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MODERN PROBLEMS OF DETERMINING THE PHYSICAL WORKING CAPACITY OF ATHLETES

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Abstract:

The physical working capacity of athletes is a comprehensive concept, the determination of this indicator allows to study the level of physical activity of the athlete, the level of exercise performed, the Sports form, as well as the individual physiological characteristics of the athlete's organism. It is possible to predict the results in their sport by determining the physical working capacity of those who are engaged in various sports, to predict the possible negative situations in the athlete, to constantly monitor the level of overall training of the athlete.

Keywords: Physical ability, Sports form, individual physiological characteristics, general preparation.

INTRODUCTION

It is known that the study of the concept of work capacity is closely related to the problem of the study of physical work capacity. Usually, many traditional and unconventional methods can be used when evaluating physical performance. When talking about functional methods of examination, it is understood that special methods of examination are used to assess the functional state of the organism and give it a characteristic. These methods can be used for the purpose of functional diagnostics, supporting a variety of views. Using these methods, it is possible to determine the physical working capacity at the time of physical loading of different capacities, as well as at the time of different functional states of the organism, to study the response reaction of the organism to the effects of physical loads of different sizes and specific capacities. These functional tests and verification methods can be identified in a calm state as well as directly during physical activity.

The concept of physical workmanship is described differently in different literature. In general, the concept of physical workmanship it is the amount of mechanical work performed for a long time and as much as its strength. In sports medicine, two types – general and special physical labor concepts are used. Special workmanship represents the ability of the athlete to work in the sport of his choice. The general and special workmanship of the athlete can vary quite a while. For example, if the overall performance of the employee is assessed high, then the indicators in special workmanship or sports may be low. In determining the physical fitness state and physical fitness of athletes, various functional tests are used (3, 12, 14).

MATERIALS AND METHODS

Currently, appropriate sizes have been developed for the survival capacity of the lungs, maximum ventilation of the lungs, oxygen absorption, heart size, electrocardiogram indicators, etc. To study the functions of breathing in determining these sizes, special tables and references have been developed.

It is worth paying attention to the fact that the sizes based on the developed calculations are expressed not in absolute figures, but in percentages relative to the norm. The functional significance of such numbers is more important. For example, in two athletes, the survival capacity of one lung of the same size equal to 5000 ml is 85% compared to the norm for one of them, while for another it can reach 125%. The functional significance of the same size is expressed in different ways in bunda. From this point of view-a coach or a medical professional can do something different with respect to these athletes. As a result of comparing the results obtained in practice with the size of the norm, the effect of engaging in sports activities, the presence of pathological changes in the nature of activity is studied (7, 8).

RESULTS AND DISCUSSION

In order to fully determine the functional properties of the work of systems and organs in the human body, various functional tests are carried out: physical loads with different characteristics, physical loads of different intensity

and volume, pharmacological tests, elementary or other tests, orthostatic tests, etc. In any functional test, changes in the work of different systems and members are studied.

Functional tests must meet certain requirements regardless of what they are: they must be dosed of the same type, which is based on a certain standard. Only in such conditions it is possible to study by comparing different data obtained in different people in different conditions, in different periods.

To assess the effect of the desired load on the body, of course, it is necessary to take into account the intensity and duration of the load. In people with a different functional state, there are quantitative differences, and not qualitative, in relation to the physical load. To assess the reaction to physical exertion in a person, it is necessary to know exactly the degree of loading. For example, an insignificant load given to a sick person can show the same indicators (heart rate or frequency of breathing) as a large-capacity load given to an athlete (11).

The size specified in the functional diagnostics, that is, the importance of the size of the norm is considered important. However, the use of many of these norms led them to excessive "improvement". This "improvement" is associated not only with the emphasis on anthropometric measurements in a person, but also with the consideration of several environmental-sociological OMES. The authors note that such established sizes and norms are more relevant for athletes, for some professions. This is determined by the specific effects on them.

With the help of the desired functional test, it is possible to check different indicators, these indicators represent the state of different systems and organs in a person's body. The degree of these changes expresses the degree of reaction as well as the haractin in relation to the factor affecting it. Similarly, the factors affecting both the indicators to be studied may differ depending on the issues before the functional examination. However, as already mentioned above, the causative factor should be strictly dosed.

The procedure for conducting functional tests will be as follows: the indicators, which must be checked at first, are studied in a calm state. Then the degree and characteristics of changes in these indicators are studied. Finally, the duration and peculiarities of the recovery period are analyzed during this period, the indicators on the controller return to their original state. In the following years, telemetry methods that are designed to study changes in a number of indicators either directly during functional testing or during physical loading are effectively used. This method is distinguished by the fact that it is effective even if not yet lit every integer. In this, changes in the time of physical activity can be directly observed. It should be said that before the wide application of this method, it is necessary to conduct a number of research and observation work (6, 7, 9, 15).

It should be noted that even in any of the above exercises, it is difficult to measure the amount of physical load with accurate doses. The exact and reliable dose of physical loading can be determined by the method of ergometry in a unit of measurement in Watts. Currently, different types of ergometers are developed. For example, arm arches or foot arches. In this case, the controller performs the load in a vertical or horizontal position. With this method, it is possible to determine the work performed by the controller at any time in Watt or kilogram-meter units of measurement.

In sports practice, in the field of Clinical Medicine, the method of veloergometry can now be widely used. This method is considered quite effective and allows you to give the desired size of the load an easy and accurate dosage.
In addition to these, there are also options for conducting functional tests with exercises performed on the tredban. Tredban-consists of a special tape that moves at a certain speed. The convenience of this method is that the checker runs or walks in the standing position, as a result of which there are options for recording the indicators directly during the performance of physical exercises (7, 12).

Functional tests related to changes in the conditions of the external environment, that is, instead of atmospheric air containing 21% oxygen, which is checked in breathing or hypoxymic tests, breathe with a mixture with a low oxygen content (for example, an air mixture containing up to 8-18% oxygen, depending on the purpose of the study). The purpose of hypoxic testing is to determine the reaction of various systems and organs to oxygen reduction in blood composition, that is, the response reaction of different organs to arterial hypoxemia is studied. With the help of these tests, the possibilities of adaptation of the organism to arterial hypoxemia, tissue under hypoxemic conditions and compensatory reactions occurring in them are determined. By analyzing the results obtained from these tests, it is possible to fully assess the functional state of the organism.

When artificially reducing the amount of oxygen in the Arterial blood, various methods can be used. The content of these methods is that, as an example, the verifier breathes in a closed place, in which the carbon dioxide-absorbing system is added, with each breath of the verifier, the oxygen content in this closed place decreases. In this way, the amount of oxygen in the inhaled air decreases, and arterial hypoxemia occurs.

It should be noted that when determining the ability to perform physical work, one of the main tasks is to study and take into account the taste of the factors that affect it. Among the factors that affect the physical performance of the athlete, it is possible to include water, air, sun exposure treatments, various special exercises, physiotherapeutic procedures, rational nutrition, etc. The factor of nutrition in these is the main one, we will not be mistaken if we say. Many authors have conducted studies in this regard, and the general result of these studies shows that it is possible to increase and manage the physical performance of an athlete with the help of the nutrition factor (3, 5, 15).

CONCLUSION

Physical work capacity can be described as the manifestation of a person's maximum potential ability in a situational, dynamic and mixed working environment. When determining the ability to work physically, the functional characteristics of all systems in the body are taken into account. The ability to work physically at this or that level is the sum of the functions of various systems in the body. This is why it is possible to determine the impact of this or that system on the ability to work at that or that level. Because the failure of one system or member to operate adequately is compensated by other systems. It goes here not about the level of training or the special working capacity of athletes, but about the general working capacity that belongs to each person. Usually the concepts of physical working capacity and the level of training do not mean the same. For this reason, it would be wrong to think that the results in sports will be better if only the physical work capacity is higher. In other words, although the level of exercise always leads to a high level of working capacity, however, high working capacity does not always correspond to the level of exercise performed at a high level (7).

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