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Atadjanova Dilfuza Sharobidinovna
Fergana Medical Institute of Public Health
Fergana, Uzbekistan

THE IMPORTANCE OF WATER FOR THE ATHLETE'S BODY

Annotation: The article deals with water, which is an integral part of any person's life. Water helps an athlete build quality muscle mass, improves performance and training efficiency, and improves overall well-being. The article discusses the complications of water deficiency in the body, optimal water balance and the importance of water for athletes.

Keywords: optimal water balance, dehydration, water consumption rate, water intake regime, thirst.

INTRODUCTION

Water plays a crucial role in an athlete's body, affecting performance, endurance, and overall health. During physical activity, the body loses water through sweat, and if not replenished, dehydration can occur, leading to fatigue, muscle cramps, dizziness, and even heat-related illnesses. Proper hydration helps regulate body temperature, ensuring that athletes do not overheat during intense exercise.

In addition to temperature regulation, water is essential for maintaining muscle and joint function. It helps lubricate joints, reducing the risk of injuries, and supports muscle recovery by preventing soreness and stiffness. Water also plays a vital role in transporting nutrients and oxygen to muscles, which enhances energy production and overall athletic performance. Even mild dehydration can negatively impact strength, speed, and coordination, making it harder for athletes to perform at their best. To prevent this, athletes should drink enough water before, during, and after exercise. Monitoring urine color is a simple way to check hydration levels—pale yellow indicates good hydration, while darker urine suggests dehydration. In cases of prolonged or intense workouts, sports drinks containing electrolytes may be beneficial to replace lost minerals.By staying properly hydrated, athletes can maximize their physical performance, recover more effectively, and reduce the risk of injuries. Water is not just essential for exercise but also for overall health and well-being, making hydration a key component of any athlete's routine.

METHODS

Today, no one denies that water is the source of life on Earth. A person, as part of this life, consists mostly of water. For example, 97% of an embryo, 65-75% of a middle-aged person, and 60-65% of an elderly person's body are made up of water. The older a person is, the less fluid they have. Our body organs contain a huge amount of water. For example, blood - 83%, brain, heart, muscles - 75%, bones - 20% water.

Therefore, for the normal functioning of the human body, it is necessary to maintain optimal water balance. It is especially important for athletes who regularly exercise to drink enough fluids. Maintaining optimal water balance in the body increases high-quality muscle mass and training efficiency, improves overall condition and maintains health.

Benefits of water for the human body:

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• Detoxification. Water accelerates the process of eliminating decay products, toxins and toxins from the body. It is necessary to increase the amount of fluid consumed during a protein diet. Because water accelerates the excretion of ketones, urea and nitrogen.

• Normalizes the work of the gastrointestinal tract. Compliance with the fluid intake regime helps to digest food and prevents constipation.

• Improves the absorption of many sports supplements, such as creatine or carnitine, as well as water-soluble vitamins.

• Lack of water in the body worsens the absorption of carbohydrates and fats. Lack of water in the body reduces endurance and physical strength, leads to apathy and weakness, and also significantly reduces work efficiency.

• During physical exercise, the athlete sweats a lot, which leads to fluid loss. If the balance is not replenished in time, dizziness and weakness occur. In some cases, fainting may occur.

Physiological processes that maintain water balance occur in the human body. First of all, these are thirst and the excretion of fluid through urination, breathing or sweating.

RESULTS

What is the optimal amount of water consumed for all processes in the human body to proceed normally? The daily need for water for a person weighing 70 kg is 2.5 l, of which 1.2 l comes from drinking water, 1 l from food, and 0.3 l from the oxidation of fats, proteins, and carbohydrates. The same amount (2.5 l) of water is excreted from the body per day: 1.5 l from urine, 0.5 l from sweat, 0.4 l from exhaled air, and 0.1 l from feces.

The intake of less than the daily water requirement leads to a decrease in the amount of water in the blood and interstitial space. This condition is called dehydration. Dehydration leads to thickening of the blood, its increased viscosity, and, as a result, impaired blood circulation. Dehydration of 20% of body weight can even lead to lethal conditions.

So how and how much water should you drink to prevent such negative consequences? - this is a pressing issue that concerns not only athletes, but also people with moderate physical activity. To maintain optimal water balance, it is necessary to drink fluids in equal portions at certain intervals. Many coaches develop an individual fluid intake regimen for each athlete. This takes into account the athlete's weight, training intensity, and nutrition.

DISCUSSION

General recommendations for athletes on drinking water:

• Before the start of training. Experts recommend drinking 500 ml of water a few hours before training, and another 200 ml of water immediately after training. If training is held in the summer or in a room with poor air, the amount of fluid consumed should be increased by 30%.

• During training. During physical exercise, you should drink 200 ml of fluid every half hour. You should drink water in small sips.

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• After training. After physical exercise, you should drink about 0.5 liters of water within two hours. This will help eliminate the fluid deficit that occurs during physical exercise.

• You should drink warm water. Despite the desire to quench your thirst with ice-cold water, you should refuse to drink drinks with a temperature below 12ºC. This increases the load on the kidneys and provokes the development of inflammatory diseases.

• Before eating. Often, the body perceives the feeling of thirst as a feeling of hunger. Drinking liquid 20 minutes before a meal prepares the gastrointestinal tract for digestion.

• The average daily fluid intake for women who regularly engage in sports is 2.7 liters, for men 3.5 liters. The daily amount of water can also be found using the formula of dividing body weight by 30.

• To replenish the water balance, experts recommend drinking plain water. You should give up drinking sweet carbonated drinks, packaged juices and coffee. There is a lot of debate among those who follow a healthy lifestyle about which water is more useful to drink: raw, boiled or mineralized. Many are sure that such water is safe for the body, since the bacteria in boiled water are dead. When boiling, many harmful bacteria die, as well as beneficial ones. In addition, calcium and magnesium salts can break down and settle on the walls of blood vessels. Therefore, it is not recommended to drink boiled water in large quantities.

Since the alkalinity of ordinary drinking water is equal to the pH of the blood, all nutritionists and trainers recommend drinking unboiled, raw water.

Despite the fact that it is very easy to maintain a constant intake of drinking water, many athletes forget about this necessity. However, we must not forget that adhering to a fluid intake regimen is the basis of effective and productive physical training and good health.

Water is a fundamental component of an athlete's health and performance. Proper hydration helps regulate body temperature, supports muscle and joint function, enhances endurance, and prevents dehydration-related issues such as fatigue and cramps. Even mild dehydration can negatively impact athletic performance and increase the risk of injuries. Therefore, athletes must prioritize drinking enough water before, during, and after exercise to maintain peak performance and recovery.

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