

METHODS OF STRUCTURING AND ANALYZING FUNCTIONAL CHARACTERISTICS OF THE ORGANISM IN THE DIARY OF SELF-CONTROL

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In this paper we consider the question of the role of the diary of self-control in the process of forming a healthy lifestyle among students, and also examine the relevance of this issue, its necessity, tasks and goals for involving young people in keeping a diary of self-control and improving their health.

Keywords: *diary of self-control, method of self-control formation, healthy lifestyle, health.*

*The physical perfection of man is not a gift of nature,
but a consequence of the purposeful formation.*

N. G. C h e r n y s h e v s k y

Relevance. Diary of self-control is an important tool in the formation of diet, day regime and exercise program. Its management is relevant for athletes, as it allows us to embrace a picture of the changes occurring in the body in a convenient form as a result of training, and to minimize the risk of injury and overwork. Self-control is also important for people who lead a healthy lifestyle because the diary provides a disciplining and stimulating function.

Materials and tasks of the study. The aim of this study is to list some ways of fixing various aspects of functional changes in the body in order to analyse person's condition. The objective of the study is to offer a list of body and lifestyle criteria that are amenable to independent observation. Also, the task is to propose ways of fixing, testing and measuring the characteristics of the organism.

Results of the study: As a result of this research, an extensive arsenal of means for analysing and structuring the functional characteristics of the organism has been derived. Practical instructions for the implementation of self-control are given, methods for creating an extensive picture of the effect of physical exertion on the body are proposed.

The process of forming a healthy lifestyle is often considered in terms of the following indicators: the regime of the day, the presence of physical activity, the systemic nature of the outgoing procedures and the organization of nutrition. Keeping a diary of self-control allows us to set, monitor and adjust daily biorhythms, diet, consumption rate micro — and macronutrients, as well as to analyse changes in the body condition, depending on the load. Regular

maintenance of the diary gives us an opportunity to determine the caloric content of the daily ration, the effectiveness of individual physical exercises and the effect of the day regimen on working capacity. In the diary, it is also recommended to note cases of violation of the regime and their impact on further productivity. Regular maintenance of the diary of self-control can greatly benefit in the formation of a healthy lifestyle, which will help to identify problem aspects and correct them immediately, therefore the diary should be kept regularly: every day, in a day or once a week after a rest day [2. P. 72].

In this paper we consider such questions, which make the diary of self-control a productive tool for the representation of the influence of physical exertion, as well as a way of life and nutrition for well-being and working capacity. The structure of the diary of self-control includes a list of items that can be divided into objective and subjective indicators.

Objective indicators include anthropometry and functional tests, information about the diet and exercise. Subjective indicators represent the body's response to the chosen course of distribution of loads and nutritional diet, and are expressed in the form of descriptions of well-being, mood, appetite and sleep patterns.

To denote the characteristics of the physical state of the body, an anthropometric table is maintained in the self-monitoring diary. The first point on the list is height. For the accuracy of this measurement, you need to take the right posture: the scapula, heels and buttocks should touch the counter, the head is positioned so that there is a tragus of the ear and an outer

corner of the eye socket on one line. The next indicator is weight. Its measurement should be carried out in the same clothing. The last point is the measurement of the circumference of the chest and abdomen. The indicators are measured with a soft centimetre tape. When measuring the chest, the tape should be placed under the scapula — behind, at the level of the fifth rib. A circumference of the abdomen is especially important to measure with ascites. In this case, a soft centimetre tape is placed at the back of lumbar vertebra, in front — at the level of the navel.

Measurement is carried out in the morning, preferably after the defecation and release of the bladder. Anthropometry helps us to create a holistic picture of the general physical state of the body, and also quickly fix the changes that occur. If desired, additional indicators can be added to the anthropometric table.

Functional tests, like anthropometry, are an integral part of the complex methodology of the medical control of people engaged in physical culture and sports. Their usage is necessary for the complete characterization of the functional state of the organism. There are many functional tests, we will dwell on the most common of them.

One of the most commonly used functional samples is the Ruthier Index. Before performing this test, the body needs to rest, without moving for 3 minutes. After that, it is necessary to measure the heart rate. Next, you need to perform 20 deep sit-ups in 30 seconds with your arms raised forward from the starting position of the leg to the width of the shoulders, while the trunk should remain in the vertical position, then again measure the heart rate for 15 seconds with a recount of 1 minute in the sitting position. As a result, the magnitude of the increase in heart rate after the load in per cent is determined. It represents the characteristic of the recovery period in the organism [1. P. 234].

One of the most sensitive samples of self-control is the Genci test, which is a measure of the duration of the respiratory depression one has on inhaling and exhaling. An athlete takes a quiet breath and exhales, holds his breath. The length of the delay reveals a common physical form and fitness. An ordinary person with good health can hold his breath for 30 seconds, while an athlete holds 40–60, sometimes more. This test is particularly appropriate for checking the progress of beginners in physical activities [4. P. 90].

An orthostatic test is often used to determine the state of the respiratory system. When you quickly change the position of lying in the standing position,

there is an increase in heart rate. The pulse is measured first in a supine position, then a sharp rise is made and the pulse is measured again. From the first figure, subtract the second. With good physical preparation, there is a difference in the range of 5–15 strokes, and also a decrease during the test. The difference, fluctuating around 25–30 strokes, is an indicator of weak functional training, the magnitude of 50 strokes is evidence of a poor physical shape. A variety of functional tests cover a wide range of aspects of functional training, depending on the individual factors of the athlete and the specific physical activities, a special set of tests is compiled. For example, to assess the functional state of the cardiovascular system, the Harvard step test is also used. To assess the physical state of the human body and its physical preparedness, various exercise tests are used, such as the clinostatic test, the study of static stability in the Romberg pose, and many others.

Functional tests and anthropometry perform the function of fixing changes in the athlete's body and detecting progress in physical development. Of no less importance for the development of the athlete are the objective factors that cause successful physical development, namely, a correctly composed diet and harmoniously calculated physical activity. Therefore, the introduction of data on nutrition and physical activity is an important component of self-monitoring and has the function of favourable restriction and stimulation.

At first, let us dwell on the structure of the diet diary. It is important to fix not only the intervals and composition of food but also the influence of products on the emotional and physical state. In the food diary it is important to note: the time of eating; eaten foods and their energy value, the content of proteins, fats, carbohydrates and other micro- and macro elements; the motivation for eating (at this point it is important to note what led to this meal, whether it really was hunger, or there were other reasons); the degree of hunger — this indicator is important for determining the nutritional value of individual foods and products and further regulating the diet in connection with the data obtained; the degree of satisfaction from eating, both the physical sensation of satiety and the subsequent emotional state are important, the latter should be reflected in the diary for further analysis of the dependence of the diet on the emotions tested, which will later help to develop a method for controlling and regulating the emotional state. The effect of food on the physical condition is no less important. In this graph, it is necessary to reflect the influence of food on the generation of physical states of the body:

drowsiness, tidal forces or lethargy, etc. In addition to food, a diary is entered in the diary of the amount of fluid consumed, which is necessary to form a habit of consuming sufficient quantities of water per day. As a final indicator in the diary of the ration, daily calorie counts are counted, and the ratio of nutrients and vitamins is analysed.

An integral part of self-monitoring is a body of data on physical activity. First, in the diary of self-control data are entered about the exercise complexes. Correctly selected sets of exercises should be written in the diary of self-control. This makes it possible to evaluate the results of training, the correctness of the training plan, and the need for its adjustment, which contributes to the development of optimal training plans. Secondly, the journal keeps a record of the progress of training. This section includes the number of approaches and repetitions of each exercise, as well as the weight of each approach. One of the best methods to control the intensity of training is the control of the pulse. The pulse is counted on the ray artery in the foot of the thumb, on the carotid artery in the neck, or on the palpitations, with a hand on the heart area in 10 or 15 seconds. The more trained a person is, the faster his pulse comes to normal after a workout. In addition, you should enter data on blood pressure and general health after the load. It is necessary to enter the duration of the training in the diary. The complex of these measures allows us to avoid not only overtraining but also problems with health in general. An overtraining is a physical, behavioural and emotional state that occurs when the volume and intensity of the training program exceed the recovery ability [5. P. 389].

Finally, the rest of the activity carried out during the day and the results should be recorded in the diary of self-control because it is no less than training influences the physical and psycho-emotional state. The exercise program should take into account the lifestyle, in order to avoid reloading. In the columns of the diary, as a representation of everyday activity, the number of steps taken is measured, the measurement of which is accessible through the pedometer.

The structure described above encompasses a set of tools and data that affect the formation of subsequent plans for the development of a functional state. For a more accurate correspondence of the physical state and the tools of its development in a diary, one should fix subjective indicators of the state of the organism, namely, well-being. With the correct structuring of the data in the diary of self-control, the doctor or coach

will quickly understand and evaluate the specificity of the impact of the chosen approach when working with the athlete. In case of excessive workload, or on the contrary, more intensive development is available, adjust the training program or diet [3. P. 46].

By "state of health" we mean a fairly wide and flexible list of indicators of the state. The indicators in this section are divided into two types: the psycho-emotional state and the physical.

One of the main qualitative indicators of the psycho-emotional state is the state of the central nervous system of the athlete. As a rule, after training, there is a deterioration, which is caused by physical fatigue, but after rest the state of health is rehabilitated. With correctly balanced and regular training, the athlete's condition is predominantly good, which is usually indicated by a healthy motivation to continue his studies. If, however, there is a painful condition occurring in training or lasting after, then it is worth paying attention to the health of the athlete, and to check whether there was the recent sharp acceleration of physical activity. In a psychological state, the reflection on fatigue affects apathy, sometimes even in disgust for training. If this condition is fixed for a period longer than a week, you need to contact the trainer and the doctor who will conduct a health analysis and training programs.

When self-monitoring the physical condition, it is necessary to enter information about any kind of pain sensations in the diary. The presence of pain is an important signal, the occurrence of which can indicate trauma, illness, and imbalance in the load. The cause of pain sensations is revealed by the attending physician [5. P. 245].

Girls and women need to record data on menstruation, its duration and nature. This indicator will help to adjust the training plan at the initial stage of menstruation. And revealing changes in the course, as well as worsening of well-being, will become signals to regulate the number of loads during this period.

Sleep and appetite are external manifestations of the athlete's well-being. To fix the normal state and understand the deviations from it in the self-monitoring diary, it is also necessary to enter data about them. A healthy sleep is very important for physical exertion. Evidence of sleep disturbances are: an increase in the period of falling asleep (more than 30 minutes), lack of a sense of rest when you wake up, and an increase in sensitivity during sleep, awakening from sounds and dreams. Sleep disorders should be observed, in order to identify the causes, it is often caused by overwork.

Therefore, in the diary it's worth noting not only the number of hours spent in a state of sleep but also the speed of falling asleep, the feeling during sleep.

A good appetite is the same norm for a good state of health, as well as a dream. With the right choice of a complex of physical activities, appetite becomes a natural consequence of the replenishment of calories and energy. If the athlete has a lack of appetite, this should alert. Lack of appetite may indicate an incorrectly composed complex of stresses, as well as the occurrence of diseases. Appetite is entered in the diary under one of the definitions: normal, elevated or low.

After reviewing various aspects of the body that are suitable for self-control, the importance of their typology becomes evident. A diary of self-control is a tool for comfortable fixing of changes that take place in the body. The reduction of data in the diary creates a history of the impact of functional exercises on the athlete's body, a story that the doctor or coach can analyse if necessary to promptly make adjustments in the event of problems in training or health. A variety of methods of self-control allows us to assess the physical condition of the practitioner more accurately,

choose the right plan for physical exertion and nutrition and avoid injuries.

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Поступила в редакцию 24 января 2018 г.

Для цитирования: Islamgaleeva, M. R. Methods of structuring and analyzing functional characteristics of the organism in the diary of self-control / M. R. Islamgaleeva, R. T. Hadieva // Физическая культура. Спорт. Туризм. Двигательная рекреация. — 2018. — Т. 3, № 1. — С. 32–36.

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Методы структурирования и анализа функциональных характеристик организма в дневнике самоконтроля

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В статье поднимается вопрос о роли дневника самоконтроля в процессе формирования здорового образа жизни у студентов, а также рассматривается актуальность данного вопроса, его необходимость, задачи и цели по привлечению молодёжи к ведению дневника самоконтроля для поддержания и улучшения здоровья.

Ключевые слова: дневник самоконтроля, методика формирования самоконтроля, здоровый образ жизни, здоровье.

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