

## Effect of diet and exercise on weight reduction and lipid profile in adults

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Study groups included a low calorie diet group, low calorie diet group with programmed exercise group and a control group. Six subjects participated in each group. An orientation programme that included initial group instruction separately for low calorie diet group and low calorie diet and exercise group was conducted for the subjects to know about exercise and dietary methods of weight control. Different calorie levels suggested for weight reduction had no much differential effect, as calorie levels prescribed were based on ideal body weight of the subjects *i.e.*, 20 kcal per kilogram of ideal body weight. Hence, it is indicated that adherence to low calorie diet with or without exercise is possible for a period of six months. Low calorie diets are helpful in reducing the fat deposition and undesirable biochemical parameters. But low calorie diet coupled with exercising daily for 30-45 minutes, six days in a week has an additional benefit in reduction of body weight, improving lipid profile and in increasing one's self image.

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### INTRODUCTION

Dietary approaches to weight loss generally take one of three forms *viz.*, starvation, very low calorie diets (VLCDS) and conventional reducing diets. Inactivity is often associated with obesity. An increase in physical activity is an important component of weight loss therapy. Hence an intervention study to know the effect of diet and exercise on weight reduction and lipid profile was conducted for obese subjects who were voluntarily willing to participate in the weight reduction programme.

### METHODOLOGY

Study groups included a low calorie diet group, low calorie diet group with programmed exercise group and a

control group. Six subjects participated in each group. An orientation programme that included initial group instruction separately for low calorie diet group and low calorie diet and exercise group was conducted for the subjects to know about exercise and dietary methods of weight control.

To prescribe total energy per day, computation of caloric requirement for obese subjects was done on ideal body weight (IBW). IBW was calculated using "BROKAS INDEX" (Raghuram *et al.*, 1998)

The low calorie diets were formulated in the range of 1000 to 1500 Kcal, based on caloric requirement for weight reduction of selected obese subjects and were explained to them. Details of one week menu and methods of preparation were given for the low calorie diet group.

For low calorie diet and exercise group, apart from explaining about the diet to be followed based on the calorie requirement, the exercise to be followed was stressed. The exercise included daily walking for 5 km/d or walking on a treadmill for 30 m/d or riding an ergocycle. The subjects were monitored at monthly intervals to facilitate and clarify any problems related to adherence to low calorie diets and / exercise.

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