

ABSTRACT

The Effect of Protein Supplements on the Endurance and Muscle Building of 21-29 year old Men Involved in Regular Body Building Activities.

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Nutrition and exercise physiology share a natural linkage. Proper nutrition forms the foundation for physical performance and provides the necessary fuel for biological work and the chemicals for extracting and using the potential energy within this fuel. Protein supplements are protein and nutrition sources that are utilized to assist bodybuilders and athletes to achieve their desired daily protein requirement. A large number of body building supplements contain protein. Bodybuilding supplements may be used to replace meals, enhance weight gain, promote weight loss or improve athletic performance. Present study was conducted to see the degree of usage of protein supplements and the effects of these supplements on the energy balance and endurance of young men between the age group of 21- 29 years old, who were involved in regular body building activities at various commercial fitness centers in Bengaluru city. Hundred control and 78 respondents from experimental group were selected based on the consumption of protein supplements. Anthropometric parameters, nutrient consumption was assessed by using standardized methods. Endurance level and energy expenditure were assessed. The energy expenditure for the different endurance tests was assessed by the use of heart rate monitor. The mean nutrient intake and the percent adequacy of nutrients was higher among experimental group. Energy intake of respondents was deficient by 26.8 percent as compared to energy expenditure. Energy balance among the experimental group was comparatively better which was 481 kcal lesser than the energy expenditure compared to control group. The mean energy expended for endurance exercises such as pushups, bench press, free squats, plank and muscle grip dynamometry was 3.08, 3.04, 3.22, 2.89 and 2.06kcal respectively. Endurance level was also comparatively better among this group. This implies that protein supplementation has an impact on the upper body and core endurance level of the young adults who were regular users of the gym.