

# Effect of Ten Weeks of Crossfit Training on 'Yo-Yo Test' Performance of Cricketers

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**Abstract:** Although Yo-Yo tests are frequently used in a variety of sports and research studies to determine physical fitness. The aim of the study to evaluate an individual's ability to repeatedly perform intervals over a prolonged period, particularly for athletes from different sports. For the present study, ten cricketers were selected from Grewal Academy, Ludhiana; age ranging between 17 to 24 years. The data was collected with 'Yo-Yo test' before (pre-test) and after (post-test) ten weeks of crossfit training. It was analysed through statistical procedure by using 't-test'. The result of the study shows that 'Yo-Yo Test' values differ with respect of crossfit training.

**Keywords :** Crossfit training, Physical fitness, Cricket, Yo-Yo test.

## I. INTRODUCTION

Basically cross fit is a branded fitness regimen created by Greg Glassman in 2000. Crossfit is pro-moted as both a physical exercise and competitive fitness from high intensity interval training, Olympic Weightlifting, plyometrics, powerlifting, gymnastics, girevoy sport, calisthenics strong-man and other exercises. It is practiced by members of over 13,000 affiliated gyms, roughly half of which are located in the United States and by individuals who complete daily workouts. Crossfit gyms use equipment from multiple disciplines including Barbells, dumbbells, gymnastics rings, pull ups bars, jump ropes, Kettlebells, Medicine balls, ply boxes, resistance bands rowing machines and various mats. Cross fit focused on constantly varied high intensity functional movement drawing on categories and exercises such as calisthenics Olympic style weight lifting, powerlifting etc.

The American swing, a kettlebell movement variation often used in CrossFit training. CrossFit programming is decentralized, but its general methodology is used by thousands of private affiliated gyms, fire departments, law-enforcement agencies, and military organizations, including the Royal Danish Life Guards as well as by some U.S. and Canadian high-school physical-education teachers, high-school and college sports teams, and the Miami Marlins. CrossFit is not a specialised fitness program, but a deliberate attempt to optimise physical competence in each of ten recognised fitness domains," says founder Greg Glassman in the Foundations

document. Those domains are cardiovascular and respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, balance, and accuracy. The crossfit program was developed to enhance an individual's competency at all physical tasks. It stands to improve one's physical fitness. Physical fitness leads to better players' performance and persistent training will usually develop physical fitness. The words fitness and sports, consider that physical activity through safe sports. Sports include all form of competitive physical activity or games.

Sports are usually governed by a set of rules, which serve to ensure fair competition. Like other sport, cricket has also rules and regulations that one must follow to play the gentleman's game. The popularity of the sport has increased over the years and many countries like China and the USA are preparing to venture into international competition. Television ratings and stadium attendance have been increasing and advertisers are willing to heavily invest in cricket.

Many people play just for fun, while many others dream of becoming professionals. Whatever your reason is, knowing all the rules and regulations will help make you a better player. This article will give you all the details about the various rules of cricket. ICC (International Cricket Council) recognises three forms of cricket. They are Test cricket, One Day Internationals, and Twenty-20 . Generally, the rules apply to all the formats with the exception of an exclusive rule or two for each one. Cricket is a bat and ball game played between two teams, eleven players each, on a field which has a rectangular twenty two yard-long pitch in the centre. The game is played by 120 million players world-wide making it the second most popular sport in the world. The purpose of the game is to score more runs than your opposing team.

A Cricket match is divided into periods called innings. It is decided before the game begins, if both teams will have one or two innings. During the innings one team bats while the other fields. All 11 players on the fielding team are on the pitch at the same time however only two batsmen are the field at any one time. Team captains toss a coin to decide who should bat first. Cricket fields tend to be oval in shape. The end which is marked off is called the boundary, with the rectangle "pitch" in the centre. At each end of the pitch are the wickets, 22 yards apart. A bowling crease is in line with the wicket and the batting or

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popping crease is 4ft in front of the wicket.

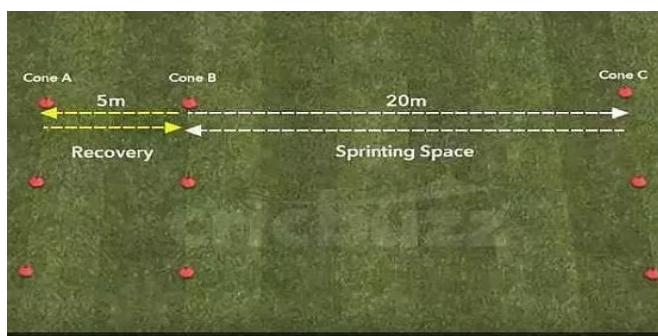
## II. YO YO TEST

The assessment of team sport athletes involved an aerobic fitness test such as the 12-minute run or more recently the Leger beep shuttle run test. However, questions about the relevance of these tests to intermittent sports led to the development of the yo-yo series of tests. The tests were first proposed by the soccer physiologist Jens Bangsbo in the 1990. The yo-yo intermittent and recovery tests are based on the more aerobic endurance 'beep' test, with the addition of an active recovery period of 5 or 10 seconds after each 40m run, and with faster running speeds so that there is greater stress on the anaerobic energy system. The name yo-yo is obvious, with the participants required to runs like a yo-yo back and forth between markers at a given speed. Bangsbo first presented the yo-yo tests in 1994 (Bangsbo, 1994). With his colleagues, Bangsbo investigated the validity and reliability of the tests, publishing the results in 2003 (Krustrup et al., 2003). Since then, the tests have quickly become a common test of the ability to repeatedly perform high-intensity exercise for team sports players, and are the subject of hundreds of research papers. As Bangsbo has worked predominantly with the sport of football (soccer), the yo-yo test was initially popular in that sport, and gradually come in favour for testing other sports which are similarly intermittent in nature, and its use is now is not limited to just intermittent type sports.

## III. MATERIAL AND METHODS

With random sampling, Researcher selected ten cricketers from Grewal Academy, Ludhiana those who participated in under-19 and under-23 tournaments of Punjab Cricket Association. The age ranging from 17 to 24 years would be selected randomly.

Researcher used ‘Yo-Yo Test’ intermediate as a tool to assess the performance of cricketers.



The researcher took the test in the morning and the data would be collected by the pre-test with ‘Yo-Yo Test’ of cricketers. The cricketers were restricted with 10 weeks crossfit training. After 10 weeks of crossfit training the post-data was collected. For analysis of the

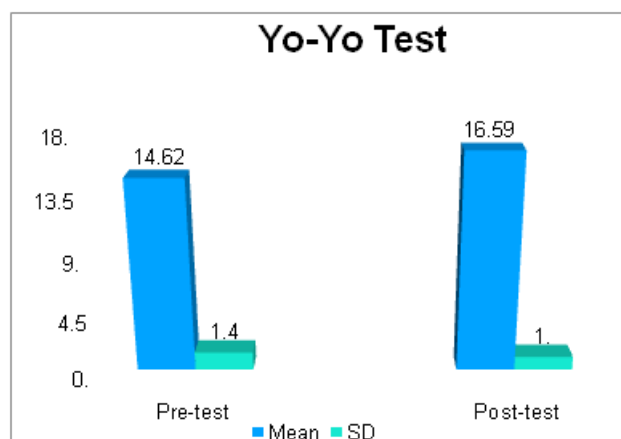
data collected from pre-test and post-test of cricketers mean, SD and t-test were applied and the level of significance was set at 0.05%.

## IV. RESULTS AND DISCUSSION

**TABLE-1 Mean, S.D and t-value between Pre-test & Post-test on Yo-Yo Test**

	Mean	SD	t-test
Pre-test	14.62	1.36	8.77*
Post-test	16.59	1.00	

\*Table Value= 3.17 at 0.01 level



**Fig 1. Shows the comparison of mean and S.D between Pre-test and Post-test on Yo-YO Test**

Figure 1 shows the Mean and SD of Pre-test is  $14.62 \pm 1.36$  and post-test is  $16.59 \pm 1.00$  of Yo-Yo Test of Cricketers. However, the t-ratio is 8.77, which is significant at 0.01 level. The calculated value of Yo-Yo Test (8.77) is more than the table value (3.17), hence we reject the null hypothesis. There is a significant difference between pre-test & post-test of Cricketers. Thus the hypothesis, “There will be no significant relationship in pre-test and post-test of ‘yo-yo Test’ of cricketers” is rejected

## V. CONCLUSION

As per the data obtained, the cross-fit training improved or increased the performance from pre to post training. The cross-fit training brings positive effect on Yo-Yo Test of cricketers.

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