

Article

## Physical Fitness and Physical Load Moderation

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**Abstract:** In this article, the physical of military servicers training, improving the physical loads given to them and the standards they perform, further developing the acquired knowledge and practical skill, and showing that military servicemen are given the right loads.

**Keywords:** physical exercises, special physical exercises, proper breathing, special loads, blood circulation and mobility

### 1. Introduction

It is necessary for military servicers to have theoretical knowledge, practical skills and skills to maintain the level of physical fitness at the same standard [1], [2], [3]. Physical training is a process aimed at strengthening the organs and systems of our body during our lifetime, increasing their functional capabilities, developing physical qualities of strength, speed, endurance, flexibility and agility, which are maintained at the necessary level due to our constant training [4], [5].

A person is forced to study and work in various conditions during his life, therefore, it is necessary to perform vital actions and increase the activity of movement. Physical training serves as a foundation to increase movement activity and avoid difficulty in performing movements. Let's focus on knowledge about the development of movement qualities: The quality of power movement. Research shows that the total strength of muscle fibers is close to 30.000 kg, the ratio of bending and stretching of bones, and its strength (maturity) is equal to the strength of cast iron [6], [7], [8]. It should not be forgotten that a person's power abilities are inextricably linked with the individual development of the organism, and its use must have an appropriate direction. Among the qualities of the preparation of the human body, the necessary level of demands are placed on the quality of strength and movement until the last moments of life process [9], [10].

Most of the authors argue that strength increases with age and the period of 15-18 years is the time of its rapid development. In the development of strength quality, it is important that the exerciser knows the level of strength quality required to perform various exercises. In particular, having an idea about the methodology of performing strength training exercises will increase the effectiveness of military personnel in this process [11], [12], [13].

### 2. Materials and Methods

The level of resistance should be such that the exerciser can perform at least 4 repetitions in one attempt. During execution, the heart rate should increase to at least 170 times per minute. The most effective is the load at the level of strength enough to repeat the

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recommended exercise 8-12 times. If the exercise of bending and straightening the elbow while lying on the floor is repeated more than 2 times in one attempt, it should be explained to the participants that it is not appropriate to use it any more. For this, it is effective to pre-train the hand muscles with other adequate exercises, strength-demanding movements, and then use this exercise to develop strength endurance.

In order to develop the quality of strength, it is of great benefit to perform the exercises in every attempt until the condition of "refusal of the muscles" occurs. After the exercise, the interval between each attempt should not exceed 2-3 minutes (perform before recovery occurs). After performing strength training exercises, it is necessary to relax some muscle groups, and it is appropriate to give flexibility exercises to other muscle groups.

For speed, strength and endurance in weekly micro-cycles of training is recommended to perform the exercises in a rational order. Training to develop strength under loads that are calculated as the limit requires special theoretical knowledge and practical skills. Accordingly, the use of strength training exercises with the use of physical loads that are close to the limit-more than the norm or with the use of body weight- currently gives the results we expect (examples of strength training exercises are given in the chapter on health training).

Agility is a physical part of the physical training of the human body is one of the qualities. Speed is understood as the speed characteristic of the movements of an individual or some parts of this body, mainly a complex of functional characteristics that represent the reaction time of movement. Speed is a comprehensive quality of the human body, which does not appear separately, so it is more correct to think that speed is a manifestation of qualities. There are following forms of manifestation of speed qualities:

- 1) Single movement speed (overcoming small external resistance)
- 2) Frequency of actions
- 3) Movement reaction (hidden latent period)
- 4) Pace of movement

Those who are not sufficiently developed in speed of movement, new movements they encounter difficulties in mastering work and professional activities. From a physiological point of view, its manifestation is related to the ability to transmit excitation impulses in nerve fibers, the speed of muscle contraction, and most importantly, the speed of communication between the necessary centers in the cortex of the cerebral hemispheres.

### 3. Results and Discussion

Speed is characterized by a person's ability to move, go through life processes, actions that require speed and the ability to perform them in a short time. It is a set of functional characteristics that determine the speed of human movements and the time of the movement reaction. "Physical load", "Physical load", "Load" The terms belong to the science of theory and methodology of physical training and are mainly used in the process of physical exercise, health and sports training, educational health training, and also in the context of physical training and education.

Muscle activity is a law related to the energy consumption. According to this law, energy is used for any activity, be it mental or physical. The amount of energy used determines the amount of physical load on the body. Burden is the effect on the organism, and the following are the measures of value in its evaluation:

- 1) Before starting to exercise: feeling normal; feeling the desire and need to perform a new exercise that has not yet been performed.
- 2) Doing the exercise and after doing it, after repeating the action (exercise), the state of good mood will appear, doing the exercise and enjoying the exercise. So, our chosen exercise, its standard (number of repetitions) is suitable for you. Do not increase the number of repetitions, distance of speed of your exercise for 1-3 weeks until your body

adapts to this load. The pace you choose, the number of repetitions of the exercise, is suitable for your current condition. External signs of compatibility: redness on your face, fluency in the sequence of actions, mental elation, excitement, light sweat or sweat on your forehead.

The negative feelings that arise when the norm (load) of exercise is exceeded are the decrease in the desire to exercise, its eventual disappearance, the disappearance of a state similar to the mood of a sick person, "submission to the will of the devil", that is, the appearance of a negative attitude to exercise appears to be.

To perform the exercise, "the body is in a non-adjusted state (normal state) and it is manifested by the smooth, proper sequence, set rhythm, speed, and easy execution of the movements without spending a lot of energy. During such training, the rhythm of their HEART (heart rate) in people with low physical fitness, who have just started to exercise can increase up to 220 times per minute compared to the amount at rest. Such loading can be considered effective only when 65-70% of 220 per minute is achieved for 1-2 weeks.

If it is necessary to increase the speed of the exercise due to the inability to choose the optimal load, we cannot increase it. In this case, the LOAD exceeds 65-70%, and in turn, by reducing the depth of the breath, it turns into a fast and "shallow" breath, the consequences are bad, and it creates a desire to stop the exercise without reaching the set standard. Pain is felt in tendons, ligaments, and veins, and if pace of movement is reduced, the noted unpleasant conditions disappear.

So, for the chosen physical load, the members of your body, their level of service is low, they are not yet ready for a relatively significant amount of loads, and the next day the muscles involved in the exercise will be sore. Therefore, adaptation, "adaptation" to the load has not yet occurred in those muscles. This, in turn, requires reducing the total volume of training loads. If you rush to achieve quick results, your body's organs and systems will refuse to perform their service. Appetite is lost, sleep is disturbed, ill mood appears. Its symptoms: heart rate changes, dizziness; the color turns pale; discomfort in the chest; significant pain in tendons, joints, veins. Pain may persist even after exercise is stopped.

- 3) Post-workout condition. If the load is normal, the heart rate is less than 120 beats per minute (20 or less in 10 seconds) when you are in a good mood after exercise, exercise or when you have mostly completed the exercise. The muscles that have performed the exercise show a pleasant fatigue.

#### 4. Conclusion

Based on the aforementioned observations, it can be inferred that following exercise cessation, heart rate fails to diminish within the range of 120-140 (indicative of apathy). Additionally, minor movement acceleration may induce discomfort in muscles, tendons, joints, and veins, potentially resulting in an elevation of heart rate during typical exertion.

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