

## INCREASED BLOOD PRESSURE DURING PUBERTY

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Blood pressure is continuously increasing and increases with the child's age, that is, with the growth and development of the child.

The change in pressure value in puberty appears due to complex morphological and physiological changes in the organism under the influence of hormones.

With this work we have proven that blood pressure has a significant increase in children from 11 to 14 years compared to the previous period. We used the results of the systematic examination of school children of the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade in the city of Niš. A total of 2333 children of both sexes were analyzed. The blood pressure was measured in a seated position three times at a time interval of 5 minutes. For statistical processing, the highest value was taken. The greatest differences in blood pressure, diastolic pressure, occurred in boys compared to girls in the fifth grade, while girls had a higher diastolic pressure than boys in the sixth and seventh grades of primary school ( $p < 0.001$ ). Regarding morphological characteristics, girls had significantly higher body height values than boys in the sixth grade ( $p < 0.005$ ), while boys had higher values of both body height and body weight in the seventh grade ( $p < 0.001$ ). In the period of puberty, there are numerous changes in all systems and organs, blood pressure varies significantly, and therefore it has to be measured and controlled more frequently for the detection and prevention of arterial hypertension in children.

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