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Body Composition of Rural Children Aged 2-6 Years of Bengalee Ethnicity from Arambagh, West Bengal, India

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ABSTRACT Knowledge of the body composition in terms of fat and fat-free mass is used in pediatrics to estimate a child's nutritional status and the prevalence of obesity in children and youth. The present cross-sectional study focused to evaluate the relationship of age, sex and Body Mass Index (BMI) with body fat composition measures among preschool children of Bali Gram Panchayat, Arambagh, Hooghly District in West Bengal, India.A total of 1,012 children (boys = 498. girls = 514) aged 2-6 years were measured. Significant age and sex variations were found in BMI and the body composition measures. Sex specific correlation of age with six body composition variables (except BMI) showed highly significant ($p < 0.01$) positive correlations except only in one, that is, PBF among boys, which showed a negative correlation. Sex specific correlation of BMI with other five body composition variables showed significant positive correlations ($p< 0.01$) between both the sexes. Authors have a weaker correlation among boys ($r = 0.12$) compared to much stronger correlation among girls ($r=0.72$) in case of PBF.