

A study of Body Mass Index in boys of 10-17 years in age

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Abstract

The study was conducted on a cross sectional sample of 228 children ranging in age from 10-17 years. Body weight, height was measured and Body Mass Index (BMI) was computed for each subject. The results indicate that BMI increased as age increased, except at the age of 12-13 years. On an average, it is found that the body mass index for 17-year-old boys was 20-25% greater than that of eight and nine year olds. Comparison of BMI values generated from the present study with those reported by *Cooper (1992)*, it is seen that the average BMI values of boys of the present study lie well below the health fitness zone (HFZ) limits. It is seen that for 10-13 year-olds, the percentage of subjects who fell below the HFZ limits ranged from 21-64%, with only 36-68% of subjects achieving the HFZ limits. Clearly, this indicates inadequate weight mass relative to height measurement, implying a very lean physique. Frequency of BMI values greater than 20 has been found to be very low in the present study. These results contrast those reported for American children, where obesity is clearly on the rise. The observation of underweight subjects in this study also poses a need for people to pay more attention to their health and what is being consumed. Over all, the study shows positive results for Punjabi boys. It can be confirmed that Punjabi boys at present are not confronting the obesity problem.

Key words: Endurance training, Resistance training, Functional capacity, VO₂max.

Introduction

The decline in physical activity as a result of modernization and industrialization has made the people prone to a number of debilitating diseases such as hypertension, obesity, coronary heart disease, diabetes etc. This has drawn the attention of health scientists to study the problem seriously and make efforts for the health promotion of the society. Some of the western countries have recognised the gravity of this situation. The United States of America (U.S.A.) began serious efforts in this direction in the year 1970 and their scientists are continuously engaged in helping its people change their life style to move towards a state of optimal health.

Modernization and industrialization has left great impact on the life styles of the people. This impact has shifted life style towards negative side more in which physical activity is declining. Nutritional intakes are going on increasing. In addition to this juicy food, fast food has taken the place of the essential food required by the body. Physical activity is declining day by day. According to *National Centre for Health Statistics (1994)*, obesity has been found at highest rates among poor and minority groups. *Natural Centre for Health (1994)*, *Kuczmarski (1992)*, *Piani and Schoenborn (1993)*, *Williamson (1993)*, have found that during the 1960s there was significant increase in obesity in westerns people. According to *Millar (1987)*, *Laurier et al, (1992)* several