



times and significantly increasing concentration in colon microbiocenosis of facultative anaerobic component of the normal flora - bacteria of genus *Escherichia* - by 52,21 %, *Enterococcus* - 26,48 %. We established dysbiosis in 20,83 % of cases, dysbiosis – in 75 % by changes of taxonomic composition and population level of main, additional and accidental microbiota of colon in patients with chronic hepatitis C. Normal microflora of the large intestine was established in 3 (4,17 %) patients with chronic hepatitis C.

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HYGIENIC EVALUATION OF FATS IN THE DIETARY INTAKE OF PRESCHOOL INSTITUTIONS IN THE TOWN OF CHERNIVTSI

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The problem of children's health under contemporary conditions is of a special importance, as economic and social complications as well as ecological environmental conditions influence upon the rising generation. It is explained by a high sensitivity of children to harmful environmental factors. According to all the WHO data available an alimentary factor is one of the leading determinants of health. An adequate diet is one of the major factors determining the physical development of children, optimal functioning of all the organs and systems, their adaptive-compensatory possibilities and the level of children's health. Fats are one of the chief nutrients in dietary intake of children and adults. According to contemporary view they are not only energy substrate, but they perform a plastic function and take part in important metabolic processes.

Objective: to study and analyze the state of nutrition of preschool children in Chernivtsi by fats constituent.

The state of organized food supply of children attending nine preschool institutions in Chernivtsi was examined by means of the calculation method by copying the data during 10 days from the menu according to the seasons of the year, and then an average amount of products per one child a day was determined and compared with the recommended one. Energy value of food and the content of fats in it were detected by means of specially elaborated program compiled on the basis of I.M. Skurykhin's reference tables. Qualitative and quantitative indices of children's diet were estimated according to the "Food Standards in Educational and Health Institutions" (2004), "Standards of Physiological Requirements of Ukrainian Population in the Major Dietary Substances and Energy" (1999).

The nourishment of children in preschool institutions of Chernivtsi is organized according to group principle: practically healthy children of a certain group get similar by its volume and chemical content food corresponding to average physiological requirements of their organisms in the main nutrients and energy. Children have three meals a day providing 70-80% of their daily diet. The volume of food is distributed according to the time of meals: breakfast – 20-25%, lunch – 35-40%, afternoon snack – 10-15% out of daily energy food value. There was insufficient content of products found that are the sources of fats of vegetable and animal origin (meat, fish, eggs, vegetable oil, milk, dairy products, cheese). The content of ω -3 polyunsaturated fatty acids in all of the preschool institutions was lower than the recommended one. The ratio of ω -6: ω -3 was 32: 1, which is not recommended.

Conclusion. Qualitative and quantitative composition of the daily nutrition ration of children at preschool institutions of Chernivtsi was investigated and analyzed. Analysis of the daily children's diets in 9 preschool institutions of Chernivtsi showed that their food was variable, the order and intervals between meals were kept, as well as the sequence of taking dishes and distribution of energy value.

Hygienic evaluation of fats and polyunsaturated fatty acids constituent was provided. The diets were insufficient in the content of products that are the sources of fats of vegetable and animal origin. The content of ω -3 polyunsaturated fatty acids and ratio of ω -6: ω -3 does not meet the recommended standards. The results obtained serve as the basis for development of recommendations for correction of children actual nutrition at preschool institutions of Chernivtsi.

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THE CONTENT OF CARBOHYDRATES IN DIETARY INTAKE OF PRESCHOOL INSTITUTIONS IN THE TOWN OF CHERNIVTSI

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Carbohydrates are one of the chief nutrients in dietary intake of children and adults. According to contemporary view they are not only energy substrate, but they perform a plastic function and take part in important metabolic processes. An excessive intake of simple carbohydrates on the ground of insufficient intake of dietary fiber in children's organism promotes constipation, diverticulosis, intestinal dysbacteriosis resulting in metabolic disorders, and thus creating the preconditions for the development of diabetes mellitus and diseases of the bile ducts. Being an anti-toxic component of food, dietary fiber prevents absorption of toxic and carcinogenic substances in the intestines, favours the formation of normal intestinal microflora, increasing the body resistance to unfavourable environmental factors.

Objective: to study and analyze the state of nutrition of preschool children in Chernivtsi by carbohydrate constituent.



The state of organized food supply of children attending nine preschool institutions in Chernivtsi was examined by means of the calculation method by copying the data during 10 days from the menu according to the seasons of the year, and then an average amount of products per one child a day was determined and compared with the recommended one. Energy value of food and the content of main nutrients in it were detected by means of specially elaborated program compiled on the basis of I.M.Skurykhin's reference tables. Qualitative and quantitative indices of children's diet were estimated according to the "Food Standards in Educational and Health Institutions" (2004), "Standards of Physiological Requirements of Ukrainian Population in the Major Dietary Substances and Energy" (1999), and "Standards of Physiological Requirements in Energy and Dietary Substances for Various Age Groups in Russian Federation" (2008).

The nourishment of children in preschool institutions of Chernivtsi is organized according to group principle: practically healthy children of a certain group get similar by its volume and chemical content food corresponding to average physiological requirements of their organisms in the main nutrients and energy. Children have three meals a day providing 70-80% of their daily diet. The volume of food is distributed according to the time of meals: breakfast – 20-25%, lunch – 35-40%, afternoon snack – 10-15% out of daily energy food value. There is more white bread in children's diet (45% more), and rye bread is absent. Excess of cereals, beans, macaroni should be noted (37,8% more) as well as pastry (13,3% more). An average amount of various vegetables (except potato) is within the recommended norm. At the same time fruit deficiency is found (75% less).

The analysis of carbohydrate ingredients in diets showed that general content of carbohydrates in the diet of one preschool institution (PI) was within the norm, and in the remaining ones it was 3,5-12,4% less than that of recommended one. The amount of dietary fiber in children's diets of all the preschool institutions is insufficient (1,96-2,1 times less than that of recommended one). The analysis of seasonal dynamics of the dietary fiber content showed that it is the least in spring in all the preschool institutions ($4,71 \pm 0,49$ mg/day). In summer and autumn it increases gradually ($4,95 \pm 0,69$ and $5,01 \pm 0,64$ mg/day respectively), till the highest values in winter ($5,11 \pm 0,64$ g/day).

In our opinion the main reasons of carbohydrate imbalance in children's food ration are the following: increase of consumption of food products, which are high-caloried, reach of simple carbohydrates and poor of dietary fiber (white bread, macaroni and pastry); absence of rye bread; deficiency of vegetables and fruit as a sources of dietary fiber and pectin.

Conclusion. The results obtained have shown, that daily children's diets in 9 preschool institutions were variable, the order and intervals between meals were kept, as well as the sequence of taking dishes and distribution of energy value. There is qualitative and quantitative deficiency of taking the main foods observed causing reduced energy value of the diet. Percentage composition of simple carbohydrates in a daily diet is in an average two times higher than that of the recommended norm. The content of dietary fiber in all the preschool institutions was lower than the recommended one. The results obtained and conclusions drawn made the basis for recommendation of measures concerning the correction of real diets of preschool children.

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NUTRITION PROBLEMS IN TROPICAL REGIONS

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Nowadays many countries with dry climate have problems with rational nutrition because of the lack of natural resources. They can't effectively solve these problems and it leads to negative consequences. In Africa one out of every three children is underweight. Malnutrition is continuing to be implicated in more than half of child deaths worldwide. Deaths of 6 million children (55% of the total) are either directly or indirectly attributable to malnutrition.

The objective of the study was to analyze the problems of nutrition in the tropics.

In areas like savannah and half-deserts food of animal origin is used more, in humid regions food of plant origin prevails. Energy value and quality of nutrition do not meet physiological requirements of population and in some cases results in famine.

In arid regions of Asia, Africa date palms are grown. In Indonesia and Polynesia breadfruit and jackfruit trees are cultivated. Mango, manihot, tamarind, medlar are used in South Asia; pineapple, guava, avocado - in Central America. All these plants have good nutritional value and can help with hypovitaminosis, but their significant deficiency is the lack of protein. In addition, they do not contain enough of the essential acids. Therefore, with their predominance in daily diet protein deficiency and anemia occur.

Protein deficiency sometimes causes kwashiorkor. This disease affects muscles and leads to the loss of ability to work and physical strength, as well as swelling and anemia. Usually it occurs in countries where most of the diet consists of cassava.

Poverty, low cultural level of population and poor food quality result in serious consequences and cause diseases such as sprue, alimentary dwarfism, diarrhea, anemia, liver cirrhosis, debility, cachexia. Due to food contamination bacterial infections, helminthiasis, zoonotic infections, food poisoning, and enzymopathy occur.

Vitamin deficiency diseases are: malignant anemia, scurvy, xerophthalmia, beri-beri, rickets, keratomalacia, pellagra, ariboflavinosis etc. Minerals deficiency or excess amount of trace elements causes endemic goiter, caries, teeth fluorosis, rickets, iron deficiency and microcytic hypochromic anemia, Keshan disease, alimentary selenosis.