

DIFFERENCES IN THE PHYSICAL DEVELOPMENT OF BOYS AND GIRLS AGED 13–14 IN SECONDARY SCHOOLS AND AN INDIVIDUAL APPROACH TO THEM

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Abstract: This article analyzes the process of physical development of boys and girls aged 13–14, its specific physiological and psychological characteristics. Age-specific biological changes, gender differences in development, and the individual development rates of each child's body are scientifically covered. At the same time, the role of physical exercise, sports, and a healthy lifestyle in the physical development of children, the importance of healthy nutrition and sleep patterns, is emphasized. The article also analyzes the mental state and self-assessment processes of adolescents, the inextricable link between these factors and physical development, and highlights the responsibility of parents and teachers in this process and the importance of an individual approach. Based on the results of the study, recommendations are given on the correct organization of the physical education process, adapting the loads to age and individual capabilities, creating a positive psychological environment in children, and directing them to a healthy lifestyle.

Keywords: boys and girls, physical development, physiological differences, individual approach, healthy lifestyle, physical education, mental state, sports activities, nutrition, sleep patterns, adolescent psychology, health-promoting activities, anthropometric measurements.

Introduction

Adolescence is one of the most important and complex stages of human life. Especially between the ages of 13 and 14, rapid changes occur in the human body. This process is significantly manifested not only in the physiological, but also in the psychological and social spheres. At this age, the pace of physical development accelerates in children, they experience such processes as height growth, body weight gain, the formation of the muscular and skeletal system, and the activation of the hormonal system. This creates certain differences in the development of boys and girls. At this age, boys experience rapid development of muscle mass, an increase in body weight and height. As a result of the activation of the hormonal system, they become stronger, more resilient and more active, and are interested in sports, especially those that require strength and endurance, such as wrestling, football, swimming and athletics. Boys like to test their physical capabilities and compete with others. Therefore, it is necessary to gradually increase the load and intensity of training for boys of this age, and to organize the physical education process in accordance with the development of their muscular and skeletal systems. In girls, this period is physiologically more complicated. Their bodies undergo hormonal changes, changes in body shape, weight gain, and the formation of a figure. Girls are usually inclined to aesthetic movements, namely sports such as gymnastics, dancing, tennis, and swimming. For them, physical activity is a means of forming a beautiful figure, improving overall health, and stabilizing their mental state. The psychological state of girls at this age is also sensitive, and their attitude to physical exertion, motivation, and mood play an important role in the training process. Due to the differences in the physical development of boys and girls, an individual approach is required. A training plan should be drawn up taking into account the body structure, development rate, health, and interests of each child. Some boys may be very active and strong, while others may be sluggish.



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Similarly, some girls may be very interested in sports, while others may only want to participate in health-improving activities. Therefore, coaches and teachers must work with each child individually, correctly assess their physical and mental capabilities, and organize activities according to their needs and interests. Another important aspect is timely and proper nutrition. Since children aged 13–14 have a high metabolic rate, their diet should be rich in energy, protein, fat and carbohydrates, as well as vitamins and minerals. For children involved in sports, special diets should be drawn up and a diet before and after training should be determined. It is also very important to assess and monitor the physical development of young people. It is necessary to determine the level of development of children through anthropometric measurements, examination of functional indicators of the heart and respiratory system, and physical fitness tests. This will help maintain their health and consistently manage their physical development. The activity of parents and teachers in this process is also of great importance. Teaching children a healthy lifestyle, increasing their interest in physical activity and sports, and creating comfortable and safe conditions for them are the main tasks of parents and teachers. When organizing physical education classes and sports clubs, taking into account the age and physical characteristics of children and organizing training processes based on an individual approach to them has a positive effect on their health and physical development. In conclusion, the physical development of boys and girls aged 13–14 has its own differences, and the importance of an individual approach in this process is very great. Properly organized physical education not only helps to strengthen their health, but also helps them grow up as fully developed individuals.

The main factor in this is the cooperation of parents, teachers, doctors and coaches. An individual approach in the process of physical development not only improves the quality of the training process, but also helps to increase the child's self-confidence, strengthen his health, form movement skills and correctly direct his physical capabilities. Since each child has its own physiological and psychological characteristics, it is important that physical education and sports activities are adapted to their individual needs and capabilities. During adolescence, the hormonal system of the body is activated, the bone and muscular system is formed, and the functional capabilities of the cardiovascular system and respiratory organs increase. At the same time, psychological changes also occur at this age, that is, the child reconsiders his attitude towards himself, others and society. Therefore, physical education and sports activities during this period are important as a means of stabilizing not only physical health, but also mental state. The development of girls at this age usually begins earlier than that of boys, and they begin to feel changes in their body shape more quickly. This situation has a significant impact on their psychological state, that is, their self-esteem, mood, and attitude towards their appearance change. Therefore, physical education for girls of this age should be not only a means of improving health, but also a factor in ensuring mental stability. Boys, on the other hand, are more inclined to increase physical strength, agility and endurance during this period. For them, when choosing sports, exercises that allow them to test their competitive spirit and physical capabilities are preferable. It is also important to develop and implement a set of exercises for both sexes aimed at increasing physical activity, maintaining a high level of health, and preventing imbalances in physical development. Since the development process of boys and girls at this age is different, it is necessary to regularly monitor their physical fitness and health. Because the adolescent body is variable, and the individual development rate and physiological characteristics of each child are different. In some children, this process begins early and develops rapidly, while in others it may take longer and be slower. Therefore, it is necessary to work with each child individually, taking into account their physical and mental needs. In the process of physical development, various methods are used to assess the condition of children, including anthropometric measurements, heart rate, blood pressure, respiratory rate, and the level of adaptation to training. During training, it is necessary to avoid overloading the child's body, adapt the exercises to their age and physical condition, gradually increase the load, and pay attention to periods of rest and recovery. Physical exercise strengthens not only the musculoskeletal system, but also the cardiovascular and respiratory systems. At the same time, it develops coordination of movements, speed, agility, balance, endurance and movement culture in children. For children of teenage age, activities such as outdoor activities, sports games, swimming,



cycling, running are extremely useful. For girls, aesthetic movements, dancing, gymnastics, aerobics are interesting and useful, contributing to their overall physical development, the correct formation of the figure, and the stable functioning of the heart and respiratory systems. For boys, wrestling, football, basketball, swimming, track and field and horizontal bar exercises help increase physical strength, endurance and agility. At the same time, for both sexes, morning physical education, healthy running, general developmental exercises and walks in nature are important in forming a healthy lifestyle. It is also necessary to take into account the mental state of children in the process of physical development.

Because at this age, children's self-confidence, attitude to their appearance, and the need to compare themselves with their peers increase. If they lag behind in physical development or feel weaker than others, this can negatively affect their mental state. Therefore, it is important to encourage children in the process of physical education, instill a sense of success in them, and recognize every small achievement. The role of proper nutrition in the health and physical development of children is also invaluable. The diet of 13-14-year-old children should be balanced, with a sufficient amount of protein, fat, carbohydrates, vitamins, and minerals. Especially for children involved in sports, foods rich in protein, calcium, magnesium, and iron are very necessary. Because the lack of these substances has a negative effect on the development of bones and muscle strengthening. It is recommended to eat light and healthy meals before and after training, limit sweet and fatty foods, and give preference to fruits and vegetables, dairy products, fish and meat dishes. The child's sleep and rest regime also play an important role in the process of physical development. Full sleep and sufficient rest ensure the child's recovery, maintaining activity in training, and healthy development of the body. Therefore, children are recommended to go to bed early in the evening, limit phone and computer games, and spend their leisure time outdoors. During training, it is necessary to organize moments of rest and recovery according to the child's capabilities. Parents and teachers should monitor the child's physical and mental condition in this process, consult with doctors and specialists if necessary, encourage the child, and provide him with constant help and support. After all, physical health and mental stability are equally important for a teenager. A properly organized physical education process not only brings up a healthy and resilient generation, but also serves as the basis for determining their future social life, work activities, and personal happiness.

Conclusion

In conclusion, the physical development of boys and girls aged 13–14 is a complex and individual process, during which important physiological and psychological changes occur in the body. It is extremely important to organize the physical education process, taking into account gender differences, the pace of development and the characteristics of each child's body, and to adapt training loads to age and individual capabilities. Also, in the process of physical development, healthy nutrition, proper sleep, regular rest and health-improving activities serve as a key factor in strengthening children's health and raising a harmonious generation. Taking into account the mental state, increasing children's self-confidence, and forming a sense of success and satisfaction in them through physical activity are also an integral part of the physical education process. Ensuring the physical and mental development of children, based on the mutual cooperation of parents, teachers, and mentors, and taking into account their individual needs, is a guarantee of raising a healthy, resilient, and comprehensively developed young generation.

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