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## **THE ARCH OF THE FOOT CONDITION IN STUDENTS AGED 18-24 ACCORDING TO THE FRIEDLAND PODOMETRIC INDICES**

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One of the most commonly discussed topics in orthopaedics are the static-postural changes of the feet. A frequency of flat foot dominantes among the static deformations. Flat feet has a progressive course and reduces life quality which is important for many medical specialties. According to the literature, among schoolchildren, flat feet were observed in 55.4% (K.V. Rkimova et al., 2014), among schoolchildren and students – in 37,9-49.1% (N. Witari, 2018), among persons 20-29 years old – in 31.8% of cases, an increase in the plantar arch – in 47.7% of cases (P. Inamder. et al., 2018).

**The aim** of research was to determine the condition of the longitudinal and transverse foot arch and flat feet frequency within female and male students studying at higher medical educational institution.

**Materials and methods.** Under supervision were 100 students aged from 18 to 24 years, 50 male with an average age of  $20.1 \pm 0.2$  year and 50 female with an average age of  $19.9 \pm 0.3$  year. Friedland podometric indices were used to determine the longitudinal and transverse flat feet.

**Main results.** A decrease in longitudinal foot arch of varying degrees was determined in 50% of the examined students on one (13%) or both (37%) sides. A sharp decrease in the longitudinal foot arch was observed in 23% of students on one or both sides, but a bilateral sharp decrease in 12% of students. There were 40% of female with bilateral flat feet, 10% with unilateral one, and 34% of male with bilateral flat feet, 16% with unilateral one. A transverse flat feet on one or both sides was found out

in 12% of the examined students (among female in 10%, among male in 14%), 11% of students had combined transverse and longitudinal flat feet. The feet excavation was observed in 22% of the examined students, but sharp feet excavation in 4%. The body mass index correlation with the podometric index was negligible. Significant differences in the flat feet frequency depending on the gender were not observed. Only 31.4% of students with the flat feet signs identified during examination were previously consulted by the doctor. Other problems of the musculoskeletal system in students with flat feet were encountered twice as often as in students without flat feet.

**Conclusion.** The obtained data indicate the necessity for timely diagnostics, prevention and treatment of flat feet, in particular among medical students. When flat feet do cause symptoms, simple devices and exercises can help to minimize the discomfort.