

Effect of Circuit Training of selected Physiological and Anthropometrical parameters on Sedentary Males

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Abstract

The frequency used standard-the height, weight tables is of limited value in evaluating physique. It is well established that over weight and over fat and are not synonymous. The evaluation of body composition permits qualification of major structural component of the body muscle, bone and fat.

For the present study 30 (Thirty study) male subject were selected randomly out of 64 male subjects. The subjects' ages were in between 22-24 years and they were not participate games and sports regularly. The subjects were belongs to Sonarundi, Murshidabad, West Bengal, India.

The purpose of the study to find out the % of fat and heart rate at the pre and post-exercise of the sedentary Subject.

From the study it was reviled that the % of body fat of a sedentary individual has come down from the initial % of body fat or the % of body fat is reduced remarkably after training is comparison to pre-training level.

KEYWORDS: muscle, bone and fat, gait pattern, sedentary Subject.

Introduction

Excess brown of fat or muscle can make us over weight; although extra browns of fat posses more of a burden because the muscles can do useful work and take less space for equal weight. But even excess muscle seems unnecessary for the adult, unless it is needed for occupational reasons. College-aged men averaged at 12.5% of fat, college women average about 25% of fat.

The only way to remove stored fat is to burn it off by exercise. Exercise increases caloric expenditure. The rate of expenditure is related to both the intensity and duration of activity. As exercise becomes more intense, the duration of participation becomes limited. Although it is possible for us to expend about 25 calories in one mile run.

Body composition refers to that amount of fats versus lean tissue in the body. Lean tissue includes all tissues exclusive of fat that muscles, bones, organs, fluids etc. The essential fat is about 3% of the total body weight in case of male and 12% case of female.

Accurate appraisal of body composition provides an important base is to formulate on intelligent programmed of total fitness. The frequency used standard-the height, weight tables is of limited value in evaluating physique. It is well established that over weight and over fat and are not synonymous. The evaluation of body composition permits qualification of major structural component of the body muscle, bone and fat.

The total body weight of an individual includes fat weight and fat free body weight. A percentage of total body weight is exclusively covered by body fat.

Heart rate increases when any movement is done above normal activity. It increases to meet up the extra demand of energy. Heart rate is elevated to supply oxygen, which is needed for energy production. So heart rate determines the efficiency of an individual. If a heart can supply more blood to the working muscle along with oxygen in a minimum beat, is an efficient heart. A sedentary may not have efficient heart to fulfill his need under stress, which is far better for sports personal.

PURPOSE OF THE STUDY

- i) To find out the % of fat and heart rate at the pre exercise of the sedentary Males
- ii) To find out the % of fat and heart rate at the post exercise of the sedentary Males.

METHODOLOGY:

SUBJECT

For the present study 30 (Thirty study) male subject were selected randomly out of 64 male subjects. The subjects' ages were in between 22-24 years and they were not participate games and sports regularly. The subjects were belongs to Sonarundi, Murshidabad, West Bengal, India. Personal data of the subjects such as age, weight, % of fat, heart rate had been measured.

TEST CONDUCTED AND TOOLS USED

To measure heart rate stopwatch and to measure % of body fat skinfold caliper had been used. To find out body weight and additional weighing machine was used.

TEST PROCEDURE

A) PRE TRAINING PERCENTAGE OF FAT

With the help of fat caliper, from Biceps, Triceps, Sub-Scapula and Supra iliac body fat had been measured.

B) PRE TRAINING HEART RATE

- i) Early in the morning weight and others requisite information had been recorded as pre training raw date.
- ii) Early in the morning, the subjects were asked to sit on a normal posture on the chair and one minute heart rate had been recorded in a resting condition.

C) POST TRAINING MEASUREMENT % OF FAT AND HEART RATE

The measurement of % of fat and heart rate had been conducted in the same manner as it was conducted in the pre-training measurement.

FORMULA USED FOR ANALYSIS

- 1) To calculate the heart rate 60 sec pulse beats had been take.
- 2) To find out the % of body fat the scale score was taken from the standardized and prescribed table against the measured body fat (raw score). Then it is calculated by the body weight as follows :
 - i) Skinfold measurement is taken by using the Darwin and Womersley

RESULT AND DISCUSSION

In this chapter the data that were collected and had been presented in tabular form. The analysis of data and the interpretation of result were also presented.

Table – I: The Mean (Mn), SD, SE_D and t of pre-training and post –training on % of fat and heart rate.

	Pre-training	Post-training	SE_D	t
% of fat	Mn = 12.52 S.D. = ± 3.68	Mn = 11.69 S.D. = ± 3.80	.14	5.93*
Heart Rate	Mn = 72.17 S.D. = ± 5.38	Mn = 70.8 S.D. = ± 4.83	22.76	.03

df = 9, level of significant at 0.05 level = 1.83

Level of significant of 0.01 level = 2.82

* It is % of fat significant.

DISCUSSION ON THE FINDING AND RESULTS ANALYSIS

It was opined from the table that there may be significant difference between the pre-training heart rate and post training heart rate and % of body fat.

But from the statistical result it appears that 't' value % fat is 5.93 which one is higher than the scale value so it is highly significant.

't' value of heart rate is .03, which one is lower than the scale value so it is not at all significant.

CONCLUSION

In the conclusion it can be very categorically opined that the % of body fat of a sedentary individual has come down from the initial % of body fat or the % of body fat is reduced remarkably after training is comparison to pre-training level.

The fat mean (Mn) of sedentary Subject is 12.52 and heart rate is 71.7 at pre-training phase and the mean (Mn) of fat is 11.69 and heart rate is 70.8 at post training phase.

Although there is an impact of training on % of body fat but it seems that there is no impact of training on heart rate in concerned.

Prolonged training may change both the aspect that is % of body fat and heart rate but in the micro cycle training plan cannot put any impact on the heart rate. From the present study there is no ambiguity that short term training can only change the % of body fat as 't' value of heart rate is .03 which one is lower than the scale value.

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