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# Impact of Aerobic Training on Cardiovascular Endurance of Football Players of Kalaburgi District

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#### **Abstract**

The present research study focused on The research study Entitled Impact of Aerobic Training on Cardiovascular Endurance of Football Players of Gulbarga District the researcher tried to find out the impact of aerobics training on the cardiovascular endurance of football players of the study the major objective of the study to check the impact of aerobic training on the cardio vascular endurance of football players, the 12 minutes cooper test the data also calculated on the SPSS software to find out the result of the study, fifty football players were selected through simple random sampling method and conducted pre and posttests to check the significance impact of the aerobic training on the independent variable of the study.

Keywords: Aerobic training, Foot Ball, Foot Ball Players.

#### 1. Introduction

#### 1.1. Aerobic Exercises

The term Aerobics was coined by Kenneth Cooper in the late 1960's who strongly believed that the reasonably strong firm workout to music could beneficial results for produce a cardiovascular endurance system. As one experiences the state of quickened breathing, the concomitant state of elevated pulse and cardiac output as a result of the exercise, metabolism is raised and the heart the most important muscle in the human body is given a decent workout. Aerobic exercise comprises innumerable forms. In general, it is performed at a moderate level of intensity over a relatively long period of time. For example, running a long distance at a moderate pace is an aerobic exercise, but sprinting is not. Playing singles tennis, with nearcontinuous motion, is generally considered aerobic activity, while golf or two Person team tennis, with brief bursts of activity punctuated by more frequent breaks, may not be predominantly aerobic.

#### 1.1.1. Benefits of Aerobic Exercise

Regular aerobic exercises will improve cardiovascular and cardio respiratory function (heart and lungs), an increased maximal oxygen consumption (VO2max), maximal cardiac output (amount of blood pumped every minute), maximal stroke volume (amount of blood pumped with each

beat) and blood volume and ability to carry oxygen. Reduced workload on the heart (myocardial oxygen consumption) for any given sub maximal exercise intensity, increased blood supply to muscles and ability to use oxygen Lower heart rate and blood pressure at any level of sub maximal exercise, threshold for lactic acid accumulation. Lower resting systolic and diastolic blood pressure in people with high blood pressure, Increased HDL Cholesterol (the good cholesterol), Decreased blood triglycerides reduced body fat and improved weight control Improved glucose tolerance and reduced insulin resistance(www2.Gsu.Edu/Wwwfit/Benefits.Html# Aerobic).

#### 1.2. Types of Physical Exercises

#### 1.2.1. Aerobic Exercises

It is a physical activity that uses large muscle groups and poses the body to use more oxygen than it would while resting as this oxygen helps in compulsion of bad cholesterol. The fitness abilities of the body can increase by involving the aerobic activities which means with normal physical activities done without any higher pressure it is with oxygen, like jogging, speed walk, swimming, long walk, tracking, playing table tennis other training method which are normal in their intensity.

2883



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### 1.2.2. Cardio Vascular (Respiratory) Endurance

Cardio vascular function is regarded by fitness experts as the most important of the fitness qualities, particularly, in the area of health related physical fitness. The vigorous physical activity improves cardio vascular function and thus reduces the incidence of circulatory disease (Bucher, 1985). Badminton is an endurance game without endurance the player cannot perform well.

Aerobics exercises improve the strength, endurance, flexibility, agility, power, etc.

#### 2. Research Methodology

#### 2.1. The Statement of the Problem

The Research Study Entitled Impact of Aerobic Training on Cardiovascular Endurance of Football Players

#### 2.1.1. Research Design

The present study tried to find out the impact of aerobic training on the cardiovascular endurance among the football players, the researcher selected the fifty football players, measured the pre-test on endurance and conducted the aerobic training for eight weeks than the again conducted the post test on the endurance of the sample [1-3].

#### 2.1.2. The Objectives

- To measure the cardiovascular endurance among the football players.
- To conduct the aerobic training for football players of the study.
- To compare the pre and post test data of cardio vascular endurance among the football players.
- To check the impact of aerobic training on the cardio vascular endurance among the sample of the study.

#### 2.1.3. The Hypothesis

- There would be impact of aerobic training on the cardiovascular endurance among the football players.
- There would be significance difference in pre and post data of cardio vascular endurance among the football players.

#### 2.1.4. The Variable

- Independent variable Aerobic training
- Dependent variable Cardiovascular Endurance

#### **2.1.5.** The sample

The researcher selected fifty football players from the Gulbarga district, the pre and post tests were conducted between eight weeks aerobic training session for football players.

#### 2.1.6. Data collection

The researcher collected pre and post test of endurance data from the football players of Belagavi district.

#### 2.1.7. Tool

The cooper test of 12 minutes for cardio vascular endurance test was used to measure the endurance among the sample of the study.

#### 2.1.8. Statistical Techniques

The suitable techniques used to measure the effect of independent variables on the dependent variables, techniques like **mean**, **SD**, **t** test, used to measure or compare the pre and post results of the sample group.

#### 2.1.9. Analysis and Interpretation of Data

The following table shows the mean SD and T Value of Pre and Post Cardio Vascular Endurance among Football Players of Kalaburgi District.

**Table 1** Analysis and Interpretation of Data

| Cardio Vascular<br>Endurance | N  | Mean    | SD     | T<br>Value |
|------------------------------|----|---------|--------|------------|
| Pre-Test                     | 50 | 1962.30 | 302.72 | 3.756      |
| Post Test                    | 50 | 2131.02 | 282.27 |            |

The Table 1 Showing the significance impact of aerobic training on the cardio endurance among the football players of Kalaburgi district. The pre-test mean score is 1962.30. the standard deviation is 302.72. The post-test mean is 2131.02 the standard deviation is 287.27. the T Value is 3.756 which is significant at 0.05 levels. The aerobic training has the positive impact on the cardiovascular enhance of sample.

#### 3. Summary and Conclusion

Aerobic exercise is the exercise that involves or improves oxygen consumption by the body. Aerobic means "with oxygen", and refers to the use of oxygen in the body's metabolic or energy-generating process. They are several kinds of aerobic exercise which are performed at moderate levels of intensity for

2884



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extended periods of time. To obtain the best results, an aerobic exercise session involves a warming up period, followed by at least 20 minutes of moderate to intense exercise, involving large muscle groups, and a cooling down period at the end.

#### Conclusion

- There is significance difference in pre and post data of cardiovascular endurance among the football players
- There is positive impact of aerobic training on the cardiovascular endurance among the football players.

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