PRINT: ISSN 0970-9274 ONLINE: ISSN 2456-6608
JOURNAL OF HUMAN ECOLOGY
International Interdisciplinary Journal of Man-Environment Relationship

PRINT: ISSN 0970-9274 ONLINE: ISSN 2456-6608
J Hum Ecol, 46(1): 73-77 (2014)
DOI: 10.31901/24566608.2014/46.01.09

Anthropometric Profile of Adult Women as Influenced by Dietary Protein and Exercise

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KEYWORDS High Protein Diets. Body Weight. Body Mass Index. Wait Circumference. Hip Circumference. Adult Women

ABSTRACT The study was conducted to determine the effect of dietary protein and exercise on anthropometric measurements during a weight loss regimen. Sixty- one female employees of Punjab Agricultural University, Ludhiana with Body Mass Index (BMI) in the range of 25-35 kg/m^2 participated in the study. Culturally accepted hypocaloric (1300-1400 kcal) normal and high protein diets were designed. The subjects were divided into four groups *viz.* Control, Normal Protein (NP) with 12-15% protein and CHO/Protein ratio of 3.0-3.5, High Protein (HP) with 25-30% protein and CHO/Protein ratio of 1.5-2.0 and High Protein + Exercise (HP+E) with 25-30% protein and CHO/Protein ratio of 1.5-2.0 + Exercise. A significant ($p \leq 0.05$) increase in body weight of the subjects in control group was observed, however HP+E group showed a significant ($p \leq 0.05$) reduction in body weight after the completion of regimen. The Body Mass Index (BMI) of subjects in control group was increased by 1.6% while it was decreased by 1.7, 3.0 and 3.8% in NP, HP and HP+E groups, respectively. An increase in waist hip ratio was observed in control group by 1.4% but the experimental groups showed no change. The study highlighted that exercise along with high protein diet was effective to bring desirable body changes. The study recommended that the designed weight loss exercise regimens if followed properly over a period of time can prove helpful to attain appropriate body mass index.