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FEATURES OF MATURATION OF BRAIN STRUCTURES OF HIGH SCHOOL STUDENTS IN THE CONTEXT OF OPTIMIZATION OF LEARNING CONDITIONS

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Early youth is a stage of ontogenetic development between teenage and adolescence, which coincides in age with the period of high school. [1] This is one of the key periods of the final maturation of the organism as a whole system, as well as its individual functional systems and a kind of strengthening of the connections between them. One of the most significant things at this stage is the age-appropriate development of the central nervous system and the corresponding mental development.

At this time, the processes of formation of the human brain are completed and, accordingly, the final formation of the balance of nervous processes, as well as in particular attention, mental development, memory, emotions, awareness, i.e. individual learning style is formed. [2] During this period, mental and physical performance increases sharply, and a differentiation between the functions of the right and left hemispheres continues forming.

The mental development of early youth also has a number of features associated with a significant increase in responsible mental testing: the final choice of future profession and prioritization of life, gaining experience of personal relationships, passing significant exams, entering adult independent life, etc ..

Functional asymmetry of the hemispheres, manifested at different levels (motor, sensory and mental) undergoes final changes and complete the formation under the influence of a complex of biological and sociocultural factors. Motor asymmetries as a manifestation of the lateral phenotype, which is one of the reasons for the existence in humans of a certain structure of the psyche, reflects the difference in the distribution of neuropsychiatric functions between the right and left hemispheres.

The above features determine the importance and relevance of optimizing learning conditions for students, taking into account their motor asymmetries, in which the individual approach is significant, which becomes more relevant with increasing student workload. Therefore, it is important to emphasize the control of the central nervous system and the appropriate adaptation of environmental conditions.

To optimize the educational space to the needs of students are important and the stage of increasing students' theoretical awareness of functional asymmetries, and practical increase of comfort in the classroom with certain basic methods and providing specialized tools. [3] Such measures are important and effective in today's conditions of significant load on the nervous system of the new generation due to the rapid dynamics of change in today's digital and information environment.

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