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FEATURES OF NUTRITIONAL HYGIENE IN CANCER DISEASES

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Abstract. According to WHO estimates, in 2018 cancer caused 9.6 million deaths worldwide, accounting for 30–60% of all deaths. Globally, the number of people diagnosed with tumor diseases is increasing every year. Currently, cancer treatment can be carried out using surgical methods, chemotherapy, radiation therapy, or their combination. To ensure the effectiveness of these treatment methods, adequate provision of essential macro- and micronutrients and vitamins for the patient's body is of great importance [1,4].

Keywords: Patients with cancer, diet, dietary regimen, characteristics.

Introduction. One of the most important components of a comprehensive approach to healthcare is proper nutrition, which plays a crucial role in the health and survival of patients with cancer. Its main purpose is to reduce intoxication processes and to provide energy and balanced biochemical substances in accordance with the body's needs [2,5,6].

The main tasks of nutrition are not only to slow tumor growth, but also to protect the body from carcinotoxicity, meet energy and plastic needs, stimulate immunity, maintain normal body weight, manage deficiencies of macro- and microelements, and improve quality of life [3,11]. Bemorlarni oziqlantirishning uch turi mavjud:

There are three types of patient nutrition: oral nutritional supplementation (sipping — therapeutic oral intake of specialized nutrition in small sips at a rate of 50–100 ml per hour), enteral nutrition (via nasogastric or nasointestinal tube or stoma: percutaneous, endoscopic, laparoscopic, laparotomic), and parenteral nutrition [8].

Main part. The composition of food for patients with cancer should vary depending on the severity of the disease, general rehabilitation conditions, and specific features of treatment. The diet should ensure body detoxification, protection of the liver and bone marrow, inactivation and elimination of carcinotoxins, activation of cellular respiration, antitumor and anti-infectious immune stimulation, restoration of metabolism, and maintenance of homeostasis [9].

Malnutrition is common in cancer patients and is usually associated with significant body weight loss. Malnutrition can be considered present when a patient is unable to cover more than 60% of energy requirements independently for 1–2 weeks. The oncological process is characterized by muscle loss, which significantly contributes to reduced physical capacity and decreased effectiveness of therapeutic methods [11].

Adequate protein intake is recommended mainly from protein-rich plant sources (legumes), poultry, lamb, veal, large amounts of fresh vegetables, salads, fruits, as well as oats, wheat and corn grains, whole-grain bread, and brown rice. In addition, milk and fermented dairy products, egg yolk, sugars only in the form of honey, and beverages such as all natural drinks without chemical preservatives (natural tea, fruit and vegetable juices containing high amounts of vitamin C and lactic acid) are recommended. Among



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vegetables, garlic, onion, leek, and black radish are particularly potent and have been identified as providing special protection against gastric and colorectal cancer as well as prostate cancer. Especially high consumption of beetroot, red and white cabbage, cauliflower, and broccoli should be included in the diet [3,6].

It should be noted that beetroot juice slows the respiration and growth of cancer cells by 4–12 times. It is recommended to drink 1 liter of juice after meals, divided into three portions. A concentrate can be prepared from pressed beetroot (usually 1 kg of beetroot yields about 25 g), which is taken orally dissolved in yogurt or mineral water. Even in lung cancer, taking smoking into account, increasing the consumption of fruits and vegetables is estimated to reduce the risk of lung cancer by 20–33% [1].

The inclusion of seaweed (laminaria) in the diet of cancer patients is clearly recommended (it is preferable to take 1 teaspoon of powder three times a day). This enhances the effectiveness of treatment and rehabilitation measures; with regular intake, overall well-being gradually improves, intestinal function is normalized, blood parameters (hemoglobin, erythrocytes) improve, and body weight increases [2].

The use of chlorinated water is not acceptable, and animal fats subjected to repeated heat treatment are strong oxidants. Plant oils (sunflower, corn) should not be heated in their pure form [12]. To enhance the antioxidant properties during cooking, it is recommended to add palm oil to pure plant oils [10]. High consumption of processed meats, sweets, potatoes, and canned foods has been shown to increase the relative risk of colorectal cancer by 46% in studies of nurses' health [8]. The active hormonal form of vitamin D, obtained from sunlight and seafood, has strong anticancer properties [7].

Conclusion. Patients with cancer should receive sufficient kilocalories and protein from their diet in order to maintain an adequate amount of muscle mass. However, the experiences noted above indicate that glucose consumption is not justified, as it has the ability to intensify inflammatory processes. Vegetables and fruits, along with their vitamin C and beneficial components, are recommended not only for combating cancer but also for its prevention. The consumption of plant and animal fats subjected to thermal processing is prohibited, as they are converted into trans fats and exert strong oxidative effects. It is necessary to monitor adequate intake of minerals, especially ensuring sufficient levels of vitamin D in the body.

REFERENCES:

1. Azizova F. L., Boriboyev E. M., Boriboyeva M. M. Hygienic analysis of body mass index among workers at a tobacco products manufacturing enterprise // *Medical Journal of Young Scientists*. – 2024. – No. 12 (12). – P. 272–278.
2. Baymamatovich O. B. et al. Analysis of socio-hygienic indicators in patients with oral cavity cancer. – 2025.
3. Baymamatovich O. B. et al. Hygienic analysis of the diet of workers of the mining and metallurgical plant // *Eureka Journal of Health Sciences & Medical Innovation*. – 2026. – Vol. 2. – No. 1. – P. 266–272.



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4. Baymamatovich O. B. et al. Hygienic assessment of the nutritional status of workers of a mining and metallurgical plant // American Journal of Applied Medical Science. – 2026. – Vol. 4. – No. 1. – P. 161–165.
5. Baymamatovich O. B., Furqatovnar O. G. Hygienic assessment of the nutritional status of patients with oral cancer. – 2025.
6. Ermatov N. J. et al. Hygienic analysis of the nutritional condition of the employees of a textile enterprise. – 2024.
7. Fleischauer A. T., Arab L. Garlic and cancer: a critical review of the epidemiologic literature // Journal of Nutrition. – 2001.
8. Fleischauer A. T., Poole C., Arab L. Garlic consumption and cancer prevention: meta-analyses of colorectal and stomach cancers // American Journal of Clinical Nutrition. – 2000.
9. Hsing A. W., Chokkalingam A. P., Gao Y. T., Madigan M. P., Deng J., Gridley G., Fraumeni J. F. Allium vegetables and risk of prostate cancer: a population-based study // Journal of the National Cancer Institute. – 2002.
10. Ortiqov B. B. et al. Hygienic analysis of risk factors among potassium plant workers // Medical Journal of Young Scientists. – 2025. – No. 15 (09). – P. 181–185.
11. Ortiqov B. B. Hygienic analysis of diseases occurring among workers // Medical Journal of Young Scientists. – 2025. – No. 16 (12). – P. 155–159.
12. Sitov A. V., Zuzov S. A., Kukosh M. Yu., Leyderman I. N., Potapov A. L., Khoteev A. J. Practical recommendations for nutritional support of cancer patients. Malignant tumors: RUSSCO practical guidelines No. 3s2, 2022 (Vol. 12). – P. 123–133.

