

Mistakes athletes can avoid while working out at self-isolation and right after the lifted restrictions

Sergey Dodonov: "It is important that athletes develop an algorithm for increasing training loads after self-isolation"

One of the key problems of the forced quarantine for athletes is the sharp decline or the complete absence of training for a long, indefinite period of time. This leads to the loss of sporting fitness and the development of physical inactivity, muscle hypotrophy with a decrease or loss of basic locomotor functions, excessive accumulation of adipose tissue, metabolic shifts, etc.

The terms used are specific, but one thing is obvious – the body is faced with a whole range of completely unusual problems. What should athletes do in such a situation? We discussed this topic with Dr. Sergey Dodonov, Head of the Sports Medicine Department of the FMBA of Russia and specialist in sports medicine.

"First of all, athletes and their coaches during self-isolation should try to minimize the loss of sporting fitness and continue to perform special exercises to maintain locomotor functions," said Sergey Dodonov. "However, without exercises for muscle groups that are directly involved in conducting the most significant technical and tactical actions, it is possible to exacerbate previously encountered problems with the musculoskeletal system. Moreover, the risk extends to functional problems, such as muscle imbalances, failure of individual muscle groups, in particular postural muscles, and also to existing illnesses of the human musculoskeletal system.

That is why now we need to pay attention to those problems that can be solved by normalizing sleep, diet and the use of medical products (orthoses, breathing simulators, medicinal preparations). These can help with functional disorders of the gastrointestinal tract, stress ulcers, irritable bowel syndrome, the consequences of injuries and overexertion of the locomotor system, as well as illnesses of the respiratory system. In this case, a systematic approach and the close interaction of athletes, coaches, doctors and psychologists are crucial.

What exactly needs to be done? Athletes should optimize locomotor activity in order to counter the increasing decline in the functional activity of "weak links" with differentiation by groups of sport, and also adapt their diet due to changes in workout intensity, this means first, a reduction, then an increase so as to gradually resume full training.

Another important point in this regard. Self-isolation and other restrictive measures will inevitably lead to a desire to make up for lost time, and this desire will be fraught with the risk of committing mistakes. First of all, this concerns the quick increase in training loads after going through the self-isolation regime, as well as the excess volume of workout loads, including exceeding the permissible volumes of intensive training when preparing for competitions that require greater endurance.

Also it is not a good idea to demand perfection in terms of the athlete's physical form by reducing the time for reaching full sporting fitness, due to the excessive attention paid to the technical or psychological aspects of training to the detriment of physiological aspects.

I would also like to draw attention to the great damage that could be caused by unjustified modifications of the training methodology, the monotony of training loads and the overly intense competition calendar, increasing the risk of violations of the prescribed training regimen and the daily routine, as well as athletes' possible lack of confidence in coaches.

Many people might think that such mistakes are extremely unusual, however, oddly enough, this is not the case.

Each of these errors is a risk factor for overextending yourself. Numerous such errors combined may lead to rapidly increasing fatigue. And when athletes combine an irrational training model with inadequate nutrition they are bound to develop overtraining syndrome.

In this regard, it is very important that athletes develop an algorithm for increasing training loads which is necessary after a long period of no training and competitions. At first, it would be more correct to concentrate on increasing the frequency of training sessions and their duration, after which a gradual increase in the intensity of training loads can be possible. At the same time, sharply increasing the volume or intensity of training sessions is ill-advised.

What do the European College of Sports Science (ECSS) and the American College of Sports Medicine (ACSM) recommend doing in order to compensate for lack of movement and training during the pandemic? European researchers suggest 10 steps to overcome the effect of low locomotor activity on metabolism and body composition during the self-isolation regime.

To overcome the effect of low locomotor activity on metabolism, the ACSM suggests performing a short series of workouts during the day: 2-5-10-20 minutes. This is a set of measures to maintain a sufficient level of physical activity and the corresponding dietary restrictions.

Athletes should use every opportunity to improve – sitting down rather than lying down; standing rather than sitting. While eating, watching TV or using social media it is better to sit on unstable supports – balancing disks or pillows, among others; when working on a computer, it is better to stand. Also advised is maintaining locomotor activity utilizing all means available at home – various modifications of the plank position; using the flight of stairs in apartment blocks (as a way of interval training), therapeutic physical training, as well as the use of electromyostimulation based on the recommendations of team doctors.

Daily sets of exercises should include special techniques in order to enhance intermuscular coordination of movements with exercises in the three-plane mode - Balance, PNF and exercises to strengthen postural muscles that are responsible for an upright position.

For representatives of various sports it is necessary to determine the ratio of stretching exercises and isometric exercises. Particular attention should be paid to exercises for

developing muscle endurance with a phase ratio in high-intensity interval trainings, depending on the degree of functional state loss.

For instance, rapid ascents and descents up and down the staircase at the highest possible pace, fully stepping on each step, possibly with moderate loads gradually increasing in weight.

It is advisable to focus on exercises aimed at strengthening the insufficiently active muscle groups. To identify the "weak zones" of muscle activity, it is necessary to take into account the athlete's particular sport, as well as the presence or absence of chronic diseases in the athlete's musculoskeletal system.

This approach will also reduce the risk of injury after resuming full-time training activities.