national level of University of Delhi on selected body composition variables as estimated by using different equations. The sample size for the study was 78 having three groups of female (ie, experimental or progressive, constant load and control or no load group), each group having 26 samples (the mean age was 19.76 ± 0.69 years). Different equations used to compute the body density included Sloan, Durnin and Womersley, Weltman and Katch, Nagamine and Suzuk, Sloan and Weir and Jackson and Pollock, while both Siri and Brozek's formula were used to compute the fat percentage. The variables included lean body weight, body fat and percentage body fat. Standard landmarks and measurement protocols were followed to measure the selected variables as described by various authors. The mean and SD were computed to describe the data while analysis of covariance was applied to test the variability of covariance as the effect of experimentation (18 weeks of training) on selected groups (progressive load or intensive training, constant load or moderate training, no load or sedentary group); at different stages of testing that is, test-1 (at 0 weeks of training ie, pretest), test-2 (after 6 weeks of training), test-3 (after 12 weeks of training), test-4 (after 18 weeks or completion of training) as well as for intermittent stages of testing in a longitudinal experimental paradigm on selected variables of male. The paired t test comparison for mean difference was done as post-hoc analysis, where the F-ratio was found to be significant at 0.05 level. The level of significance chosen for testing the hypothesis was 0.05. The study concluded that a long term physical training paradigm of experimentation had a significant impact on body composition of female sports person of national level (students of University of Delhi), The estimation of body composition using different equations are comparable.

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115   **ESTIMATION OF BODY COMPOSITION USING DIFFERENT EQUATIONS ON A LONGITUDINAL PHYSICAL TRAINING PARADIGM OF EXPERIMENTATION ON FEMALE SPORTS PERSONS OF NATIONAL LEVEL**

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Estimation of body composition has always been a point of interest for health science applications as well as research. But there are many prediction equations available and it becomes difficult to select for specific purpose(s) for the Indian population. Hence, the objectives of present investigation were: (1) to estimate the body composition of female volunteers using different equations; and (2) to study the effect of longitudinal physical training programme on female sports volunteers of