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HYGIENIC ASSESSMENT OF THE ACTUAL NUTRITION OF WOMEN IN THE CLIMACTERIC PERIOD

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Abstract
Nutrition is one of the key factors in maintaining a normal physiological state and work capacity at any age. A balanced diet appropriate to age has a positive effect on the development of aging processes in the body and on the nature of changes occurring in its various systems. Rational nutrition is an essential component of a healthy lifestyle, as well as prevention and treatment of most non-communicable diseases.
Nutrition serves as a means of normalizing the body's condition and maintaining high performance. The main elements of rational nutrition include compliance with physiological needs in quantitative and qualitative terms, balance, and an appropriate dietary regimen. A balanced diet is defined as nutrition that ensures optimal proportions of nutrients and biologically active substances capable of exerting their maximum beneficial biological effect in the body. The principles of balance between proteins, fats, and carbohydrates have been studied and developed to the greatest extent.
Keywords: balanced nutrition, proper dietary regimen, biologically active substances, nutritional needs, physiological condition.

Nutrition is one of the factors that support normal physiological condition and work capacity at any age. Balanced nutrition according to age positively influences aging processes and the nature of changes occurring in various body systems. Rational nutrition is a crucial part of a healthy lifestyle and the prevention and treatment of most non-communicable diseases. Healthy rational nutrition plays a primary role in preventing many diseases.

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The role of individual macro- and micronutrients, as well as minor non-nutritive biologically active food components, in regulating the functional activity of organs and systems and reducing the risk of certain diseases has been elucidated. Currently, micronutrient deficiency occupies a leading position among factors negatively affecting public health, contributing to a sharp decrease in the body's resistance to adverse environmental influences due to impaired functioning of antioxidant defense systems and significantly determining the development of secondary immunodeficiency states.

In the Republic of Uzbekistan, the dietary structure of women in the climacteric period is characterized by a decreased consumption of biologically valuable foods such as meat and meat products, milk and dairy products, fish and seafood, eggs, vegetable oil, fruits, and vegetables. At the same time, consumption of bread and flour products, confectionery, salty foods, and potatoes increases significantly. As a result, the following nutritional status disorders come to the forefront: deficiency of animal proteins reaching 18–20% of recommended values, especially among low-income population groups; deficiency of polyunsaturated fatty acids against the background of excessive intake of animal fats; pronounced deficiency of most vitamins, particularly vitamin C (in 80% of those examined), B-group vitamins, and folic acid. The problem of insufficient intake of certain minerals and trace elements—such as calcium (especially important for elderly individuals due to osteoporosis and increased bone fragility), iron, fluoride, selenium, and zinc—remains serious. Dietary fiber deficiency is also significant. The problem of excess body weight and obesity remains relevant in the population of Uzbekistan; it is observed in 48% of adults over 40 years of age, particularly among women.

Rational nutrition is a means of normalizing the body's condition and maintaining high work capacity. Its main elements are compliance with physiological needs in quantity and quality, balance, and a proper dietary regimen. Balanced nutrition ensures optimal proportions of nutrients and biologically active substances capable of exerting their maximum beneficial biological effect in the body. The balance of proteins, fats, and carbohydrates has long been established and represents one of the foundations of nutrition science. For most age and occupational groups, the accepted ratio of proteins, fats, and carbohydrates is 1:1:4 (100 g protein, 100 g fat, 400 g carbohydrates per day), except in cases of heavy physical labor. With advancing age, adjustments are required; in particular, after 50 years of age, it is advisable to reduce fat and carbohydrate intake while maintaining overall balance to decrease caloric content.

Proteins are vital substances essential for life, growth, and development. They perform primarily a plastic function, while also participating in energy metabolism, especially during periods of high energy expenditure or insufficient intake of carbohydrates and fats.

Women in the climacteric period require sufficient protein intake to maintain muscle mass. Since women generally have lower muscle mass than men during the reproductive period, many develop sarcopenic obesity during menopause—characterized by increased fat mass combined with reduced muscle mass. Consumption of animal protein in combination with physical activity helps preserve muscle tissue. Protein deficiency leads to decreased immune defense, endocrine disorders (pituitary, adrenal, and gonadal glands), increased risk of endemic goiter and iron-deficiency anemia, and negative effects on the central nervous system. The daily protein requirement for women over 50 years of age is 70–75 g.

Main sources of animal protein include meat, meat products, eggs, milk and dairy products, and fish. Plant protein sources include legumes such as beans and peas. Processed meat products should be consumed in very limited amounts. Egg consumption should be limited to

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one per week due to high cholesterol content. Fish and seafood intake has virtually no restrictions but should be introduced gradually.

The diet must include sources of calcium and phosphorus, primarily milk and dairy products; lower-fat milk contains more calcium.

Fats are essential dietary components with diverse physiological roles. They provide the highest energy value (9.3 kcal per gram), participate in cellular structure formation, facilitate absorption of vitamins A and D, improve taste, and increase nutritional value. Fat deficiency can cause functional disorders of the nervous system and immune suppression, while excessive intake leads to obesity, atherosclerosis, metabolic disorders, and cardiovascular dysfunction. The physiological norm of fat intake for women over 50 years is 65–70 g per day.

Animal fats contain saturated fatty acids that increase blood cholesterol and triglyceride levels. During menopause, cessation of estrogen synthesis makes the selection of low- or moderate-cholesterol foods particularly important. Foods high in fat include butter, margarine, mayonnaise, nuts, pork, fatty lamb and beef, processed meats, offal, high-fat cheeses, cream, sour cream, whole milk, and caviar. Plant oils and nuts contain mainly polyunsaturated fatty acids that help lower cholesterol levels. Unsaturated fats should also be consumed in moderation.

Balanced nutrition implies dietary diversity tailored to age-related physiological characteristics. Cooking methods such as steaming, baking, or microwave cooking without added fat are recommended. Lean meats and poultry without skin should be preferred (Shaikhova G.I. et al., 2008).

Carbohydrates provide about half of daily caloric intake and serve as the primary energy source. Excess carbohydrate intake contributes significantly to overweight and obesity. The physiological norm for women aged 50 and older is 290–300 g per day. Preference should be given to unrefined carbohydrates and foods rich in dietary fiber.

Dietary fiber promotes satiety, enhances intestinal motility, and reduces absorption of excess carbohydrates. It is abundant in whole grains, wholemeal bread, vegetables, fruits, berries, mushrooms, and bran. Bread and cereals should not be excluded entirely; however, refined pastries should be limited.

Bran is recommended due to its high content of B vitamins and beneficial effects on digestion. Salt intake should be limited, especially due to the risk of hypertension, while herbs and spices can enhance flavor and provide additional health benefits.

In conclusion, nutrition for women in the climacteric period does not require special diets but rather rational nutrition based on gradual dietary adjustments in accordance with age-related physiological and hormonal changes.

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