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## Effects of 12-week aerobics exercises on flexibility variables of secondary school girls

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### Abstract

A study on the effects of aerobics exercise on high school inactive student suffering from being overweight, also showed decrease of fat and increase of consumed oxygen. Regular physical activity can increase the quality of life. Health is quality of life which enables a man to lead a happy life and serve others such a man makes a compromise with the environment by making a co-ordination in the physical and mental activities. Health it means does not mean only to the rid of diseases but it means to be healthy physically as well as mentally. Flexibility of the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life.

Flexibility is a pre requisite for maximal development of movement force and speed. greater range of movement enables the muscle to develop more force and speed and also allows movement with minimum of muscle tension and internal resistance help in achieving higher movement.

The study was undertaken with the aim to observe the effect of aerobics exercises training on flexibility. For this study total 50 Girls students were selected as subject from of Government High School Rajkallhalli, Distract Kolar, Karnataka their age ranged between 12-16 years. Students were given the treatment of selected aerobic exercises for 12 weeks and consisted of daily sessions, lasting 45 min. Both Flexibility were measured with the method by using Measuring stick and mat Score in cms. The mean and t-test applied the interpretation of data. The level of significance was set at 0.05.

**Keywords:** Flexibility, aerobic exercises, improving health related physical fitness components, secondary school girls

### Introduction

There are many number of exercises programs available but research has shown that those which stress the acrostic system of the body promise the greatest potential for improving the health. Aerobic exercise are the single most important stimulus for the treatment of various medical conditions and promotion of health. Aerobic exercise lead to favorable life style changes such as nutrition, weight control etc.

Aerobic fitness is the capacity of an individual to sustain exercise for a prolonged period of time. Aerobic activities involves a close interaction of various body systems which include the heart, blood vessels, the lungs and the muscles. Many adults make and female may be interested in undertaking aerobic exercise for reaping health benefits by preventing cardiovascular diseases and while doing so there may be dangerous situations for some individuals who possess a previous history of cardiovascular disease.

Aerobic exercise is physical exercise of low to high intensity that depends primarily on the aerobic energy generating process. Aerobic literally means "relating to involving or requiring free oxygen" and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. Flexibility is a pre requisite for maximal development of movement force and speed. greater range of movement enables the muscle to develop more force and speed and also allows movement with minimum of muscle tension and internal resistance help in achieving higher movement

### Material and Methods Subjects

The present study was done to know the effect of aerobic exercises on flexibility in healthy volunteers above the age of 12-16 years. Fifty purposively selected girl's flexibility from Government High School Rajkallhalli, Distract Kolar, Karnataka.

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Subjects were assigned into two groups: A (experimental: N-25) and B (control: N-25). All subjects, after having been informed about the objective and protocol of the study, gave their written consents. The subjects from Group A were subjected to a 12-week aerobic exercises training program. This lasted 12- weeks and consisted of daily sessions, lasting 60 min each, which included eight aerobic exercises'' shape, leg crul, toe tap, grape wine, cha cha cha, side to side, side kick. Thus, the aerobic training sessions were conducted in the following

**Timings**

- 1. Assembly and instructions 5 Minutes
- 2. Warm-up 10 Minutes
- 3. Aerobic Exercises 30 Minutes
- 4. Cool down 10 Minutes
- 5. Assembly, Instructions and Dismissal 5 Minutes

**Floor Aerobics**

All the subjects performed the aerobic exercises after proper warming up.

**Warm-Up Segment**

A ten minutes warm up session consisting of 200 meters jogging, a balanced combination of static stretches, smoothly controlled rhythmic calisthenics and limbering exercises were performed by the subjects prior to the training sessions (Soligard T, *et al.* 2008)

**Floor Aerobics Exercise Segment**

After the warm up, aerobics exercises were given for 30 minutes, along with the music, which was at 160-180 beats per minute. To start with the exercises, the subject stood with both feet at shoulder width distance and the arms were kept on either side of the body in a relaxed position, then the following aerobics exercises comprising of node consumption of two counts, four counts eight counts and sixteen counts were continued.

The Twelve week was observed in training. Both flexibility were measured with the sit and reach test method by using Centimeters. The best of three trails was treated as final score in Centimeters recorded.

**Analysis and Interpretation of Data**

The Effect of 12 Weeks Aerobic Exercises training on Flexibility Physical variables of Secondary school girls and training was imparted to Experimental Group and Control Group Performance was recorded at Pretest and Post-test and Interpretation of data has done as follows.

**Table 1:** Shows Mean, SD and t-value of Flexibility [Sit and Reach] Between Experimental Group and Control Group Pre-test and Post-test Data analysis

variables	Group	Test	Mean	SD	t-value
Flexibility	Experimental Group	pre	31.6	5.236	0.03
		Post	35	5.5151	
	Control Group	Pre	33.88	6.366	0.556
		post	34.92	6.034	

\*The level of significant is 0.05, Table value is 0.03

The Experiment Group showing the significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 31.6, Post-test 35, Standard Deviation Pre-test 5.23, Post-test 5.51, The Variables of the study clearly shows that the aerobic exercises

increases the Flexibility Measure By the Sit and Rich. The t-value is 0.03, this indicate the level of significant difference between Pre-test and Post-test of the Subject. The Control Group showing there is no significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t-value. The mean Score of Pre-test 33.88, Post-test 34.92 Standard Deviation Pre-test .6.36, Post-test. 6.03 The Variables of the study clearly shows that the aerobic exercises increase the Flexibility dose not play any role for Measure by the Sit and Reach. The t- value is -0.55, this indicate there is no significant difference between Pre-test and Post-test of the Subject.

**Summary**

The purpose of this study was to examine the effects of Aerobic Exercises training improve the Flexibility of High school girls. Pre-test has been conducted then the 12 weeks Aerobic Exercises training program organized to the High school girls, after the twelve weeks training post test conducted the researcher found that the effect of motor ability level the post-test result indicates significant improvement in the motor ability level.

**Conclusion**

Significant difference was observed on the variable Flexibility as a result of Aerobic exercises treatment. Insignificant difference between pre and posttest of control group was observed. In conclusion, the present study suggests that a 12-week of Aerobic exercises training improve the Flexibility of Secondary school girls.

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