

## MEDICAL-PRACTICAL ANALYSIS OF SCHOOL FOOD HYGIENE AND CHILDREN'S HEALTH

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### **Annotatsiya**

Maktab yoshidagi bolalar salomatligi ularning rivojlanishi, o'qishdagi muvaffaqiyati va kelajakdagi sog'lom hayot tarzining asosi hisoblanadi. Shu sababli, ularning ovqatlanishi va ovqatlanish muhitining gigiyenik holati tibbiyotda alohida e'tibor talab etadi. Noto'g'ri ovqatlanish, yaroqsiz oziq-ovqat mahsulotlari yoki sanitariya-gigiyena talablariga javob bermaydigan sharoitlar – bolalar salomatligiga jiddiy xavf tug'diradi. Ushbu maqolada maktab ovqatlanish tizimi holati, gigiyenik talablar, mavjud muammolar va ularni bartaraf etish yo'llari tibbiy-amaliy nuqtai nazardan tahlil qilinadi.

### **Kalit so'zlar**

ovqat, gigiyena, kasalliklar, salomatlik, anemiya, semizlik, ratsional ovqatlanish

## NUTRITION HYGIENE AT SCHOOL AND CHILDREN'S HEALTH: A MEDICAL AND PRACTICAL ANALYSIS

### **Annotation**

The health of school-age children is the foundation of their development, academic success, and a healthy lifestyle in the future. Therefore, their nutrition and the hygienic condition of their eating environment require special attention in medicine. Improper nutrition, unsafe food products, or conditions that do not meet sanitary and hygienic standards pose serious risks to children's health. This article analyzes the state of the school nutrition system, hygienic requirements, existing problems, and ways to address them from a medical and practical perspective.

### **Key words**

food, hygiene, diseases, health, anemia, obesity, balanced nutrition

## ГИГИЕНА ПИТАНИЯ В ШКОЛЕ И ЗДОРОВЬЕ ДЕТЕЙ: МЕДИЦИНСКИЙ И ПРАКТИЧЕСКИЙ АНАЛИЗ

### Аннотация

Здоровье детей школьного возраста является основой их развития, успехов в учебе и здорового образа жизни в будущем. Поэтому их питание и гигиеническое состояние среды питания требуют особого внимания в медицине. Неправильное питание, некачественные пищевые продукты или условия, не соответствующие санитарно-гигиеническим требованиям, представляют серьезную угрозу для здоровья детей. В данной статье с медицинской и практической точки зрения анализируются состояние системы школьного питания, гигиенические требования, существующие проблемы и пути их устранения.

### Ключевые слова

пища, гигиена, болезни, здоровье, анемия, ожирение, рациональное питание.

### Main part

**School catering system and hygienic requirements** The school catering system not only meets the daily energy needs of students, but also directly affects their physical and mental development and health. Therefore, it is very important to strictly adhere to the school catering system and its sanitary and hygienic requirements.

The nutrition system, organized on the basis of sanitary rules and standards developed by the Ministry of Health of the Republic of Uzbekistan, aims to provide children with safe, high-quality and nutritious food. First of all, the calorie content of school meals should correspond to the age and physical activity of children. This, in turn, is necessary to ensure a high level of mental and physical activity of students. Children aged 7-10 should be given high-energy foods, and middle-grade students should be given medium-calorie foods. Since children's bodies are growing rapidly, their food should be balanced and contain all the necessary nutrients: proteins, carbohydrates, fats, vitamins and minerals.

The diet of school-age children should be at least 4 times a day. The first breakfast should be 25% of the total diet, the second breakfast 5-10%, lunch 35-40% and dinner 25%. In three meals, breakfast should be 30%, lunch 45-50%, and dinner 20-25%.

This plays an important role, especially in ensuring a high level of efficiency of school education. Secondly, the implementation of hygienic requirements in the

process of preparing meals in school canteens deserves special attention. Meals should be prepared only after heat treatment. Heat treatment is important in destroying harmful microorganisms present in food. In addition, the cleanliness of the kitchen environment also plays a major role in ensuring food safety. Each kitchen appliance and container must be regularly disinfected. This increases the risk of foodborne diseases if the necessary sanitary and hygienic requirements are not met.

Therefore, special hygienic clothing should be prescribed for employees working in school canteens and they are required to undergo a medical examination. The importance of a medical examination is that employees may have various infections in their bodies, which can be transmitted to students through food.

In addition, it is necessary to ensure that dishes and kitchen equipment are properly disinfected every day. The disinfection process helps to ensure food safety by destroying microbes and bacteria. In particular, non-compliance with sanitary and hygienic rules during food preparation and distribution can lead to the spread of diseases directly related to food supplies. Therefore, the hygienic condition of kitchens and dining areas should be under constant control. The work of employees in accordance with hygienic requirements is an important factor in maintaining the health of children. Employees must also strictly follow handwashing and other hygiene requirements during work. The importance of handwashing is especially important before and after preparing food, as well as after using the toilet. If employees do not follow the rules of personal hygiene, this can lead to the spread of infections and food poisoning. In addition, compliance with all processes and hygiene requirements in the kitchen is important for ensuring the health of students and preventing the spread of acute infections and other diseases.

**Sanitary and hygienic conditions:** theoretical analysis and potential problems. The sanitary and hygienic conditions in school canteens play an important role in ensuring the health of children. In cases where sanitary and hygienic requirements are not observed in school canteens, a number of problems may arise that negatively affect health. If the ventilation system in the school canteen does not provide the necessary conditions, the air will not be clean, which will affect the quality of food products. Poor ventilation can lead to the growth of harmful microorganisms in food, which can lead to various diseases in children. In addition, improperly processed food can cause digestive disorders and food poisoning. The temperature regime in the kitchen is also important. If the room temperature is not at hygienic standards, it can shorten the shelf life of food and allow

microorganisms to grow. Low temperatures can reduce the quality of food products and have a detrimental effect on students. The nutritional value of foods is also an important factor in assessing the effectiveness of the school catering system. If the calorie and protein content of foods is not appropriate for the age of children, their growth, physical development and mental activity will be negatively affected. Thus, school canteens should prepare foods with appropriate calorie and nutritional values. Based on this theoretical analysis, it was learned that if school canteens do not fully meet sanitary and hygienic requirements, negative consequences may arise for the health of students and their educational process. Therefore, constant monitoring and control are necessary to ensure that the school catering system operates effectively in accordance with hygienic requirements.

**Eating hygiene and its impact on health.** Poor nutrition can lead to a number of health problems in school-age children. Poor hygiene, as well as imbalance or deficiency of nutrients, negatively affect the physical and mental development of the child.

If food hygiene is not followed, the following diseases may occur: Anemia: As a result of improper organization and imbalance of nutrition, anemia is widespread among children. Anemia is mainly associated with a lack of iron, folic acid and vitamin B12. This problem can reduce the physical strength of students, increase fatigue, and negatively affect the learning process in general. Anemia also negatively affects the child's mental activity, because the brain does not receive enough oxygen, which leads to a decrease in attention and concentration.

*Weakened immunity:* Poor nutrition can weaken children's immune systems. Vitamins and minerals in food, especially vitamins C, D, A, and zinc, play an important role in strengthening immunity. A deficiency in these substances reduces the ability of children's bodies to fight various infections and diseases. In negative cases, this can lead to frequent illnesses and the development of serious complications.

*Food poisoning:* Poor hygiene and storage of food, as well as improper preparation of food, increase the risk of food poisoning. Infectious diseases can be spread by bacteria, viruses or parasites. This can harm a child's body, worsen health and reduce academic performance. To prevent food poisoning, it is necessary to observe high hygiene standards and proper food preparation and storage conditions.

*Digestive Disorders (Dyspepsia):* Poor nutrition and nutrient deficiencies, as well as children not eating enough and in the right order, can lead to digestive disorders. Dyspepsia, or digestive discomfort (difficulty in digestion, nausea, stomach pain), is a common problem in children. These disorders negatively affect

the physical and mental state of the child and reduce the overall health and academic performance of students. Obesity is a disease characterized by excessive accumulation of adipose tissue in the body. Body weight is usually high, but the main focus is on the body mass index (BMI): 18.5-24.9 is normal, 25-29.9 is overweight, and 30 and above is obese. Unfortunately, this disease is currently observed in many children, and the reason is poor nutrition and lack of physical activity. Along with this, genetic predisposition and hormonal disorders can also be the cause, but the main reason for the obesity of healthy children is poor nutrition. Obesity increases the risk of developing many dangerous diseases. For example: cardiovascular diseases, diabetes, hypertension, steatosis, diseases related to the respiratory system.

*The impact of a healthy diet:* A healthy and balanced diet has a positive effect on a child's physical and mental development. Proper nutrition helps provide a child with all the nutrients they need. This, in turn, helps strengthen a child's immune system, support growth and development, improve cognitive abilities, and maintain overall health. Through healthy eating, children gain energy, feel better when concentrating, perform physical activities effectively, and succeed in school.

Proper nutrition also helps the body fight diseases and strengthen the immune system.

**Preventive recommendations.** In order to increase the efficiency of the school catering system and maintain the health of children, it is necessary to take a number of preventive measures. The following preventive measures are recommended: It is necessary to strengthen sanitary control in school canteens, ensure full compliance with hygienic requirements in the processes of food preparation and storage. This will ensure not only the quality and safety of food, but also the general health of the child. For sanitary control to be effective, it is necessary to regularly conduct control groups and inspections. It is important to conduct regular monitoring by medical personnel, constantly check the hygienic condition of the school canteen and the nutritional value of food, monitor the health of children and provide medical care if necessary. Monitoring with the participation of medical personnel helps to identify emerging problems with children's health at an early stage. It is very important to conduct awareness-raising activities on hygiene and nutrition culture among parents and students, to familiarize children and their families with the rules of proper nutrition and hygiene. Awareness-raising activities help to form a culture of healthy eating at school and in the family. This, in turn, will encourage the healthy development of children and proper self-care. It is necessary to conduct laboratory analysis of food samples once a month to check the quality and safety of food prepared in the



school canteen. It is effective in determining the compliance of food with sanitary and hygienic requirements, and in preventing chemical and biological hazards in food. These preventive measures help to improve the school nutrition system, maintain children's health, and ensure their success in the educational process.

**Conclusion:** Properly organized nutrition for school-age children ensures not only their physical, but also mental development. Full compliance with hygienic requirements for nutrition plays an important role in maintaining children's health and preventing various infectious diseases. Otherwise, malnutrition and conditions that do not meet sanitary requirements can lead to problems such as anemia, weakened immunity, food poisoning, and digestive system disorders in children. At the same time, regular monitoring and control of the hygienic condition of school canteens and the catering system, as well as full compliance with sanitary and hygienic requirements, are necessary.

Strict hygiene standards in food preparation and storage, medically examined and hygienic clothing for staff, and disinfection of dishes and kitchen equipment ensure the quality and safety of school meals. Such measures are effective in protecting children's health and help optimize their learning and development. Research and practical observations show that to improve the school nutrition system, it is very important not only to comply with medical and sanitary-hygienic requirements, but also to form a nutrition culture among parents and students, and to carry out promotional work. It is also necessary to conduct regular laboratory analysis of food samples in schools, check their quality and confirm their safety. In order to improve the school nutrition system, ensure the health and positive impact on the overall development of children, it is necessary to work together, strengthen constant control and monitoring, and ensure compliance with hygienic requirements. A proper school nutrition system not only supports the healthy growth of children, but also helps to increase their academic success. Therefore, it is an urgent task to improve the hygienic condition of the food system in every school, conduct constant monitoring, and introduce advanced measures to protect children's health.

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