



## STUDIES OF THE PHYSICAL DEVELOPMENT OF TEENAGE STUDENTS REVIEW

Khaydarov Shokhruh Tulkin ugli

Assistant of the Department of Physiology

Uzbek State University of Physical Culture and Sports, Chirchik, Uzbekistan

Asatillaev Jakhongir Nematjon ugli

Assistant of the Department of Physiology

Uzbek State University of Physical Culture and Sports, Chirchik, Uzbekistan

Siddikova Maftunabonu Alisher kizi

Assistant of the Department of Physiology

Uzbek State University of Physical Culture and Sports, Chirchik, Uzbekistan

### Annotation

Physical development plays an important role in maintaining the health of the individual. Deviations from its normal level can hide various diseases. Underestimation of these deviations can affect the health of adolescents not only during vocational training, but also in their future work. Timely detection of deviations in the physical development of adolescents and their correction increase the level of health of the adult population.

**Keywords.** Physical development, adolescents, learning conditions

The study of the state of health of adolescents, in addition to determining the level of physical development, includes a study of the activities of the leading systems of the body, features of functional and psychophysical development. The physical development of children and adolescents reflects the level of health of the population and is a reliable information indicator of the sanitary and epidemiological well-being of the population. Most authors who have studied the differences in body size of children in the Russian Federation associated with territorial factors attribute physical development to direct indicators of health [8,9,12].

The level and dynamics of physical development are closely related to the socio-economic and hygienic conditions of life of children and adolescents [1,2,7]. It was revealed that in the Russian Federation 24.9% of students have physical development disorders. Among schoolchildren with inharmonious development, children with a lack of body weight (35%) and a delay in physical development (40.2%) predominate. Deviations in physical development are more often observed among students of specialized classes ( $P < 0.05$ ) [6].

Indicators of the physical development of children and adolescents are closely related to the conditions of upbringing and education: the quality of nutrition, physical culture, and environmental factors. One of the most important areas of fundamental research in the field of human ecology and environmental hygiene is the study of the influence of social and hygienic factors on the state of public health [6].



The available data indicate that there are differences in the indicators of physical development of children belonging to different nationalities, even those born and living in the same climatic and economic conditions, since biological signs, which include indicators of physical development, body type, body proportions and other features reveal some originality [9].

In the Russian Federation and the Republic of Uzbekistan, the state of physical development and health of students of schools and colleges of vocational education at the age of 14-17 years was studied against the background of qualitatively different nutrition. Against the background of actual nutrition (insufficient content of animal proteins, essential amino acids, vitamins and calcium), 22% of adolescents were developed disharmoniously [3].

The modern methodological base of physical education and motor modes in school educational institutions is a necessary condition for the harmonious development of children and the preservation of their health.

A dynamic study of the physical development of children involved in physical culture according to the experimental program, and students of educational complexes engaged in the elementary school program and in the pool, revealed positive changes in somatometric and physiometric indicators. However, in children of the experimental group, the average increase in anthropometric indicators was significantly higher: body weight was almost 4 times, chest excursions - 12 times, lung capacity - 2 times, muscle strength of the hands - 7 times [9]

The health indicators of 330 male adolescents aged 14-17 years old, living near oil refineries, were studied. The study showed that most of the adolescents had deviations in physical development and belonged to the II health group - (29.0%). In addition, asthenic and hypertonic types of reaction to dosed physical activity were established in 20%; this was facilitated by unfavorable environmental living conditions, malnutrition and low physical activity [8].

Over the 20-year observation period (60-80s), the number of young men with a normal ratio of body height to overweight decreased from 82.8% to 79.8% (from 10.2% to 6.6%), at the same time increased (from 7.0 to 13.6%) the number of young men with low body weight. In the 1990s, the number of adolescents with low body weight increased (by 6.4%). Along with a decrease in the parameters of growth and body weight, there is a decrease in the absolute values of physical development and functional capabilities of the body [13,15].

About 40% of young people of military age in terms of physical and mental development are not able to adapt to the stresses of military service [5].

An analysis of the physical development of students in educational institutions of various types revealed an increase in the number of children with harmonious physical development, as well as a decrease in the number of children with disharmonious physical development. At the same time, in the classical gymnasium, the number of children with harmonious development decreased by 3% and the number of students with sharply disharmonious development increased by 12% [3,15,16].

In the Republic of Uzbekistan, a study was made of the characteristics of the growth and development of children aged 7-17 years. It has been established that schoolchildren living in regional cities and rural areas of the republic, identified in 1960-1980. acceleration of the physical development of school-



age children in 1990-2000. practically stopped, and even a decrease in the values of somatometric indicators was revealed [13,16].

Health is an important condition for the harmonious physical development of schoolchildren. The issue of priority between physical development, health status and morbidity is highly controversial.

Chronic diseases, which are often the cause of various disorders of physical development, especially in children and adolescents, lead to a decrease in body size, defects in the musculoskeletal system (violation of posture, shape of the chest, legs, feet). At the same time, favorable socio-economic and sanitary-hygienic living conditions improve physical development, reduce the incidence of children and adolescents. The main reasons that negatively affect the health of people, including children and adolescents, are a decrease in the standard of living of a significant part of the population, stress, a decrease in the general level of culture, including sanitary and hygienic, the spread of bad habits, and an unhealthy lifestyle. An unfavorable ecological situation and atmospheric air pollution also lead to an increase in diseases [3,6,17,18].

A significant part of the population, especially in large cities, is under the influence of elevated concentrations of harmful substances compared to hygienic standards. As a result, many industrial cities still have a high incidence of bronchial asthma in children, which is a sensitive biological marker of air pollution [4].

Preservation of health and prevention of morbidity in adolescents are becoming the tasks of not only healthcare, but also education [2,6,9,11,14].

In this regard, the most important task of health care and education in the Republic of Uzbekistan is to study the characteristics of the physical development of students associated with regional environmental factors. This will allow developing and implementing regional programs to improve their health.

## Literature

1. Аг-оол Е.М. Исследование физического развития подростков Республики Тыва // Гигиена и санитария. - М., 2008. - №1. - С. 67-70
2. Алимов А.В., Тухтаева О.Т., Коцанова Г.А. Физическое развитие учащихся в критические школьные годы // Педиатрия Узбекистана: реформирование и стратегия развития: сборник тезисов Республиканской научно-практической конференции (4-6 октября 2007 г., г. Ташкент). - Ташкент, 2007. - Том 1. - С. 47-48
3. Алимухамедов Д.Ш. Гигиеническая оценка фактического питания детей школьного возраста и подростков, страдающих железодефицитной анемией, проживающих в сельской местности // Патология. - Т., 2005. - №1. - С. 87-90
4. Ан Р., Булавин В.В. Оценка влияния факторов внешней среды на состояние здоровья подростков, допризывников и призывников Волгоградской области // Медицинская помощь. - М., 2003. - №4. - С. 46-47
5. Бахритдинов Ш.С., Алимова Р.Р., Гулямова Ш.Х. и др. Показатели физического развития и заболеваемости учащихся школ профтехобразования на фоне различного питания // Матер.



- УП съезда гигиенистов, санитарных врачей, эпидемиологов и инфекционистов Республики Узбекистан. - Ташкент, 2000. - С. 79
6. Зайцев Л.Г. Формирование здорового образа жизни молодого поколения.// Пробл.соц.гиг., здравоохр. и ист. медицины. 2005.-№1.-С.51-53
  7. Закирова Н.Б. Организация исследований развития подростков в г. Ташкенте // Педиатрия Узбекистана: реформирование и стратегия развития: сборник тезисов Республиканской научно-практической конференции (4-6 октября 2007 г., г. Ташкент). - Ташкент, 2007. - Том 1. - С. 116-117
  8. Закоркина Н.А. Физическое состояние 17-летних подростков в Омской области // Проблемы социальной гигиены, здравоохранения и истории медицины. - М., 2006. - №4. - С. 22-25
  9. Иргашева С.У. Особенности полового созревания и состояние здоровья девочек-подростков в различных регионах Республики Узбекистан : научное издание // Педиатрия. - Т., 2005. - №3-4. - С. 71-73
  10. Искандарова Ш.Т., Кувандыкова Д.Э. Физическое развитие и заболеваемость подростков, проживающих в Ташкенте // Педиатрия (узб.). - Ташкент, 2003. - №2. - С. 10-12
  11. Камаев И.А., Павлычева Л.И., Васильева О.Л. Социально-гигиенические особенности организации учебного процесса и режима дня старшеклассников лицеев. // Гиг. и сан.-2003.-№5.-С.45-46
  12. Камилова Р.Т. Многолетняя динамика роста и развития учащихся, проживающих в условиях Узбекистана // Бюл. ассоциации врачей Узб. - Т., 2003. - №3. - С. 98-100
  13. Камилова Р.Т., Ниязова Г.Т. Социально-гигиенические условия детей школьного возраста г. Нукуса Республики Каракалпакстан.// Аспирант и соискатель-(Москва).- 2007.-№2.-С.137-142
  14. Киек О.В., Засорин Б.В., Боев В.М. Комплексная оценка физического развития мальчиков школьного возраста в условиях промышленного города. // Гиг. и сан.-2000.-№1.-С.74-76
  15. Киямова Н.И., Исламова Н. М., Чернышева Ф. А. и др. Особенности физического развития девочек с различным уровнем половой зрелости // Теория и практика физической культуры. - Москва, 2009. - №11. - С. 62-64
  16. Кучма В.Р., Милушкина О.Ю. Подходы к оценке уровня санитарно-эпидемиологического благополучия образовательных учреждений для детей и подростков // Гиг. и сан.-2004.-№3.-С.47-50
  17. Рахманов Р.С., Нестеренко А.В. О роли двигательной – активной формы обучения в формировании образа жизни, сохранении и укреплении здоровья школьников. // Гиг. и сан.-2005.-№1.-С.43-45
  18. Ямпольская Ю.А., Година Е.З. Состояние, тенденции и прогноз физического развития детей и подростков России // Рос. педиатр. журн. - М., 2005. - №2. - С. 30-39.