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Research Article

RECOVERY OF FOOTBALL PLAYERS BODIES AFTER INTENSIVE PHYSICAL ACTIVITY

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ABSTRACT

The article contains recommendations for providing food in accordance with physiological norms for the process of restoring the energy used for the recovery of the athlete's body and adjusting the diet depending on the content of necessary nutrients (proteins, minerals, water, mineral products) in the provision of plastic substances.

KEYWORDS

Football players, diet, recovery process, nutrients, physical activity.

INTRODUCTION

Recovery of the body of football players after intense physical activity is a complex set of processes that include: restoration of spent nutrient reserves in the muscles and liver during IFN, restoration of fluid and electrolytes lost through sweat during IFN, restoration of the depressed immune system during IFN.

Restoring the body of football players after intense physical activity remains a pressing issue and the main task of modern sports medicine.

Recovery after soccer training: should you eat candy? This issue is sometimes hotly debated by football coaches and doctors. Can candy be considered as a recovery product after training or competition? After all, they contain a large amount of carbohydrates, are

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loved by many and can be easily eaten in any quantity [1].

It is quite possible that carbohydrate saturation after training will be achieved in this way. Some sports nutritionists even create special "kits" of products designed for athletes' post-workout recovery, based on candy. However, others are completely opposed to this practice, believing that candy is mainly composed of sugar, a very dangerous product that causes the release of insulin and thirst. Who is really right? As with many nutritional questions, there is no definitive answer. A lot depends on the specific situation and individuality of the athlete, the tasks that need to be solved during the recovery process[2].

The problem of recovery is especially acute for football players who train twice a day, as well as for competition participants who start repeatedly over several days. Before each next load, the body must adapt to physiological stress.

If the training process is structured correctly and there is enough time for rest between classes, adaptation processes lead to an increase in physical condition. In competitions it can be more difficult to control the recovery process, but this goal is achievable.

The recovery of football players' bodies after intense physical activity depends on the work done - the amount of nutrients consumed, loss of sweat, muscle fatigue. The task of recovery is to deliver all the necessary substances to the body, quickly, in an easily digestible form, and in the right proportions.

1. Restoration of nutrients.

Muscles can restore their energy reserves (glycogen) at a rate of 5% per hour, provided that sufficient carbohydrates are ingested. Depending on the intensity of the training process and training schedule, a seriously training football player needs 7-10 grams of carbohydrates per kilogram of body weight per day (350-700g per day).

If the rest between workouts is less than eight hours (it is necessary to solve the problem of restoring energy reserves. For this process to take place, you need to take at least 1 gram per kilogram of the player's weight (50-100 g) with the first meal after training, or even better immediately after an exhaustive load.

2. Fluid recovery.

Football is one of the difficult sports where the athlete is able to cope with fluid loss through sweat. Studies conducted in Australia in the summer showed that during training a football player loses less than 100-150 ml of fluid per kilometer.

Naturally, a football player who drinks drinks during training will finish it without a fluid deficit. Training on land, especially in hot conditions, leads to large losses that must be replaced by 150%^. So, if you lost 1 kg in weight, you should drink 1.5 liters to restore balance.

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When creating a drinking schedule for young athletes, the following recommendations should be taken into account:

We must strive to ensure that the body has the usual balance between water loss and its consumption. Never start with a negative water balance!

You should "stock up" on water before the start, drinking 400-600 ml 40 minutes before it.

During competitions, it is necessary to take small portions (30-60 ml, one or two sips) of water or carbohydrate-mineral drinks every 10-15 minutes. At high temperatures, athletes must drink, even if they are not thirsty. But the amount of liquid should not exceed 1 l/hour.

Do not consume large quantities of chilled liquid. It is advisable that its temperature be within 12-15°C. This is due to the positive effect of cooling the oral cavity and nasopharynx on thermoregulation processes.

It is necessary to accustom yourself in advance to drinking chilled liquid in the summer.

Replenishing the loss of water and salts must begin immediately after the game. All necessary drinks should be at hand! It is desirable that the drinking regime schedule and the rationale for the need to take carbohydrate-mineral drinks are under control [3].

3. Restoration of the immune system.

An athlete's immune system is depressed in many ways after a hard workout of several hours or more. At this time, the football player is at risk of contracting infectious diseases. Many sports nutrition components are designed to reduce this risk: vitamins C, E, glutamine, zinc, Echinacea, but none of them guarantee universal protection.

Recent scientific research shows that carbohydrates are very promising in supporting the immune system. The consumption of carbohydrates during and after heavy training loads has shown a decrease in the weakening of the football player's immune system. Eating carbohydrates can be beneficial for a number of reasons, such as reducing the release of stress hormones, which in turn suppress the immune system. In addition, carbohydrates supply glucose, which is a source of energy for many cells of the immune system[4].

C Muscle recovery and building. Prolonged and intense training depletes muscles and the protein they contain. During recovery, catabolism (breakdown) slows down and the anabolic process begins - the process of building new muscle tissue. Recent research has shown that immediate intake of amino acids from a complete protein meal improves the repair and construction of new muscle tissue. Protein taken before or immediately after strength training is more effective in building muscle than protein taken many hours after the workout. The maximum effect is

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achieved when taking a protein-carbohydrate mixture together. Eating carbohydrates stimulates the release of insulin, which activates and optimizes the use of protein by muscles. For an athlete who trains two or more times a day, diet is of enormous importance. Meals should be planned in accordance with your training schedule. Immediately after training, you need special recovery food and drink containing the appropriate amount of carbohydrates, protein and other essential nutrients (vitamins and minerals). If there is a problem of excess weight, the product should have a reduced fat content[5].

Typically, football players finish their training hungry enough to eat any food offered to them. However, sometimes they are so tired that they can only swallow something light and not requiring careful chewing.

Products consumed immediately after training should be completely ready for use, take up little space in your bag, be easy to transport, and not cause problems when crossing borders and at customs. Individual packaging labels must confirm the presence of essential nutrients and the absence of prohibited ingredients (dopings). Sweets, of course, have relative value as a restorative product due to their content of easily digestible carbohydrates. But they do not contain any protein, vitamins or other useful components. A certain amount of sweets (50-70 grams) should be supplemented with other foods of high nutritional value. Below are examples of what you can eat right after your workout.

50 grams of carbohydrates contain:

- 700-800ml sports drink

- 500 ml fruit juice or cola

- 300 ml high carbohydrate sports drink

- 2 slices of bread with jam or honey

- 1 large Mars or 80 gram chocolate bar

- 2 cereal bars (like muesli)

- a cup of vegetable soup with a large piece of bread

- 300 g rice

- 300 g baked potatoes with sauce

- 100 g pancakes with syrup

Servings of foods containing protein and carbohydrates:

- 250-300 ml of sports protein-carbohydrate mixture

- 250-300 ml fruit milkshake

- sports protein bar

- large bowl of cereal with milk

- cereal bars plus 200 g yogurt with fruit

- a large banana plus a sandwich with cheese or meat

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- 300 g fruit salad plus 200 g yoghurt

- 200 ml milk plus two small raisin buns

- 300 g baked potatoes with cheese and a glass of milk

- 200 g pizza with chicken and vegetables

The acceleration of recovery processes in the body of a football player after physical activity is facilitated not only by carbohydrates, but by proteins with complete amino acids, vitamins and microelements. Thus, rationing the energy "cost" of nutrition for recovery requires rationing nutrition according to the content of basic food ingredients (proteins, fats, carbohydrates, water, trace elements, minerals, vitamins) to ensure the basic physiological functions of the body and to ensure plastic processes.

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