

Effectiveness of Aerobic and Strength Training in Causing Weight Loss and Favourable Body Composition in Females

Lehri, A. and Mokha, R.

Department of Physiotherapy & Sport Science, Punjabi University, Patiala-147002

Abstract

The present study was conducted on 120 females ranging in age from 20 to 40 years to determine the effectivity of different exercise programmes in causing weight loss and favourable body composition. Based on the results of the study, it is concluded that both the strength training and aerobic exercise programs exhibit great potentials for weight management. Aerobic training has been observed to decrease body weight from both the fat and muscle compartments while strength training conserved the lean body mass and reduced the fat compartment and thus caused favourable body composition in females.

Key Words: Fat Free Mass, Body Composition, Resting Metabolic Rate, Females, Aerobic Training, Strength Training

Introduction

Obesity is a risk factor for several health problems including diabetes mellitus, arthritis, cardiovascular disease (CVD), and kidney dysfunction (*Stone et al., 1991*). Aerobic exercise has been widely prescribed and utilized as a means of weight control and fat loss. There is also evidence indicating that strength exercise is an effective means of influencing body composition. *Gettman and Pollock (1981)* summarized the effects of five weight training and six circuit weight training studies on changes in body composition. The studies showed a mean decrease in body weight of 0.12kg, increase in lean body mass of 1.5kg, and a decrease in fat mass of 1.7kg. The added benefit of strength training to an aerobic exercise program (caloric expenditure) is its effect on developing and maintaining muscle mass and metabolic rate.

Metabolic rate decreases with age and a primary factor influencing this decrease is reduced fat-free mass. *Campbell et al. (1995)* reported that resting metabolic rate and energy intake required to maintain body weight significantly increased in older adults following 12 weeks of

strength training. These data are in agreement with *Pratley et al. (1994)*. Thus it appears that resistance exercise should be a part of a well-rounded program including aerobic endurance exercise for weight loss and controlling weight with age.

For years the intrinsic worth and values of aerobic exercise have been adorned and celebrated while the benefits of resistance training have been minimized to that of building muscles and improving sports performance. More recently, the traditional perception of resistance training has undergone revitalization due to scientific evidence suggesting powerful health status betterment. In fact, there are a lot of voices that resistance training is the superior and only form of exercise you need. How the pendulum has changed! The good news is that the indications support significant claims for aerobics and resistance training for improvement in health. Therefore, the purpose of this article is to compare the effect of resistance training and aerobic exercise in influencing body weight and composition in females.

Materials and Methods