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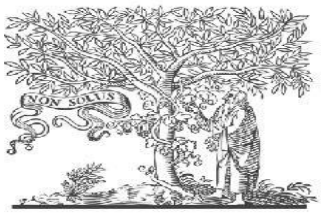

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Physical qualities and the importance of their development

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Abstract. Historically, existing physical education systems have been evaluated based on a person's ability to develop physical (movement) qualities. Strength, speed, endurance, agility, 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 measure, the indicators of which are called indicators of physical fitness, and the indicators determine the readiness of the individual for creative work and defense of the homeland, as well as its suitability for the sport.

Keywords. Physical attributes, person, movement, individual, labor, sport, homeland, endurance, basketball, distance, activity, agility, speed, strength.

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, 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 measure, the indicators of which are called indicators of physical fitness, and through these indicators determine the readiness of the individual for creative work and defense of the homeland, as well as its suitability for the sport. For example, an individual can sit with a barbell weighing 100 kg on his shoulders 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 connected with the work of cultivating the spiritual qualities and serves as a tool for this direction of education.

In the context of sports theory, we often come across the term physical attributes. Authors of special literature and a number of textbooks for the training of sports personnel LP Matviyev (1991), BA Ashmarin (1994), JK Kholodov (2003), Yu.M. Yunusova (2005), A.Abdullayev, Sh. Xonkeldiyev (2005), Yu.I. Yevseyev (2008) and others also called this concept action qualities. VMZatsiorsky (2009) defines physical qualities as "Physical (or movement) qualities, we understand certain aspects of human ability to move." LPMatveyev (1991) defines physical qualities as follows: "Physical qualities are born ma (inheritance in the form of genes) is understood as the qualities of morphological service, during which the physical activity (expression) necessary for the activity of movement in accordance with the purpose, which is preserved in the human body.

Physical qualities, called strength, agility, endurance, flexibility, and agility, are also relevant to other qualities (mental, functional, etc.), and their development is interdependent.

General physical fitness is defined as the development of physical qualities (strength, speed, endurance, agility, muscle flexibility, and joint mobility) in all respects. The rapid development of these qualities occurs during

the pre-school, junior, middle and senior school years of a person and then stabilizes.

The development of physical qualities requires interdependence. While some practice only for the purpose of improving their skills with a certain type of spot, the qualities of movement develop exactly what they need for that sport, but in practice they develop a relatively stronger one. Other qualities are also relatively developed, but they can play the role of auxiliary, auxiliary action quality. For example, basketball is considered to be a means of developing agility and endurance, while agility, speed and endurance are developed as auxiliary and complementary qualities. In fact, the sport of basketball is basically the main means of cultivating endurance movement quality.

The same can be said of other sports. In weightlifting, the physical quality of strength is the leading physical quality. Exercising a lot of squats improves speed. In practice, we see that through these exercises, endurance and flexibility also develop as auxiliary physical qualities. The quality of any movement is focused on solving a specific movement task (jumping as high as possible, catching the ball, deceiving an opponent, lifting a barbell, etc.). The complexity of the movement task fosters coordination of actions, creating requirements for the coherence of actions performed simultaneously and sequentially.

There are physical qualities that are considered the most important in different sports. They play an important role in the competition process.

Endurance is defined as “the ability to perform an action or act of action in a defined manner, in intensity, over a long period of time without reducing its effectiveness”. The quality of this movement is divided into "general" and "special" endurance.

Exercise to develop endurance can achieve the expected effect mainly by exercising when the body feels a little tired. In general, it is natural for the body to adapt to the actions performed after fatigue, and its termination (adaptation) indicates the level of development of endurance. In other words, it's a sign that endurance has improved to some degree. Sports that require a high level of endurance are "aerobic" - that is, when our body is working, it is doing physical work by delivering enough oxygen to its organs. Representatives of long-distance runners, rowers, cyclists and other sports require adequate oxygen because they have to show a high level of endurance in their activities. In contrast, the "anaerobic" state, that is, those who perform physical or professional activities without adequate oxygen supply to our working organs, and those who work in a state of lack of oxygen, show a certain level of endurance (sprinters, breathing workers, etc.). In them, physical activity is limited by the intensity of the heart rate. When exercising with the goal of resting or restoring the body's energy expenditure, the heart rate should not be around 230 beats or more (called the zero zone). When the work is done with an adequate supply of oxygen and exercise to develop endurance (“aerobic”), a load that reduces the heart rate by 130 to 150 beats should be planned.We evaluate the quality of endurance, depending on the level of resistance to fatigue during muscle activity or exercise. Physical activity, sports activities make a person who is doing exercises feel that it is gradually becoming more difficult for them to continue their activities. Its external symptoms are as follows: sweat begins to flow in the form of large droplets, first redness on the face, then discoloration, muscle discomfort, fatigue, movement coordination, movement technique and the execution sequence of the elements in it is disrupted, the rhythm of breathing and its depth change. The action you are performing creates additional unnecessary

movements, and unnecessary extra movements are added. This is mainly due to physiological, biochemical and biomechanical changes in the body. Continuation of activity is done in exchange for spiritual, volitional and other qualities. This condition is called the compensatory (reversible) fatigue phase. If, despite the increase in the level of willpower, the intensity of work decreases, we observe the beginning of the phase of uncompensated fatigue (recovery that takes longer to recover).To measure endurance with a tool, it is recommended to run at a certain speed, and the time to hold the distance without changing the speed (until the speed starts to decrease) is measured. This is an inconvenient way to measure endurance directly. In practice, resistance is often measured without tools. In sports - endurance is assessed based on the time spent running long distances (10,000 m; 20,000 m). Different types of physical activity cause different types of fatigue. Depending on the nature and mechanism of fatigue, it is distinguished as specific and general endurance. The endurance required for a chosen sport (specialty) or a specific type of work (occupation) is differentiated as special endurance, and the endurance required for activities in other living conditions is distinguished as general endurance.Endurance depends on the ability of the human body to perform the required exercises, on the one hand, on the level of mastery of the necessary movement skills and techniques, on the other hand, on the body's aerobic and anaerobic (oxygenated, non-oxygenated) capabilities. The specificity of the respiratory capacity is relatively low, they do not depend on the external form of movement. Therefore, a runner can use his endurance to perform other activities that increase his aerobic capacity, such as rowing, walking, and cycling. For example, the coordination structure and speed force characteristics of walking and running are often different. Improving the speed achieved by running through exercise does not have a positive or negative effect on the maximum speed of walking. That is, there is no escape. Running speed does not affect walking speed. However, it has been scientifically proven that long-distance training can “move” with each other while walking and running at the same time (VM Zasiorsky, 2009).

Criteria and components of the load play an important role in cultivating resilience. If we pay attention to the fact that fatigue develops during exercise, even if the athlete feels it a little bit, it is clear that if the recovery after exercise occurs in a very short time, the endurance development load is below normal. When the workload is high and done 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 response to the load, its scale, direction. Fatigue is not the same for different types of loads. The full description of the load for endurance during cyclic exercises is presented in the following five components:

1) absolute intensity of exercise (net intensity of movement);

2) duration (length) of the exercise;

3) small size of the rest interval;

4) the nature of the rest (active or passive);

5) number of repetitions (repetitions) of the exercise;

It has been proven in practice that the physical load imposed by the interconnection of these components leads not only to the scale of the body's response, but also to its qualitative characteristics.

Professor A.Abdullayev points out the following as necessary factors in cultivating and developing resilience:

- The presence of energy reserves in the human body;

- The level of functional capacity of various systems of the body (cardiovascular, central nervous system, neuromuscular, etc.);

- the speed of activation and the degree of coordination of these systems;

- Stability of physiological and mental functions of the internal environment of the organism in unfavorable conditions (lack of oxygen, etc.);

- equal use of energy and functional potential of the organism;

- level and readiness of the musculoskeletal system;

personal - mental characteristics (interest in work, diligence, endurance, perseverance, etc.). Flexibility is the quality of movement, which depends on the morphofunctional properties of the supporting apparatus. These properties are manifested and measured by the mobility of these hardware links, its maximum amplitude (bending), bending, bending, elongation, flexibility, torsion, and so on. Flexibility is divided into active (active), passive (relatively low). Flexibility due to muscle strength is defined as active flexibility, external resistance, inertia or the weight of the weight, the elasticity due to external forces, and so on.

It has been proven in practice that high mood and other emotions have a positive or negative effect on the manifestation of resilience. Flexibility is limited, in which the flexibility of the extensor muscles is important. Because the nature of agitation also has the ability to protect and preserve the muscles involved in this process (stretching). As the flexibility of the extensor muscles increases, so does their range of motion. This reduces the activity of the extensor muscles. The appearance of elasticity also depends on the ambient temperature. As the temperature increases, the flexibility increases. The time from early morning to night has a greater effect on flexibility than other physical qualities. For example, flexibility is significantly reduced in the morning. During the training, it is necessary to take into account the degree of manifestation of this quality under the influence of the environment, various conditions - temperature, humidity, time of day, etc.). Low flexibility and the resulting adverse effects or discomforts that can be caused by this can be overcome with the help of squatting exercises, muscle warm-ups, and increased blood supply. Flexibility changes significantly under the influence of fatigue, and the indicators of active flexibility increase. The idea that children are more flexible than adults is not true. It would be more accurate to say that it is easier to develop flexibility in children than in adults.

The activity of flexibility is directly related to muscle strength. Exercises that develop strength, however, can weaken and limit mobility in the joints. Normalizing the quality of this movement can be achieved by combining exercises that develop flexibility and strength. But such negative effects can be overcome. Normalizing the quality of this movement can be achieved by combining exercises that develop flexibility and strength. Excessive development of flexibility in the process of physical training can lead to negative consequences. For example, a wrestler's extreme flexibility can work against him when he uses certain techniques that he must use against his opponent. The development of the necessary movements in such a way as to allow them to perform as freely as possible, and its norm does not exceed the maximum amplitude at which the movement is performed, leads to the enrichment of the reserve of flexibility. Hypertrophy caused by flexibility, development within the anatomical structure of the joints does not justify itself, disrupts the harmony of development. As a result, it can lead to situations that run counter to pedagogical goals.

The mobility and flexibility of the spine, pelvis, thighs and shoulders are invaluable. To develop flexibility, stretching at the maximum range of motion is used to increase the ability to bend.

In active movements, the mobility of the joints occurs due to the contraction of the muscles that pass through that joint, while in passive movements, external forces are used. They are single-phase and spring-like exercises (bending in a row, two to three times), which involve shaking, shaking, holding the final position (fixation), overcoming resistance, lifting weights. exercise. In addition, this group includes exercises performed at maximum amplitude, holding the body motionless (static position) during movement. In passive static exercises, the position of the body is maintained at the expense of external forces. This is less effective than dynamic exercises for developing active flexibility, but can lead to higher performance in training passive flexibility. The relatively low stretch of the muscles makes the effort to increase their length useless. The result will not be very high. However, the repetition of the exercises results in an increase in amplitude, which is not very noticeable. Therefore, flexibility enhancement exercises are developed in series, with each exercise repeated several times. It is recommended to perform the selected exercises for stretching until you feel pain, increasing the amplitude of the movement during the training from series to series.

The amplitude of the exercise is limited by the onset of pain. Such exercises are more effective if they are performed regularly or once or several times a day. If the goal is to maintain the level of flexibility achieved, this can be achieved by exercising less, that is, by increasing the number of exercises. Giving such exercises as homework as an independent assignment is also effective. In the classroom, it is recommended that such exercises be performed at the end of the main part of the session, during the writing exercises, and at intervals between non-core exercises. Before doing flexibility exercises, it is important to do some stretching exercises until the muscles sweat lightly. The increase in mobility achieved due to this exercise does not last relatively long - it is maintained at room temperature for up to 10 minutes. This time can be significantly increased by reducing heat dissipation (wearing warm clothing). Because it is easier to develop flexibility in childhood and adolescence, it is effective to plan for the development of this quality from the age of 10-15.

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