

Effect Of Aerobic Training On Physical Fitness Components of Cricket Players

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Abstract

Healthy living and physical fitness are closely related. Physical activity is known to improve physical fitness and to reduce morbidity and mortality from numerous chronic ailments. The purpose of the study was to find out the effect of aerobic training on Physical Fitness components of Cricket Players. For the purpose of study, 40 subjects were selected from Shri Tulshiramji Jadhao Art and Science College, Washim. The age of the subjects ranged from 21 to 30 years. Cardiovascular efficiency was calculated by applying Harvard Step Test. The test was conducted in University Campus and recorded for each and every subject.

Procedure: Cardiovascular efficiency was calculated to measure Physical Fitness of subjects.

Statistical Tool: The descriptive Statistical mean was calculated to measure the cardiovascular efficiency of Cricket Players.

Conclusion: The result of the study revealed that there was a significant change in the Cardio-Vascular efficiency of cricket players.

Keywords: Cardiovascular efficiency, aerobic training, physical fitness, exercise

Introduction

Aerobic exercise is physical exercise of relatively low intensity that depends primarily on the aerobic energy generating process. Aerobic literally means requiring free oxygen and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. Generally, light to moderate intensity activities that are sufficiently supported by aerobic metabolism can be performed for extended periods of time. The intensity should be between 60 and 85% of maximum heart rate. Aerobic exercise is a moderate intensity workout that extends over a certain period of time and uses oxygen in this process. Aerobics has become the most happening workout trend among the youth.

There are different types of aerobics like fitness walking, jogging, swimming, kickboxing, inline skating, bicycling etcetera. It helps to strengthen lower back and works a great deal in enhancing cardiovascular development (Stoll & Jennifer, 1989).

'Aerobic' exercise refers to exercise that requires the consumption of substantially more oxygen than at rest. It is of a light to moderate

intensity, and can be undertaken for a prolonged duration (many minutes to several hours) without excessive fatigue. Examples of aerobic exercise include walking, jogging, swimming or cycling at a steady pace. Another example would be dancing or 'aerobics' classes.

Regular exercise causes your body to make adjustments that result in improved health and physical functioning. Continuing with regular exercise enables your body to maintain these benefits. Regularly doing the right types of exercise at the correct intensity, and for an appropriate duration, results in the most benefit.

The benefits of aerobic exercise can be broadly categorised as either 'fitness' (physical capacity) or 'health'. Fitness and health are linked, and most forms of aerobic exercise will help you achieve both in presence of oxygen is aerobic exercise. The positive effects of regular aerobic exercise on health have been demonstrated in many studies. Nevertheless, the effects of physical activity on the different body systems differ depending on duration intensity, number of sessions, type of exercise, and age. The goals of an exercise programme will vary from individual to individual.

Athletes for e.g. usually view exercise as a means of enhancing their athletic performance. The rest of us however are more likely to be interested in exercise as a means of improving or maintaining our general health and fitness.

Methodology

The researcher had decided to conduct the study of “Effect of Aerobic training on some physical fitness components of Cricket players”. For this study it was required to design the experiment. The subjects were selected from the Shri Tulshiramji Jadhao Art and Science College, Washim. Forty male subjects were selected as subjects for this study and the age group of subjects ranged between 21 – 30 years. The subjects were divided into two groups (experimental and control group) consisting of 20 subjects each. The subjects were selected by using simple random sampling method. The experimental group was given six weeks (42 days) aerobic training and no training was given to the control group. The study was delimited to a single component of physical fitness i.e. cardiovascular endurance. The data was collected before and after the end of six weeks program by administering Harvard Step Test for measuring cardio vascular efficiency.

Analysis and Interpretation

Data was statistically analyzed using descriptive statistics. PEI was calculated by applying the formulae; $PEI = 100 \times \frac{\text{duration of exercise in seconds}}{2 \times (\text{Sum of recovery pulse count})}$, Immediately after completing exercise and having one minute of rest the pulse of subjects was counted as 1 – 1 ½, 2 - 2 ½ and 3 – 3 ½.

Table 1: Mean values of cardiovascular efficiency

Group	Test	MEAN
Control Group	Pre-Test	94.730
	Post- Test	95.010
Experimental Group	Pre-Test	93.515
	Post- Tes	97.080

As per the Table 1 it is revealed that there was no any significant change in the mean scores of Control Group Pre-Test and Post-Test. While as there is a significant difference in the mean scores obtained from the experimental group Pre-Test and Post-Test.

Discussion on Findings

The purpose of the study was to find out the effect of aerobic training on physical fitness components among cricket players. The Experimental Group were given 42 days aerobic training in the morning session at University Campus. The study will help to reduce the undue fatigue among players and help coaches at the time of selection of players and later on introducing new exercises in aerobic training program to develop cardiovascular efficiency among desired subjects. The Cardiovascular endurance showed significant improvement as the planned training program shows the significant effect. Hence Aerobic training program of Six weeks was adequate for cardiovascular endurance.

Conclusion

On the basis of the findings of the study following conclusion can be drawn: The Aerobic training is directly proportional to cardiovascular endurance, as significant change was observed on application of 42 days training program on 40 subjects.

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