

# Study Of Effects Of Cardiovascular Endurance Of Trainees Through Aerobic Training

**Dr. Jaydeepsinh Rathod**  
**SDJ International College Surat**

**Abstract :** The effectiveness of this study was to measure the effect of Aerobic training on the cardiovascular endurance for this study the selection of subject was done of 30 girl students of standard 8 to 10th from the SDJ International School, Palsana. For this study subjects was divided into 2 groups, 1 was of Aerobic training-ground second one was controlled group. The criterion measure used for the measurement of cardiovascular endurance was 12 minutes Run/Walk. After Collection of data, the difference between both group's mean was measured by one way analysis of covariance test. The significant level was 0.05 significant effects of Aerobic training was seen in the training group with comparatively to controlled group.

## **Introduction :**

Aerobics usually means working in the presence of oxygen. Aerobics or endurance exercises are a set of exercises in which the large muscles of the body move rhythmically for a long time. Aerobics exercises include activities such as brisk walking, jogging, swimming, cross country running, rope jumping and lameness. During aerobics, the large muscles of the body along with the arms, legs and torso are activated. Aerobics exercises stimulate the activity of the heart and lungs for a long time, leading to beneficial changes in the body.

During aerobics, the heart rate increases, as energy is supplied to various muscles and organs of the body by burning glucose and fat in the presence of oxygen. Aerobics exercises develop the endurance needed for sport, as well as improve muscle, circulatory and cardiac capacity. Thus, aerobics is the cornerstone of health.

Aerobics is done rhythmically with music, done in groups, done with the rhythm of dance, so it can be done in an enjoyable way without any extra effort, aerobics is a spontaneous activity. During exercise, oxygen is delivered to all the muscles and organs of the body through the collaboration of the respiratory system and the circulatory system. This is called 'aerobic method'. And this is why this endurance training method is called aerobic training method.

Every who wants to be tight, healthy and efficient needs exercise. Everyday work as professional work is not enough for physical ability or fitness XII round exercises helps to maintain and develop physical fitness. Vehicles these days have stopped the human's walking. People became lazy and he doesn't his day to day business.

In the field of sports, new records are being created. We can inter from that there is invisible power within a human being. If we try whole heartedly, we will become "Superman" and not even one or two it will be infinite.

The American Alience for health, physical education and dance provides consistent and active leadership in the long history of physical fitness. In 1959 Dr. Pulcancy Hare established the National Standards of the association for the hast physical education, recreation and dance youth fitness test and in 1961 AAHPERD test has gained importance as a major test in the physical fitness test since its releases in the youth fitness test manual.

**Objective of Study :**

Study of Effects of Cardiovascular Endurance of trainees through Aerobic training.

**Selection of Subject :**

For this research study standard 8<sup>th</sup> to 10<sup>th</sup> Girl Students are selected or SDJ International School, Palsana are selected for subject.15 for training group and 15 for control group, total 30 girls are selected.

**Criterion Measure :**

Sr. No.	Variable	Test	Measurement
1	Cardiovascular Endurance	12 Minute Run/Walk	In meter

**Design of the study :**

30 girl students were selected and divided then into 2 groups. Training & control group. Training group was trained by Aerobic and control group was totally free. Before 8 week training programe the pre-tests was conducted and after training post test collection was done.

**Statistical Procedure :**

For the One Way Analysis of Covariance test applied to know the difference between mean by heart significant difference post hock test with significant level. 0.05 for the study of effect of Aerobic training.

**Result of the study :**

**Table**

**One Way Analysis of Covariance of Performance of 2 groups controlled & experimental**

Test	One Way Analysis of Covariance						
	Aerobic Training	Control	Sum of Square		Degree of Freedom	Mean (MSS)	<i>F</i>
Pre-Test Mean	2405.334	2434.334	B	219307.5	1	219307.5	3.531
			W	2425566.67	28	86627.381	
Post-Test Mean	2507.466	2424.666	B	599818.8	2	599818.8	7.877*
			W	2105241.07	28	75187.181	
Adjusted Mean	2632.725	2499.407	B	122248.595	1	122248.595	13.153*
			W	251702.528	27	9322.31584	

\*Significant Level '*F*' = 0.05 (1,28) = 4.196 & (1,27) = 4.210

In table-1 the 'F' ratio of Pre-test was 3.531 which was seen insignificant at 0.05 level. Where 'F' ratio of Post test of Both groups was 7.877 which was seen significant at 0.05 level and 'F' ratio of improved mean was 13.153 which was seen significant at 0.05 level.

### Conclusion :

Through 8 week Aerobic training the Cardiovascular Endurance of Training was seen significant than controlled group.

### Reference :

Gopal, Usha, **Aerobic & Health**, New Delhi, Sports Publication-2006.

Leiny Brick, **Fitness Aerobics**, USA Champion: Human Kinetic Publisher, 1996.

Maitri H. M. Lesh, R & K Restoler, **A Practical Management in Physical Education and Sports**, 4<sup>th</sup> Edition, London : B. Ed. Feeming 1989.

Shah Chinubhai P., **Physical Sports Science Part-5**, Rajpipla, Gujarat Vyayam Pracharak Mandal, Sept. 1982.

Varma Prakashan J., **Text Book on Sports Statistics**, Gwalior : Vinus Publication, 2000.0

