

Influence of Age and Sex on the Growth of Different Body-segments in 9-15-Year-old Schoolchildren from Sofia (Bulgaria)

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During the intensive morphological growth in the puberty, the age and sex (both as main effects and in their interactions) play an important role in the phenotypic trait development. In the present report we analyze data on the influence of age and sex on the dimensionality of 15 main height-length, width, and circumferential anthropometric features in 9-15-year-old boys and girls from Sofia (Bulgaria). The influence of both factors on the morphological growth was estimated by MANOVA. The results indicate that almost all of the morphological features are statistically significantly influenced by age and sex. The interaction of these factors has been found to be statistically significant for 10 of the measured features. So the growing boys are on average higher, have longer body parts, as well as larger chest circumference and breadth, wider shoulder and pelvic girdles, and a larger forearm circumference compared to the growing girls.

Key words: adolescents, age, sex, interactions, growth, anthropometric features.