

Bilateral Variations in Adipose Tissue Distribution, Segmental Lengths and Body Breadths in Relation to Physical Activity Status

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ABSTRACT The purpose of the study was to find out the level and range of bilateral asymmetry in the body morphology of adult men involved in four different traditional occupational groups i.e. Tailors, Farmers, Carpenters and Blacksmiths. A total of 800 adult men (200 each group) ranging in age from 30 to 40 years were examined for 19 anthropometric parameters (seven skinfolds, five circumferences, three segmental lengths and four body breadths) on both right and left sides of the body irrespective of handedness. Crossectional data has been collected from the different areas of Punjab during April 2003 and January 2004. Percentage distribution of asymmetry in the different regions of the body has been calculated using relative index of asymmetry (RIA) given by Wolanski, (1965). Results indicate that maximum effect of habitual work status on the body proportions of right and left side has been found in Blacksmiths who shows overall maximum bodily asymmetry in comparison to all the four occupational groups. Direction of asymmetry is generally towards right side of the body whereas the body of Farmers is found to be more symmetrical. Otherwise maximum percentage distribution of bilateral variations out of all the skinfolds, body circumferences, segmental lengths and body breadths has been found in biceps (Carpenters), thigh circumference (Blacksmiths), hand length (Blacksmiths) and femur bicondylar diameter (Blacksmiths) respectively.