

## THE RELATIONSHIP OF THE CONCEPT OF "THE PHYSICAL DEVELOPMENT OF THE ADOLESCENT" WITH ADULT .

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**Annotation:** *A comprehensive assessment of physical development, taking into account both the level of biological development and the morphofunctional state of the organism, allows to identify physically developed children appropriate for both ages and children with various deviations due to excess or underweight. development is of great medical and social importance. Its level speaks a lot about the social well-being of the society. Disruption of physical development may indicate the child's unfavorable conditions and lifestyle, and this is one of the criteria for identifying socially disadvantaged families, determining the family's social risk, requiring medical and social impact measures.*

**Key words:** *adolescence, muscle mass, muscle strength, individual characteristics, puberty, secondary sex characteristics, hormonal changes, endocrine diseases, sex hormones, intensive growth. During adolescence, body proportions and individual characteristics of a person's appearance are finally determined. Although the growth and development of all parts of the adolescent's body, tissues, organs are in a certain sequence, but not uniformly: the limbs begin to grow early and intensively, then the transverse dimensions of the pelvis and chest increase (a little earlier in girls), and only then the length of the body. During this period, the back and chest muscles in boys begin to be clearly demarcated, they are formed as they grow in the male pattern, the roundness of the contours characteristic of early age disappears, the amount of subcutaneous fat layer decreases, and at the same time, the muscle the mass increases significantly due to the development of trunk and limb muscles. In girls, along with the growth and development of the muscular system, the subcutaneous fat layer increases uniformly with age. Gender differences in the type of breathing are also identified: abdominal breathing is formed in boys, chest breathing in girls. Sex hormones are active substances.*

They help the growth and ossification of the skeleton, the appearance of secondary sexual characteristics, the development of muscles and the increase of muscle strength, the increase of metabolic processes and the general functioning of the body. In adolescents, muscle strength increases in parallel with the increase in the content of sex hormones in the blood. Gender differences in the development of the skeleton, muscles, skin and subcutaneous fat layer are already clearly expressed in young adolescents in connection with the increase of the sex-specific hormone. International Conference at the External Department "Department of Exact and Natural Sciences" 209 The diversity of the time and level of puberty in adolescents makes it difficult to assess sexual development (corresponding to its age) and to identify its deviations. At the same time, there are special scales to

determine the sexual development of a teenager, including the quantitative assessment of the development of secondary sexual characteristics (pubic, armpit hair growth, the degree of development of mammary glands in girls), the time of the onset of menstruation and other some signs. But all these indicators are mainly determined genetically, and although they are related to the level of hormonal activity, this relationship can be low. Therefore, it is not always a weak development of secondary sexual characteristics in adolescents, but rather a delayed puberty. In cases of long delay in the appearance of secondary sexual characteristics in adolescents, methods of studying the content of sex hormones in blood and urine are widely used to determine the causes of abnormalities in puberty, which gives a more accurate picture. allows to rule out hormonal activity and adolescent endocrine disease. A more in-depth, hormonal study is used only in cases where a delay in puberty is detected. If the first signs of puberty appear before the age of 9 or after the age of 13 in girls, before the age of 10 or after the age of 14-15 in boys, it may be associated with endocrine disorders or adolescent diseases possible Such children and adolescents are under the supervision of an endocrinologist. In conclusion, each teenage child undergoes unique changes during puberty.

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