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BACKGROUND: There are conflicting findings regarding the relationship between socio-economic status (SES) and bone mineral density. We aimed to investigate bone status and its possible determinants by comparing students from two schools, located in a high and a low SES district.

METHODS: Data were gathered by using anthropometric measurements and a questionnaire for both families and the students from the two schools chosen by the Ministry of Education. Quantitative ultrasound measurements were done with Omnisense Sunlight 7000P. For normally distributed variables t-test and for others Mann-Whitney U test was utilized. We used the chi-squared test for nominal variables.

RESULTS: Forty-two girls and 35 boys from a low SES school, and 41 girls and 38 boys from a high SES school were included in the study. Students in the high SES school had significantly higher calcium scores and more physical activity compared to those in the low SES school. Boys in the high SES school had higher z-scores for quantitative ultrasound; however, they had higher Tanner stages when compared to boys from the low SES school. Speed of sound (SOS) and z-scores of the girls were similar between the two schools.

CONCLUSIONS: This study supports the notion that certain environmental factors, such as calcium intake and physical activity, might reflect socioeconomic trends in adolescents, similar to adults; however, genetic influences may dominate in terms of bone status.

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