

# Effect of High Intensity Interval Training on Aerobic Fitness and Speed Endurance of Inter-Collegiate Cricket Players

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## Abstract

*Background of the study:* High Intensity Interval Training (HIIT) comprises alternating intense or near-maximal exercise (85-95% HR max) with recovery intervals. HIIT has gained global popularity as a top fitness trend, involving brief, intense activity bursts with rest periods, offering a viable alternative to moderate-intensity continuous training (MICT). Recognizing the importance of aerobic fitness for optimal recovery between activity bursts, supported by heart rate data during play, highlights the need for diverse forms of general aerobic training to enhance the aerobic performance of professional cricket players. Individuals with higher aerobic fitness levels exhibit increased endurance and a superior capacity to perform repeated high-intensity exercise bouts with reduced fatigue compared to those with lower aerobic fitness levels. Endurance training typically relies on extended durations, often involving submaximal intensities like continuous moderate-intensity aerobic training. The objective of the study is to evaluate the effect of high intensity interval training in performance of the cricket players.

*Methodology:* A total of 50 subjects were selected for the study after obtaining informed consent from Cricket players among college students. The subjects were assessed and randomized into 2 groups such as control group (n=25) and experimental group(n=25). Control group was not given any intervention for 8 weeks whereas the experimental group was given High Intensity Interval Training (HIIT) for 2 days per week for 8 weeks. The study parameters include a YO-YO test (Beep test) for aerobic fitness and 150-meter dash run test for speed endurance, pre-test and post-test comparison done between the groups.

*Results:* There is high significant difference in the Post test values of the Experimental group than Control group with t values 19.59138 at  $p \leq 0.0001$  in speed Endurance and with t values -28.864214 at  $p \leq 0.0001$  in aerobic fitness which denotes that High Intensity Interval Training (HIIT) has significantly improved the speed endurance and Aerobic fitness among the inter-collegiate cricket players which was assessed by the Yo-Yo test.

*Conclusion:* It is concluded that High Intensity Interval Training (HIIT) was significant in improving speed endurance and Aerobic fitness among inter- collegiate cricket players.