

Correlation of selected fitness variables with fasting blood sugar

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■ ABSTRACT

With India having the highest number of diabetic patients in the world, the sugar disease is posing an enormous health problem in the country. Therefore, this study was undertaken to find out the relationship between selected fitness variables namely, cardio-respiratory endurance, muscular strength (leg and back), muscular endurance, flexibility and fasting blood sugar. Sixty healthy army soldiers with age 25 to 49 years, were randomly selected as a subject for the study from Gwalior (M.P.). All subjects were examined for cardio-respiratory endurance, muscular strength, muscular endurance, flexibility and fasting blood sugar by a standard procedure. The relationship between selected variables was determined with the help of Pearson product moment correlation using SPSS 19 version. Flexibility ($r = -.405^*$; $p < .05$) was found to be significantly correlated with fasting blood sugar while other variables were insignificantly related. It was concluded that flexibility was the only variable related to fasting blood sugar, indicating that this simple measurement may be useful as a marker of diabetes in the male.

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Currently, India is the diabetes capital of the world. It is estimated that over 40 million of those with diabetes are currently in India and that by 2025 that number will grow to 70 million. In other words, 1 in every 5 diabetics in the world will live in India. Simply diabetes was viewed as a disease of overfed, sedentary people of European ancestry. But it is now exploding around the world owing to the spread of western habits. A rise in living standards and the spread of calorie-rich, fatty, fast foods, cheaply available in cities to rich and poor alike on the other side increased sedentariness that has resulted from the replacement of manual labour by service jobs, and from the advent of video games, television and computers that keep people seated lethargically watching screens for hours every day are the reasons behind the diabetes epidemic worldwide (Diamond, 2011). In addition to fatness, physical activity and exercise have also shown to be crucial and effective in controlling major recurring conditions. Sedentary lifestyles have been linked to 23 per cent of deaths from leading chronic diseases, including heart disease and

Type 2 diabetes (Castaneda, 2003). These lifestyle choices have been linked to many chronic diseases. Because physical activity can help control weight, it can be utilized in preventing and treating chronic diseases. Various studies have shown that the high incidence of diabetes in India is mainly because of sedentary lifestyle, lack of physical activity, obesity, stress and consumption of diets rich in fat, sugar and calories. Hence, the purpose of the present study was to find out the relationship between health related physical fitness and fasting blood sugar among healthy army soldiers.

■ METHODOLOGY

Sixty (N=60) army soldiers with 25 to 49 years of age were selected as a subjects for the study from Gwalior city. They were measured for selected health related physical fitness variables namely, cardio-respiratory endurance, muscular strength, muscular endurance, flexibility and fasting blood sugar. Cardio-respiratory endurance was measured with the help of Cooper's 12 min run and walk test, Muscular