

THE PHYSIOLOGICAL VALUE OF INDIVIDUAL TESTS THAT ASSESS THE QUALITY OF MOVEMENT

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Abstract. *The article describes the physiological value of behavioral tests used in the learning process, which not only provides an objective assessment of physical qualities, but also reveals the functionality of the children involved in these tests. This approach allows you to organize physical and functional training according to the specifics of your sport.*

Keywords: *training particle, growth of physical training, particle size, physical developing, planning, functional researches, quickness, selection, organizing trainings, methods and means.*

Tensions between the competition and the steady growth of results in modern sporting events require a new scientific approach to the training process. In this regard, the proper selection and application of tests to assess fitness is of particular importance. It is well-known that the training of qualified athletes goes from selection and pre-training to the development of sports skills.

Over the years, athletes will adapt to increased workload and intensity exercises in the direction of wave. The formation of physical and technical skills is regularly monitored throughout the year by various tests. Such events are officially included in all training programs. However, the physiological (bio energetic) potential of these tests, both in these programs and in sports practice, goes unnoticed.

Many scientific and educational literature have described in detail the physiological basis of physical attributes and their bio energetic value. However, there is virtually no official scientific data that reflect the physiological value of regulatory tests that assess the extent to which these qualities are developed, although it is important to know their physiological value when using motion tests.

The purpose of this work is to use a series of rapid tests to determine the degree of force development (running 30m, jumping off the ground, vertical jump for 20 seconds) to study the physiological value of 9-10-year-old volleyball players (breathing). (Frequency - RCC, heart rate - HFD, lung capacity - PTS).

As shown in Table 1, children who are just beginning to play volleyball are more likely to have poorer physical abilities than those who start other sports. For example, it was found that if running 30m was 6.7 seconds, volleyball was 5.4 seconds, and handball was 5.6 seconds. Even jumping from place to place is not enough for our 9-10 year-old testers compared to other young athletes. One of the reasons for this is that, in our opinion, there were not so many children who took part in the qualifying rounds when qualifying for a volleyball club.

Table 1

Tests	Results	Physiological value		
		RCC (minute)	HFD (minute)	PTS (millisecond)
Running 30m	6,7±1,9	<u>17,2±2,3</u> 31,1±4,1	<u>78,6±3,2</u> 144,0±6,1	<u>1281,6±26,7</u> 1342,3±29,3
Jumping off the ground	145,2±4,6	<u>18,3±3,4</u> 19,7±3,7	<u>77,4±4,2</u> 86,3±5,1	<u>1132,0±19,3</u> 1149,0±17,7
Vertical jump for 20seconds	13,4±0,8	<u>18,7±4,1</u> 34,5±4,7	<u>79,7±5,1</u> 152,0±6,3	<u>1153,2±21,5</u> 1467,3±23,7

This means that there is no competition in the selection process, as well as a poor explanation of the selection criteria for children participating in the competition, or failure to follow the rules of the test (the use of a stopwatch, the precise timing of the jump, the stopwatch, etc.) may be. In any case, according to local experts and coaches, children can be taken directly to sports clubs without the need for standardization.

In each case, we can assume that the average statistical value of the 20 children surveyed determines the physical abilities of these children. Determination of the physiological value of the indicators obtained for the evaluation of force - quality allowed to clarify this hypothesis. Specifically, the observed figures show that the result of running the children at 30m was 6.7 ± 1.9 seconds, and the physiological value of the speed of performance was distinct. So, before running to 30m, the breathing rate was 17.2 times per minute, and after running it increased to 31.1 times (the difference is 13.9 times). This means that children have an average of 13.9 times the O₂ run per 30m, which is almost twice as much O₂, and produce approximately as much CO₂.

The frequency of heart contraction was 78.6 times relatively quiet, and after 30 m running the rhythmic activity of the heart increased to 144.0. Consequently, the average pulsometric value of the 30m run is 65.4 times.

Lung capacity was 1218.6 ml before running, and by the end of the run this figure increased to 1342.3 ml. Obviously, even though the result of running up to 30 m indicates a poor quality of speed for children, the physiological results obtained indicate that the body responds to this short response. This reaction of the body indicates that anaerobic abilities in these children are not yet well formed.

The length jump from place to place was on average 145.2 ± 4.6 cm. Before doing this, the HOC was 18.3 times, only 19.7 times after the test. The HCC accelerated from 77.3 times to 86.3 times / minute. The CTS remained virtually unchanged (1132.0-1149.0 ml).

A vertical jump test for 20 seconds one by one in a single location is a test for children under test, showing them a natural lack of experience. Testing techniques were out of demand, and the number and speed of jumps were not good. It is true that in some children the vertical jump is about 15-17 times in a single position for 20 seconds.

However, the average statistic was 13.4 ± 0.8 , which means that this jump was not adequately assessed by the children being tested. However, this test jump is a complex structure of movement skills in its structure, and its ability to perform quickly and efficiently, even in highly trained athletes, is not. Therefore, this test, performed in 13.4 times in 20 seconds, had a dramatic effect on the body of the child and greatly stimulated the tested functional performance.

In other words, although low-volume and low-quality work is performed, it is evident that its physiological value is much greater. In particular, the NOOC was 18.7 times before the test and 34.5 times after the test. This means that the respiratory value of the work performed is 15.8 times. MCH is 79.7 - 152.0 times, and CNS 1153.2 ml - 1467.3 ml. It may be noted that the greatest physiological value test is the speed test - jumping in one place for 20 seconds is vertical.

From physiological data it is clear that the functional readiness of the human body is inextricably linked to its physical capabilities. The more functional reserve (or bio energetic potential) the body has, the greater the capacity to handle workloads. However, functional backup does not come about by itself. On the contrary, there is a need to systematize the level of physical traits that are present at the expense of higher loads. Only then can the expected functional reserve fund be collected. The results obtained and their comparative analysis lead to the conclusion that the physiological value of the behavioral tests used in the selection and training exercise is not only an objective assessment of the physical quality but also the functional readiness of the children involved in these tests. This approach allows you to organize physical and functional training according to the specifics of your sport.

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