

# PHYSICAL FATIGUE AS A FUNCTIONAL STATE AND THEIR RECOVERY APPROACH

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*Abstract.* Fatigue is characterized by a decrease in muscle strength and endurance, impaired coordination of movements, impaired memory, speed of information processing, concentration, and so on. Fatigue is subjectively felt by a person in the form of fatigue, which, in addition, is due to the need for sleep. That is, fatigue makes a person want to stop working or reduce the load. Thus, rest, especially active, leads to the restoration of muscle performance. The spread of chronic non-communicable diseases, a sedentary lifestyle negatively affect people's health. We all know that mental overwork is harder to endure than physical.

**Keywords:** physical fatigue, functional state, working capacity, approach, recovery, development, load.

**Relevance.** Physical development is an important part of the general culture of society, in other words, the totality of its achievements in the creation and rational use of both special conditions and methods of directed physical improvement of the individual. This problem is especially relevant for students of all higher educational institutions of education, since at this time, at this age, the foundations of a healthy lifestyle are formed and laid, and physical education is not always a priority. The presentation in one article of two largely independent and rather diverse problems - fatigue and recovery has a certain theoretical and applied justification. Both physiological processes underlie the working capacity and fitness of students, which, first of all, requires bringing working and rest conditions in line with the psychophysiological capabilities of any specialist. Fatigue and recovery are peculiar functional states of the body and are characterized by a number of general physiological patterns. The mechanisms of development of these processes have a complex and largely similar genesis, depend on the individual characteristics of a person, the nature of his activity, the level of professional training, and their regulation is carried out both nervously and humorally. Being the physiological basis of performance, fatigue and recovery largely determine its magnitude and dynamics. The slower the fatigue develops and the more pronounced the recovery processes, the higher the efficiency. On the other hand, the restoration of working capacity is the more effective and intense, the more pronounced the signs of fatigue, which, however, did not pass into the stage of chronic fatigue and overwork. When tired, first of all, various functions of the body change, and only then the quantitative and qualitative indicators of working capacity decrease. During recovery, the normalization of the body's functional constants serve as the basis for improving direct performance indicators. Based on these patterns, it is possible to predict the level of human performance and to a large extent control the processes of fatigue and recovery. It should also be borne in mind that the study of fatigue and recovery goes far beyond the scope of physiology and medicine. They have many sides, each of which is of interest to a particular scientific discipline.

**Purpose of the study.** The main task of research in a modern university is to prepare young people for independent motor activity, the formation of a stable habit for constant physical exercise. At the same time, the study load on students is high, which often harms their general

physical and mental state, and this can have a particularly negative impact on the process of personality formation, which coincides in time with the period of study.

**Results and discussion.** It is necessary to consider the concept of physical development as a combination of the overall development of the student, his state of health and psyche, and the actual "physical culture" as a component of the cultural development of the individual. In modern development, the existence of society, it is necessary to control the state of health of those involved and the influence on it of the means and methods used. The duties of such control lie with a specialist: a teacher (teacher, trainer) and a doctor who has undergone the so-called special medical and physical education training. They have a joint responsibility to ensure that the most valuable outcome of physical education is good health. It is physical education, as such, that is an integral part of the general education of a person's personality. Contributing to the formation of motor skills, the improvement of such qualities as speed, strength, endurance, dexterity, it forms a number of moral and volitional qualities: courage, determination, perseverance. As you know, labor made a man out of a monkey. In other words, the process of formation of the body of modern man took place under the influence of physical activity. It is the need to take into account the degree of tension of the load. From overstrain arises such a physiological process as overwork. The problem of improving the health of the population has become especially relevant in the last few decades. The reason was the influence of the way of life in the developed information society on the state of human health. Modern realities, on the one hand, make it possible to practically consider a person as the highest value, to take care of its harmonious development and the disclosure of all creative possibilities, and on the other hand, they pose a threat to health, which casts doubt on all other achievements. Fatigue is a physiological state of a person that occurs as a result of intense or prolonged work, which is expressed in a temporary decrease in performance. Fatigue is also called fatigue. In the scientific interpretation, muscle (physical) and central (nervous-psychic) fatigue are distinguished, and during hard work, heavy loads, they are combined. Fatigue is characterized by a decrease in muscle strength and endurance, impaired coordination of movements, impaired memory, speed of information processing, concentration, and so on. Fatigue is subjectively felt by a person in the form of fatigue, which, in addition, is due to the need for sleep. That is, fatigue makes a person want to stop working or reduce the load. Thus, rest, especially active, leads to the restoration of muscle performance. The spread of chronic non-communicable diseases, a sedentary lifestyle negatively affect people's health. We all know that mental overwork is harder to endure than physical. Headache and general weakness for people engaged in mental work, which no doubt includes students and teachers, is common, because they often overwork. Fatigue is subjectively felt by a person in the form of fatigue, which, in addition, is due to the need for sleep. That is, fatigue makes a person want to stop working or reduce the load. Thus, rest, especially active, leads to the restoration of muscle performance. The spread of chronic non-communicable diseases, a sedentary lifestyle negatively affect people's health. We all know that mental overwork is harder to endure than physical. Headache and general weakness for people engaged in mental work, which no doubt includes students and teachers, is common, because they often overwork. There is a good tool for this - physical culture. Physical education relieves fatigue of the nervous system and the body, increases efficiency. Therefore, the student needs physical education. If he lacks free time, then you can try simple exercises without leaving the room, such as: sipping, squats, jumping in place on toes, hands on the belt. Self-study leads to a simpler and better assimilation of educational material, is self-development in the field of

physical culture and sports. In conjunction with physical education classes at the institute, this ensures optimal continuity and effectiveness of physical education. Also, special attention should be paid to the daily routine. The components of the daily routine are: physical activity, work, rest, sleep, giving up bad habits, and, most importantly, proper nutrition. Proper adherence to all these components of the daily routine will lead you to improve both physical and mental performance, as well as improve overall health and increase life expectancy. A healthy lifestyle largely depends on the student's value orientations, worldview, social and moral experience. Social norms, values of a healthy lifestyle are accepted by students as personally significant, but do not always coincide with the values developed by public consciousness. Neuropsychic (central) fatigue is caused by prolonged intense mental work, monotonous monotonous work, noise, poor working conditions, emotional factors, diseases. If, despite fatigue, the work continues, exhaustion occurs. Recall that heavy physical and neuropsychic stress causes stress. Distinguish between acute and chronic exhaustion. The first is a sharp decrease in performance during hard work, the second occurs due to prolonged hard or too often repeated hard work. Acute and chronic wasting often occurs in professional athletes during sports competitions and training. Rest is a state of rest or a special, specially organized type of activity that relieves fatigue and contributes to the restoration of working capacity. I. M. Sechenov in the second half of the 19th century. found that the work of some muscle groups of the limbs helps to eliminate the fatigue of other muscle groups caused by their work. This provision formed the basis for the definition of two types of recreation: active and passive. Active rest is a rest during which a person performs another type of work, different from the usual work performed. Recovery during active rest is faster and more efficient than during passive rest, when the body is in conditions of relative rest. So, for example, intense mental activity should be replaced by physical activity. And vice versa, intense physical - mental. This provision formed the basis for the definition of two types of recreation: active and passive. Active rest is a rest during which a person performs another type of work, different from the usual work performed. Recovery during active rest is faster and more efficient than during passive rest, when the body is in conditions of relative rest. So, for example, intense mental activity should be replaced by physical activity. And vice versa, intense physical - mental. This provision formed the basis for the definition of two types of recreation: active and passive. Active rest is a rest during which a person performs another type of work, different from the usual work performed. Recovery during active rest is faster and more efficient than during passive rest, when the body is in conditions of relative rest. So, for example, intense mental activity should be replaced by physical activity. And vice versa, intense physical - mental.

**Conclusions.** According to many authors, students themselves practically do not take any measures to improve their health, although in the ranking of values they put health in second place after education, fully understanding that a high level of health gives competitive advantages in the labor market. Not every student today thinks about this and only a few begin to change something in their lives. A person who devotes time to physical activities improves their health and mental performance. Improving the health of each person leads to an improvement in the health of society as a whole, an increase in the standard of living and culture. And you need to think about this even not in your student years, but much earlier. Moving and doing physical work has shaped the human body the way we have it now.

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