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STUDY OF PHYSICAL DEVELOPMENT AND FUNCTIONAL STATE OF SCHOOLCHILDREN'S ORGANISM

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Abstract
Indicators of physical development are the most objective and reliable criteria for the favorable or unfavorable influence of various factors on the growth and development of the body. The physical development of a person is assessed, first of all, by the state of the musculoskeletal system, correlating body length (height), and weight and chest circumference.
We set the following goal: to study the physical development and functional state of 14-15 year old schoolchildren.

Keywords: healthy lifestyle, physical development, functional state, somatometric indices medical scales.

Introduction

Currently, the state pays great attention to the health of the younger generation.
Health is a state of complete physical, spiritual and social well-being, one of the undoubted values of every person and society as a whole. Health is formed under the influence of a complex set of internal factors (such as heredity, the state of the immune system, psycho-emotional state) and external influences (such as the state of the environment, a healthy lifestyle, social well-being) [1-4].
It is believed that the physical and mental development of children and adolescents is an indicator of their state of health.

The Main Part

Indicators of physical development are the most objective and reliable criteria for the favorable or unfavorable influence of various factors on the growth and development of the body. The physical development of a person is assessed, first of all, by the state of the musculoskeletal system, correlating body length (height), weight and chest circumference [5-11].

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We set the following goal: to study the physical development and functional state of 14-15 year old schoolchildren.

Tasks

– The study of methods for determining the physical development of a person.
– Application of the studied methods to determine the physical development of schoolchildren.
– Making recommendations for improving physical development.

Equipment: stadiometer; tape measure; medical scales; stopwatch. The physical development of children and adolescents is one of the most important indicators of health and well-being. Systematic monitoring of the physical development of the same children is necessary for an individual assessment of their development. I reviewed several methods and chose, in my opinion, the most interesting.

1. Methods for determining the physical development of a person**.**

A) Measure the length of the body (standing height) [12-19].

The measurement is made using a stadiometer. The subject stood with his back to the vertical stand of the height meter. The heels, buttocks, meneloscapular region and the back of the head touched the vertical plane. The head was placed in such a position that the lower edge of the buttock and the upper edge of the ear tragus were on the same horizontal line. The sliding bar of the stadiometer was lowered until it came into contact with the head.

B) Measure the circumference of the chest.

The measurement is made with a centimeter tape in three states: during quiet breathing (in a pause), in the positions of maximum inhalation and maximum exhalation. When applying the tape, the subject moved his arms to the sides, and then lowered them. On the back, the tape passed under the lower angles of the shoulder blades, in front - from the area of the nipple line. Then, without removing the tape, the circumference of the chest was measured at maximum inhalation and maximum exhalation. After that, the difference between the values of the circles for inhalation and exhalation was calculated [20-29].

C) Measure the weight (mass) of the body.

Measurement is made on medical scales.

D) Calculate somatometric indices.

Determination of body strength according to the Pinier index (IP).

Pinier index \u003d height (cm) - weight (kg) - approx. gr. class on exhalation (cm).

Pinier index:

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less than 10 characterizes - a strong physique;
– less than 10-20 characterizes - a good physique;
– less than 21-25 characterizes - average physique;
– less than 26-35 characterizes - a weak physique;
– 36 or more characterizes a very weak physique.

Using the table, determine the dimensional "categories" into which the obtained values of the indicators fall.

Table - Categories of indicators of physical development. The columns of the table indicate the right boundaries of the "corridors" of values; values greater than the right border of the 6th "corridor" are considered as part of the 7th category [30-34].

Physical development is one of the indicators of human health. Health is an invaluable asset not only for each person, but for the whole society. When meeting, parting with close and dear people, we wish them good and good health, as this is the main condition and guarantee of a full and happy life. Health helps us fulfill our plans, successfully solve the main life tasks, overcome difficulties, and, if necessary, significant overloads. Good health wisely preserved and strengthened by man himself ensures him a long and active life. The following recommendations have been developed for schoolchildren.

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