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Research into Spinal Deformities 8

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Analysis of Changes in Selected Body Characteristics in Many Years of Observation of Children and Adolescents with Faulty Body Posture

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The aim of this dissertation is to address the question of how child's body posture changes in a period of ten years with particular emphasis on the back symmetry and pelvis symmetry.
The examinations were carried out in a group of 100 patients comprising of children and adolescents. This group of children and adolescents was examined twice within the period of 10 years (in 1997 and 2007).
Body posture assessment was carried out with the use of a Rippstein plurimeter by the same physician using the same examination methods each time. In 2007 body posture was additionally assessed using the photogrammetric method. The results were statistically analysed using the chi square test.
No statistically significant difference in the frequency of occurrence of faulty body posture in both groups was found
It was observed that the frequency of the rounded back in girls decreased while this particular faulty body posture increased in boys.
In the girl group the findings revealed that body posture transformations in puberty growth showed decreasing thoracic kyphosis and increasing lumbar lordosis.
An opposite tendency was observed in the boys'.
A statistically significant difference was found in occurrence frequencies of back asymmetry. It has been observed that left thoracolumbar asymmetry and right thoracic asymmetry as well as left lumbar asymmetry increased in both sexes.
They mostly concerned back asymmetry diagnosed in the youngest sub-group (4-7 year-olds), which undoubtedly addresses spine curvatures formation process in puberty.
The second examination revealed a statistically significant increase in occurrence of pelvis asymmetry as well as functional shortening of the right lower limb.
The comparison of the results obtained in the two examination methods showed their statistically significant consistency.