**MEANING OF CARBOHYDRATE EXCHANGE UNDER LOADS**

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Physical health, the state of immunity is directly related to healthy eating. The key to good health, high efficiency and wellness is a lifestyle whose elements do not cause damage to the normal functioning of the body. The components of a healthy lifestyle are a balanced diet, compliance mode of work and rest, the use of various measures to restore vitality, spent in significant mental and physical activity.

The main sign of a living organism is metabolism. In the organism plastic processes go on continuously and in parallel the reverse process of destruction occurs. The normal course of these processes requires the breaking down of complex organic molecules , as they are the only sources of energy for humans, such substances are proteins, fats and carbohydrates. Carbohydrates are the main energy suppliers. Carbohydrate accounts for about 75% of the food intake and more than 50% of the daily calorie intake. If you exclude carbohydrates from the diet, the consequence can be hypoglycemia, to compensate for which proteins and lipids will be consumed. Carbohydrates participate in many metabolic cellular processes. The regulation of glycogen exchange in muscles provides energy material intensive muscle work and energy consumption at rest. It is known that 100 grams of glycogen is spent on running for about 15 minutes, and the reserves of glycogen in muscles after eating carbohydrate food can be 200-300 grams.

Carbohydrates are the main source of energy, especially in increased muscle work. In adults, more than half of the energy the body receives from carbohydrates. In case of strong fatigue, with large physical loads, the reception of several grams of sugar improves the state of the body. The energy value of 1 g of carbohydrates is 16.7 kJ (4.0 kcal). The daily demand of an adult in carbohydrates is about 0.5 kg. About 70% is oxidized in tissues to water and carbon dioxide, 25-28% of food glucose turns into fat, 2-5% is synthesized into glycogen. The carbohydrate content is maintained at a constant level with sufficient food intake. Excess carbohydrate intake is a widespread phenomenon and is the basis for the formation of excess body weight.

The decrease in blood glucose, which occurs at irregular food intake, inhibits the activity of the cerebral cortex - headaches arise, performance and attention sharply fall. At hypoglycemia, the inhibition of the cerebral cortex develops and emotional reactions increase. If the brain is fed and lifestyle is wrong, the brain’s activity can deteriorate significantly. Helpful starchy carbohydrates: bread, rice and other cereal products, nuts, beans, and potatoes. If the body receives insufficient amount of carbohydrates, they can be synthesized from fats and proteins. For successful implementation of long and hard work it is necessary to replenish the body's carbohydrate reserves. Saturation of the body with carbohydrates contributes to the preservation of a constant concentration of glucose in the blood and thereby increases the efficiency of the person. Proper rational nutrition and regular exercise are essential components of a healthy lifestyle. And most importantly – your body will receive all useful substances, proteins, fats of carbohydrates for healthy functioning