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PHYSICAL QUALITIES AND THEIR ESSENCE

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ABSTRACT:

One of the main tasks of our time is to bring up a physically fit, morally pure, aesthetically pleasing, faithful, loyal, well-versed in the modern basics of technical science, comprehensively spiritually mature, physically harmoniously developed. Even now, this program has not lost its relevance. It is the core of the "For a Healthy Generation" program implemented in our country.

KEYWORDS: physical training, strength, speed, endurance, muscle, homeland, defense, man, agility, flexibility, spirituality, aesthetic taste, faith, loyalty, physically fit, morally pure.

INTRODUCTION:

Historically, existing physical education systems have been evaluated on the basis of a person's ability to cultivate physical (movement) qualities. Strength, speed, endurance, agility, joint mobility and muscle flexibility, which are formed in different levels in the human body, are called physical qualities. Depending on how the human body can display these qualities, an individual can be strong, agile, agile, and so on rated. These qualities have a dimension, the indicators of which are called indicators of physical fitness, and through which the individual's readiness for creative work and defense of the homeland is determined. For example, an individual can sit with a barbell weighing 100 kg on his shoulder only 3 times, while another can sit more than 5 times with the same weight. The quality of the strength of the second partner is considered to be improved, as he performed this exercise more than twice. This quality depends not only on the development of tissues, cells, etc. of bones, muscles and other organs of the body, but also on the spiritual qualities. Therefore, the education of the qualities of movement is closely linked with the work of cultivating the spiritual qualities and serves as a tool for this direction of education.

Striving to cultivate the qualities of action is an age-old dream of mankind. The effectiveness of the treatment of weapons, military equipment and ammunition raises the question of the need for education, which depends on the physical qualities that nature bestows on man and that can be developed in the process of upbringing.

One of the main tasks of our time has always been to bring up a physically fit, morally pure, aesthetically pleasing, faithful, loyal, well-versed in the modern foundations of technical science, comprehensively spiritually mature, physically harmoniously developed. Even now, this program has not lost its relevance. It is the core of the "For a Healthy Generation" program implemented in our country.

In conclusion, the high importance and significance of physical education, in particular, the development of physical qualities, is obvious. It should be noted that the development of physical qualities requires the integration of all of them (strength, speed, agility, endurance, etc.). However, in a particular sport, a certain quality is formed and

developed more strongly, and it is manifested as a leading quality of movement. Other qualities are also relatively developed, but they can be manifested in the form of auxiliary, auxiliary quality of action. For example, in sports basketball is considered to develop mainly the quality of agility, while speed develops as an auxiliary quality. But basketball is also a key tool in cultivating endurance. In weightlifting, the physical quality of strength is the leading quality. Exercising a lot of "jerking" develops speed. In practice, we see that through these exercises, endurance and flexibility also develop as an auxiliary physical quality. In general, it is advisable to use more games to develop agility: volleyball, basketball, football, tennis, table tennis, handball, hockey, rugby and others. In fact, the importance of speed for these games is not secondary. The development of agility is the ability to adapt to the rapidly changing conditions of the game, to be observant, to hit the target, to be clear, to stop, to feel it and to adapt one's actions to this situation in a short period of time. The formation of vitally necessary practical action skills such as acquisition. Cycling and mobile games also develop agility.

Any action is focused on solving a task called a specific action task. For example, jump as high as possible, catch the ball, deceive the opponent, lift the barbell, etc. The complexity of the movement task, the requirements for the coherence of actions performed simultaneously and sequentially, fosters coordination of movements. The coordination complexity of movements is the first measure of agility. If the spatial, temporal, and force characteristics of the motion correspond to the motion function, the motion becomes sufficiently precise, and the motion functions give rise to the concept of motion accuracy. Let's get acquainted with the method of developing agility. First, the development of agility involves the development of coordination, the ability to perform complex actions, and secondly, the ability to adapt to the changing circumstances of the movement. This requires a clear understanding of their movements in space and time, which are necessary for agility, the ability to make stable movements, if necessary, to maintain balance, to alternate exertion and relaxation of muscles, or, conversely, to tighten muscles. It is important to selectively improve the ability and other similar features. So "agility" is the sum of the total set of coordination of actions. The main way to develop and nurture agility is to form new a variety of movement skills and abilities. This leads to an increase in the reserve of motor skills and has an effective effect on the functional capabilities of motion analyzers. It is good that the acquisition of new movements is continuous. Even if it is planned to learn new movements over a long period of time, students are encouraged to do exercises they are unfamiliar with from time to time. Because if you do not master new movements (exercises), it will be difficult to train the trainee. It is not necessary to fully master such exercises, as it is necessary for the participants to feel some new movements. Such small movements are usually included in the training process on days set aside for active recreation. Any voluntary movement can be used as an ability to learn new movements in the development of agility, but they are studied only because they are new elements in the exercise. As skills become more automated, the importance of this exercise as a means of developing agility decreases. The ability to quickly and purposefully reorganize the movement, the ability to respond immediately to the effects of sudden changes in the environment, indicates the development of agility. At the same time there is a change in the load, increasing the load, aimed at developing

agility, increases the coordination difficulties for trainees. The coordination challenges they have to overcome are divided into three groups:

1) Difficulties in achieving accuracy of movements;
2) Difficulties in their adaptation:
3) Sudden, short, changing conditions.

In order to easily solve the difficulties noted in practice, L.P. Matveev's method of training agility is widely used:

1) Use of abnormal, unusual starting position (long jumps with the back in the required direction, etc.).
2) Perform the exercise facing the mirror (throwing the disc with the left hand or hitting the boxer from the left side).
3) Changing the speed and velocity of movements (for example, performing exercises in an accelerated manner or slowing down).
4) Changing the boundaries of the exercises in space (for example, throwing projectiles from a small circle or using sports with a reduced field level, because a large area is not convenient to demonstrate agility over a narrow area; height in different ways: back, front , sideways, spinning, jumping, etc.).
5) Complicate the exercises by adding additional movements (for example, jumping with additional turns before landing, leaning, etc.).
6) Perform unfamiliar exercises in an unknown way without prior planning (for example, a competition to perform gymnastic combinations as soon as you see and teach them, and so on).
7) Changing the resistance of participants in pairs and groups (for example, using different tactical combinations in games, changing partners frequently during the exercise).

One of the relatively special qualities of agility is the study and improvement of the ability to rationally relax muscles. Every movement is, in a sense, the result of muscle movement and relaxation. Like movement, knowing how to relax (the right muscle, at the right time) plays an important role in the effective performance of any movement. The tension of a group of muscles that need to be temporarily relaxed in order to perform a movement smoothly eliminates the flexibility (suffocation) required to perform the movement.

It is divided into two groups, as it occurs through mental and muscular tension if we are not able to perform the movement suffocating and freely. Mental stress is mainly caused by emotional factors (seeing a strong opponent, competitive environment, spectators, etc.) and has a negative impact not only on agility, but also on other functional and physical qualities of the body. This manifests itself in the inability to concentrate, delays in making changes in the structure of activities, disruption of the sequence of actions, and so on. You can find the necessary information in the subject "Sports Psychology" on how to deal with these inconveniences. Mental tension is definitely accompanied by the occurrence of muscle tension.

Muscle tension occurs for various reasons and manifests itself in the following three forms: a) muscle tension due to increased muscle tone (hypermoiotonia); b) tension caused by too fast performance, when the muscle does not have time to relax and unwind; c) coordination, tension (caused by the presence of some excitability in the phase of muscle relaxation due to imperfect coordination).

Methods of overcoming muscle tension, which have a negative impact on the manifestation of agility, are studied through the sciences of

sports physiology and the theory of physical education.

Exercises that develop agility get tired quickly. When performing such exercises, the muscles need a very precise and high level of intuition, and when fatigue occurs, the exercise is less effective. Accordingly, the body uses rest intervals (intervals) when it is sufficient for a relatively complete recovery of spent energy. Performing exercises that increase agility after high-energy exercises gives unexpected results. The level of resistance to fatigue during exercise is called the quality of endurance. A person who performs physical work (sports activities) is slow. Gradually finds it difficult to continue its activities. Sweat begins to flow, redness of the face increases, the color changes, the muscles feel tired, the coordination of movements, the sequence of elements of the movement technique is disturbed, the depth of the rhythm of breathing changes. In the structure of the performed action additional unnecessary actions appear, are added. This is mainly due to physiological, biochemical and biomechanical changes in the body. Continuation of activity is done at the expense of spiritual, volitional and other qualities. This condition is called the phase of compensatory fatigue. If, despite the increase in the level of willpower, the intensity of work decreases, we observe the beginning of the phase of fatigue without compensation. It has been proven in practice that fatigue varies from person to person during the same activity. Because the development of endurance of each individual is different.

Much attention is paid to the issue of fatigue from the scientific heritage of our ancestor Abu Ali ibn Sina. In the Kitab ul Qanun fit Tib, which began to be written in the year one thousand and became a perfect historical scientific work in the year one thousand and twenty-four, he explained that chronic exercise causes fatigue and divided it into four types:

1) Wound fatigue - it feels like a sore on the skin on the face or under the skin.
2) Severe fatigue - in which a person feels heat and relaxation in the body, as if his body is crushed or crushed.
3) Swollen Fatigue - the body is redder than usual and feels like a rash.
4) Weight Loss Fatigue - the person who suffers from it feels drier and drier.

Durability is measured with and without tools. To measure endurance with a tool, it is recommended to run at a certain speed, as well as the time to catch the same intensity without loosening (until the speed begins to decrease). Therefore, it is very inconvenient to measure endurance directly. More non-instrumental measurements are used. In sports practice, endurance is assessed based on the amount of time spent running long distances (10,000 m; 20,000 m). on the other hand, it depends on the aerobic and anaerobic (oxygenated, oxygen-free) capabilities of the organism. The specificity of the beliefs of the breath is relatively low, they do not depend enough on the external form of action. Therefore, an athlete who increases his aerobic capacity with the help of running exercises will also benefit from his endurance in other activities, such as rowing, walking, cycling. For example, the coordination structure of walking and running movements and the characteristics of speed and strength often differ. The improvement in speed achieved through training does not have a positive or negative effect on the maximum speed of walking. That is, there is no "migration". Running speed did not affect walking speed change. However, it has been scientifically and practically proven that long-distance training can "move" with each other while walking and running at the same time. Therefore, if we consider the functional

capacity of the autonomic system of the athlete's body in the performance of coordination movements, the generalized case, conditionally speaking, and “vegetative" exercise opens up a favorable opportunity for "transition" (transition) of endurance. However, in each case, the absence of migration depends not only on the energy potential of the organism, all the qualitative features of the movement, but also on the nature of the coordination of motor skills.Solving specific tasks of general and special endurance requires the performance of the same amount of hard work, of the same size and to the greatest extent possible. It is necessary not to stop exercising, even when fatigue begins to turn into fatigue.

This places a high demand on the manifestation of mental readiness.

The development of endurance is carried out by cultivating a love of work, readiness to withstand heavy loads, as well as extreme fatigue. Athletes increase their endurance only when they feel more or less tired during training. This is reflected in the increase in endurance from the outside. Adaptation is determined by the amount of changes and the purpose, the degree of response in the body as a result of training loads.

Criteria and components of the load play an important role in cultivating resilience. If we pay attention to the fact that endurance develops during training, the athlete will feel a little tired, it is clear that endurance will not develop if recovery occurs after a very short time after exercise. When the workload is large and performed with a feeling of fatigue, the body begins to adapt to the load, and after a series of exercises, you can see an increase in endurance. Adaptation occurs through the degree of change in the body, the nature of the reaction to the load, the direction of its scale. Fatigue is not the same in different types of workload.

Breathing has been shown to play an important role in endurance. Accordingly, the correctness of the practice of deep breathing exercises, mainly through the nose, in the same rhythmic work has been proven. It is known that the breath, chest, abdomen (abdominal press) and mixed muscles - is obtained through the intervention of the diaphragm. Deep breathing through the mouth is recommended to maximize pulmonary ventilation during strenuous activity. The main focus should be on exhalation, as it is recommended to exhale sharply and deeply so that the oxygenated air in the lungs does not mix with fresh air. Modern methods of training endurance in highly qualified athletes recommend not only a single training, but also a large amount of work in the annual cycle of training.

For example, the famous French fighter Allen Mimun covered a total of 85,000 km during his career. In order to estimate it, given that the Earth's equator is 40,000 km, we must assume that it took Magellan 3 years to orbit it for the first time. Athletes can cover a distance of up to 100 km in a single training session.

We must not forget that in the training of endurance, only the length of the distance will lead to the wrong result. Because for a physically fit athlete, if he spends more time than 1.45.0 to run 800 m, the distance recorded for this runner will serve as a sprint distance. For a new learner, 3-3.5 minutes can play the role of a long distance. Speed is a set of functional characteristics that determine the speed characteristics of an individual's movements, mainly the time of the motor reaction. There are three main forms of velocity:

1) Individual movement speed (by overcoming small external resistance);
2) frequency of movements;

3) Speed of action reaction (latent latent period).

The manifestations of the simplest forms of speed are not related to each other. In particular, this depends on the reaction time, which in many cases is not correlated with the rate of movement. The manifestation of velocity can be determined from the generalization (combination) of the three mentioned forms.

For example, the result of running 100 m depends on the time of the reaction from the start, the speed of individual movements (depressing, the speed of the steps to quickly recover the number), and so on. In practice, the speed of the whole movement (running, swimming) depends on the speed of the whole act of movement. However, speed in complex coordination movements depends not only on the level of agility, but also on other factors, such as the length of the steps in running, which in turn, the length of the legs and the force of the step. Therefore, the speed of the whole movement is only a partial representation of the speed of the individual. In fact, we can only analyze the manifestations of the simplest forms of velocity.

1) phase of acceleration (acceleration, acceleration);
2) Phase of relative stabilization of velocity (acceleration at start).

The ability to increase speed and the ability to travel long distances at high speeds - one does not depend on the other in terms of speed. It has a very high starting speed and may not be able to run fast in the distance, or vice versa. The better the speed of the signals, the lower the frequency of movement.

Psychophysical mechanisms cause different manifestations of the nature of the speed response. We can clearly see this character of speed in short-distance running. The start (depending on the time characteristic) can be obtained quickly, but we can see that the speed can not be maintained at a long distance.

Running speed is related to the specified characteristic of the movement. In running, the length of a runner's stride depends on the length of his leg, which in turn depends on the strength of the runner's leg muscles. Therefore, it is very difficult to predict how a student will perform in a sprint, depending on the reaction of the movement over time.

The rule of "transfer" the quality of speed from one exercise to another is not observed. Its migration is manifested only in the close similarity of exercises in terms of coordination, and the higher the individual's exercise (engagement), the lower this migration (NG Ozolin)., 1949; VM Zatsiorskiy, 1961). Therefore, when we talk about the quality of agility, it is necessary to talk about the development of certain qualities of agility in human movement, not about educating this quality.

We can describe the speed of individual motion in a limited way by dividing the act of motion into biomechanical parts (parts). (For example, if it is necessary to determine the speed of depressing, it is determined by quickly raising the number while running). In some types of sports (for example, throwing), the speed of movement is generalized (combined) with the manifestation of muscle strength, and thus creates a complex feature of speed - sharp movement (sharpness). Therefore, speed - in sports that require strength, the development of speed of movement, especially exercises with high external resistance, plays a role as a means of developing muscle strength.

It is very difficult to develop speed due to pure, fast exercises, and it has been proven in practice that the speed of muscle movement can be increased only through strength exercises. The task of increasing the power capacity is solved very simply. The

development of strength must take place in the conditions of rapid action. To do this, they use the method of dynamic tension: the maximum force is applied to the load at full amplitude, at maximum speed, with a load that is less than normal for the practitioner.

Cyclic movements represent the frequency of motion. The maximum frequency of movement of the arms may be higher than that of the legs, the frequency of movement of the joints of the limbs may be higher than that of other organs and parts of the body.As a rule, the frequency of movement is measured over a short period of time. The frequency of movement of a sprint runner in a 100-meter run is determined by counting the number of steps he performs per second.

The development of the frequency of movement and, at the same time, the speed of cyclic movements is accomplished by performing exercises performed at maximum speed. Repetition, repetition, and variable exercises are used to develop the frequency and speed of movement. When using such methods, the running distance is chosen so that the speed does not decrease at the end of it and during repeated attempts of the runner.

Work performed at maximum intensity takes place under anaerobic conditions, so the rest interval between attempts should be set (set) to meet the need for oxygen. It is recommended to fill the gap with light jogging, quiet walking and more.

High levels of emotionality and agitation create the conditions for the manifestation of agility. In this case, the methods of games and competitions (from these methods we will learn about the methods of physical education) are expedient.

If the work is done quickly, when fatigue begins to appear, speed endurance develops, not maximum speed.

The age of the trainee and their individual characteristics limit their ability to develop speed. The optimal age for girls is 11-12 years, and for boys - 12-13 years. Repetition of exercises as a standard creates a "speed barrier" from an early age. It is more useful for small school-age children to use movement games, sports games for middle and high school-age children, and standard jogging.

The speed of reaction is measured in seconds and National Seconds. No special exercises are usually chosen as a tool to develop speed. A normal movement reaction can develop during the performance of various movements that require speed. At the same time, there is no "shift" of the reaction (movement), that is, it is difficult to develop the speed of movement with the development of the speed response. A variety of movement in the development of motor reaction, sports games are valuable as a tool, but basketball is their true leader.

The main method of training him is to be able to react as quickly as possible to emerging and emerging signals. The method of analytical approach, that is, the development of speed by distinguishing between movements in a relaxed environment and speed, also gives good results. Teacher’s signal, change the direction of running with the command) is developed with the help of exercises. Sports are the best way to react and nurture it.

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