic Blood Pressure, Pulse Pressure, Mean Arterial Pressure, Rate Pressure Product, Stroke Volume, Cardiac Output, Heart Rate and VO₂ max was 116.67±18.759 (beats/minute), 144.75±14.255 (mmHg), 82.19±7.137 (mmHg), 62.55±13.086 (mmHg), 103.135±7.905 (mmHg), 237.241±36.767 (beats.min⁻¹.mmHg), 67.087±8.552 (ml/beat) , 11.01±2.00 (L/min) 163.85±19.354 (beat/minute) and 42.51±8.128 (ml.kg⁻¹.min⁻¹) respectively. **Conclusion:** It was concluded that the values of various haemodynamic variables of cricket players were in the normal range and VO₂ max (aerobic fitness) of cricket players was above to the normal as prescribed by the norms of queen's college step test.

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Introduction

Cricket is one of the most popular sports in many commonwealth countries. The game of cricket has long been regarded as 'the gentleman's game'. It originated in England as an aristocratic sport; a symbol of wealth and hierarchy among the British elites. Cricket over the years has received some attention from researchers, mainly focusing on English cricket and the effects it had on West Indian culture in the aftermath of industrialization (Maguire and Stead 1996). Cricket began to be played in rural southern England in the sixteenth century and since then the game has evolved considerably. There are three formats of cricket played at the international level - Test matches, One-Day Internationals and Twenty-20 Internationals. These matches are played under the rules and regulations approved by the International Cricket Council (ICC), which also provides match officials for them. Test cricket is the traditional form of the game and One Day Internationals also known as ODIs are a pacier format which started in 1971 but gained in popularity from the 1980s (ICC). Twenty-20 Internationals are the newest, shortest and fastest form of the game. Cricket has been described as an 'interval' sport with both anaerobic and aerobic components (Percival et al., 1982). Every sport has its specific requirement of aerobic, anaerobic fitness and haemodynamic variables which helps a player to perform better in it. There are a number of examples when aerobic, anaerobic fitness and haemodynamic variables make difference in performance of a player