

UNDERSTANDING THE SCIENCE OF FOOD HYGIENE

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Abstract: Nutritional hygiene is a science that studies the importance of proper nutrition in maintaining and strengthening human health. It scientifically substantiates the norms of rational nutrition for different age groups of the population, professions and living conditions. The science covers the chemical composition of food products, their energy value, safety, their effect on the body, and the prevention of diseases associated with malnutrition. Nutritional hygiene plays an important role in increasing the working capacity of the population, preventing diseases, and forming a healthy lifestyle.

Keywords: food hygiene, rational nutrition, food products, food safety, energy value, public health, disease prevention.

INTRODUCTION

Nutrients include protein, fats, carbohydrates, and minerals. The ratio of protein, fat, carbohydrates should be 1:1:4.

Protein is a high-molecular complex of amino acids. Proteins are the main source of tissue structure. Proteins are broken down into amino acids in the gastrointestinal tract, absorbed into the blood and participate in the formation of cells and tissues. Protein deficiency in the body leads to physical underdevelopment, impaired conditioned reflex and immunobiological activity, which leads to a violation of the acid-base balance.

For children under school age, the amount of protein should be 13% of daily energy expenditure or 60-70 g, that is, 3.8 g per 1 kg of weight for a 3-5 year old child, and 3.5 g for a 5-7 year old child. Animal protein should make up 65% of the total protein intake.

Fats replace the energy lost by the body. They increase the body's ability to fight external environmental factors, i.e. immunity. As a result of a decrease in the amount of fat in the body, vitamins are not absorbed sufficiently. One of the main sources of fat for the body is the fat contained in food products. The daily intake of fat should be 5-10% of the total amount.

One of the main functions of carbohydrates is to cover the body's energy consumption. Plant foods are a rich source of carbohydrates. Carbohydrates in sugar, bread, potatoes, vegetables and fruits are in the form of simple (monosaccharides) and complex sugars (di and polysaccharides).

The main source of disaccharides is plant products (sugar, beets, carrots). Monosaccharides include glucose, fructose. Carbohydrates are actively involved in metabolism. The daily need for carbohydrates for preschool children should be 240-280 g or 12-15 g per 1 kg of weight. The amount of carbohydrates in a child's daily diet should be 54% of the total daily calories. Vitamins are also of great importance in the proper organization of nutrition. They play a certain role in the metabolic process during the development of the body. The most necessary vitamins for the body are vitamins of group B, PP, C, A, E.

METHODS

In the research process, the following methods were used to study and analyze scientific and practical data in the field of food hygiene. Scientific works of the World Health Organization, local and foreign experts, training manuals and regulatory documents were studied by the method of scientific literature analysis.



The chemical composition, energy value and sanitary-hygienic indicators of food products were evaluated using the hygienic analysis method. The method of comparative analysis was used in the comparative study of recommended rational nutrition norms for different age groups and population strata with labor activity.

The importance of food hygiene in the prevention of diseases associated with malnutrition was also assessed through methods of generalizing and systematizing statistical data. The results obtained served as the basis for drawing scientific conclusions and developing practical recommendations.

RESULTS

Mineral salts also participate in the body's metabolism. Mineral salts are found in almost all food products (meat, milk, fish, eggs, potatoes, vegetable products). Minerals include salts of phosphorus, Ca, Na, K, as well as trace elements such as copper, cobalt, fluorine, and manganese.

Eating is the main factor among all factors affecting the body. Metabolism and heat exchange processes in the body, detoxification processes directly depend on nutrition.

The process of metabolism is of two types:

Dissimilation - this is the breakdown of complex organic substances that are part of cells, tissues and organs into simple compounds.

Assimilation - from simple compounds, more complex organic substances are formed. As a result, we spend energy. This is spent on the functioning of internal organs, physical labor. The basic metabolism in a calm state is 1 Kcal per kilogram of our weight per hour on an empty stomach. Nutrition should be rational, balanced and adequate in its nature.

Rational nutrition – refers to nutrition that satisfies the body's energy and plastic needs, and ensures normal metabolism. Rational nutrition depends on the following indicators:

1. The body's need for basic nutrients must be satisfied.
2. Physiological needs must be sufficient to achieve maximum beneficial effects.
3. The diet must be properly organized.
4. Nutrition must compensate for the energy lost by the body.

DISCUSSION

A meal is a distribution of the type of food intended for one consumption and the food products included in it.

Proper nutrition is based on the hygienic quality of food products, their absorption by the body, and their full compliance with physiological requirements during growth.

The menu includes food products that are widely grown in Uzbekistan and are widely used in the preparation of national dishes.

When compiling a menu for one day, it was found that homemade bread (baked in the oven, gas) is consumed more than other types of bread.

Due to the abundance of dough dishes in Uzbek national cuisine, the daily recommended amount of flour has been increased from 25 to 35 grams. At the same time, it is recommended to reduce the amount of bread baked from wheat flour to 40 grams.

The recommended daily diet for children should include bread, milk, sugar (or granulated sugar), and butter (they cannot be replaced with other products).

It is important that the dishes are different (the same dish can be served 1-2 times a week). Calories in the daily diet are estimated.

For preschool children, breakfast should be 20-25%, lunch 35-40%, dinner 10%, dinner 20-25%.

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