

MAKTABGACHA YOSHDAGI BOLALAR FIZIOLOGIYASI VA GIGIYENASI.

Toshkent Amaliy fanlar universiteti

Maktabgacha ta'lim metodikasi kafedra o'qituvchisi

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Annotatsiya: Mazkur maqola maktabgacha yoshdagi bolalarni fiziologiyasi va gigiyasi haqida daslabki tushunchalari, organizmda moddalar va energiya almashinuvi, oqsillar almashinuvi, uglevodlar, yog'lar almashuvi haqida ma'lumotlar berilgan.

Kalit so'zlar: moddalar, energiya, oqsillar, uglevodlar, yog'lar, nerv sistemasi

PHYSIOLOGY AND HYGIENE OF PRESCHOOL CHILDREN.

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Annotation: This article provides basic concepts of the physiology and hygiene of preschool children, information on the metabolism of substances and energy in the body, the metabolism of proteins, carbohydrates, fats.

Keywords: substances, energy, proteins, carbohydrates, fats, nervous system

ФИЗИОЛОГИЯ И ГИГИЕНА ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА.

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Аннотация: В данной статье представлены основные понятия физиологии и гигиены детей дошкольного возраста, информация о метаболизме веществ и энергии в организме, метаболизме белков, углеводов, жиров.

Ключевые слова: вещества, энергия, белки, углеводы, жиры, нервная система

Metabolism of substances and energy in the body. The process by which a person receives food from the external environment, its transformation and digestion in the body, and the excretion of the resulting waste products is called metabolism. As a result of metabolism, energy is generated. This energy is used by organs to function, cells multiply, a young organism grows and develops, and body temperature is maintained. Metabolism occurs through two closely related processes, namely assimilation and dissimilation. The transfer of food components

to cells is called assimilation. As a result of assimilation, the components of cells are renewed and they multiply. The younger the organism, the more active the assimilation is, which ensures the growth and development of the young organism. The breakdown of worn-out components of cells is called dissimilation. As a result, energy is generated. Residual substances formed as a result of dissimilation are excreted through the excretory organs. In a healthy organism, these two processes are in balance. Physical labor, sports, and an active lifestyle lead to the renewal of tissues in the human body, keeping the organism young, healthy, and active. The main nutrients involved in metabolism are proteins; fats, carbohydrates, mineral salts, vitamins, and water.

Protein metabolism. Proteins, that is, proteins, play an important role in the healthy, normal growth, health, and development of the human body. They perform two physiological functions in the body, namely plastic and energy. The plastic significance of proteins is such that they are part of all cells and tissues. The energy function of proteins is that when they break down, energy is generated, for example, when 1 g of protein breaks down, 4.1 kcal. energy is released. This energy is used to maintain the body's temperature, normal functioning of internal organs, human movement and other tasks. Proteins that contain all the amino acids needed by the body are called high-quality proteins. They are found in animal products (meat, fish, salmon, milk and dairy products). Proteins that do not contain some amino acids are called low-quality proteins. They are found in bread and bakery products. For normal growth and development of children, high-quality proteins should make up 80-90% of the daily diet. A lack of high-quality proteins in children's food can lead to stunted growth and development. slows down, resistance to infectious diseases decreases, excitability of the nervous system, mental activity decreases. If there is an excess of proteins, the nervous system, liver and kidney function are disrupted.

Carbohydrate metabolism. Carbohydrates are the main source of energy in the body, when 1 g of carbohydrates is broken down, 4.2 kcal of energy is released, 56% of daily energy is formed due to carbohydrates. At 1-1.5 years old, 160-175g, at 1.5-3 years old, 225g, at 3-5 years old, 260g, at 5-7 years old, 280g, at 7-11 years old, 345g, at 11-15 years old, 438g, in adults, the daily amount is 400-500g. Carbohydrates are mainly found in plant foods (bread, potatoes, fruits, melons, sweets). If carbohydrates are consumed in excess, they turn into fat in the body and lead to obesity. If people who do physical labor and play sports consume more carbohydrates than the norm, the part that is not broken down and produces energy turns into glycogen. When glycogen breaks down, energy is generated.

Fat metabolism. Fats are found in cells and, like proteins, perform plastic and energy functions. When 1 g of fat breaks down, it releases 9.3 kcal. of energy. There are two types of fats: animal and vegetable. Animal fats include lard, beef, butter, and fish oils. Vegetable oils include flax, cotton, sunflower, sesame, corn and olive oils. An adult needs an average of 100g of fat per day. 70-75% of the fat consumed should be animal fat, 25-30% vegetable fat.

Children from 6 months to 4 years old need 3.5-4 g of fat per kg of weight, and preschoolers need 2-2.5 g of fat. If there is a lack of fats, the child loses weight, the body's resistance decreases. When fats are consumed in excess, the absorption of nutrients and proteins is impaired. A lack of fats in the daily diet reduces a person's resistance to infectious diseases, the adverse effects of the external environment - cold, and the ability to perform mental and physical work decreases. Excessive consumption of fats leads to obesity.

Metabolism of water and mineral salts. The human body also needs mineral salts and water. A person receives mineral salts mainly with food. A person consumes 10-12.5 g. of table salt per day. Mineral salts ensure the smooth functioning of all functions in the body, including the functioning of the nervous system, blood clotting, It is also necessary for the processes of digestion, gas release, secretion and excretion. Calcium, phosphorus, potassium, sodium, manganese, cobalt, copper, zinc, bromine, iodine, sulfur, iron and other micro and macroelements are also very necessary for the body. If any mineral substance is deficient, various diseases will occur.

Eating habits and food hygiene The food that a child eats in a day should compensate for the energy spent during this time and ensure growth. When feeding children, it is necessary to take into account the ratio of products in food. In general secondary schools and boarding schools, students in the first shift should eat breakfast from 7.30 to 8.00, which is 25% of the daily food norm, second breakfast at 11-12.00, which is 15-20% of the food norm, lunch after returning from school, which is 35% of the food norm, dinner at 19-20.00, which is 20-25% of the food norm. Nutrients are a source of energy and building material.

Therefore, they should eat full-fledged food. Only then will they grow well, be resistant to various diseases. Children's food should contain all the necessary substances, plant and animal products, high-quality products, and be nutritious. Proper organization of nutrition is of great importance. High school students should eat 4 times a day, and young children should eat frequently. When eating, it is necessary to observe personal hygiene, table manners, and table setting. Food

poisoning is common in life. An adult needs an average of 100g of fat per day. 70-75% of the fat consumed should be animal fat and 25-30% vegetable fat.

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