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SPECIFIC ASPECTS OF NUTRITION FOR THE DISABLED

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Abstract. The article scientifically analyzes the nutritional habits of people with disabilities and their impact on their health. Different types of disabilities cause certain differences in metabolism, energy expenditure and physiological needs. Therefore, it is important to create individual dietary rules and eating habits for this category of people. The study shows the role of medical professionals and family members in the organization of nutrition for disabled people, the need for biologically active substances and the importance of rational nutrition in improving the quality of life.

Keywords. People with disabilities, metabolism, diet, overweight, vitamin.

ОСОБЕННОСТИ ПИТАНИЯ ЛЮДЕЙ С ИНВАЛИДНОСТЬЮ

Аннотация: В статье научно проанализированы особенности питания лиц с инвалидностью и его влияние на состояние здоровья. Различные виды инвалидности обуславливают изменения обмена веществ, энергетических затрат и физиологических потребностей. В связи с этим для данной категории лиц важным является составление индивидуальных правил диетотерапии и режима питания. В исследовании показана роль медицинских специалистов и членов семьи в организации питания инвалидов, рассмотрены потребности в биологически активных веществах, а также значение рационального питания для улучшения качества жизни.

Ключевые слова: лица с инвалидностью, обмен веществ, диетическое питание, избыточный вес, витамины.

Аннотация. Мақолада ногиронлиги бор шахсларнинг овқатланиши усусиятлари ва уларнинг саломатлигига таъсири илмий жиҳатдан таҳлил қилинган. Ногиронлик турлари моддалар алмашинуви, энергия сарфи ҳамда физиологик эҳтиёжларда муайян фарқларни келтириб чиқаради. Шу боис ушбу тоифадаги шахслар учун индивидуал парҳез қоидалари ва овқатланиш тартибини тузиш муҳим ҳисобланади. Тадқиқотда ногиронлар овқатланишини ташкил этишда тиббиёт мутахассислари ва оила аъзоларининг ўрни, биологик фаол моддаларга бўлган эҳтиёж ҳамда рационал овқатланишнинг ҳаёт сифатини яхшилашдаги аҳамияти кўрсатилган.

Калит сўзлар. Ногиронлиги бор шахслар ,модда алмашинуви, парҳез овқатланиш, ортиқча вазн , витамин.

Introduction. Nutritional factors play an important physiological and biological role in human health. In particular, the organization of proper nutrition for persons with disabilities is one of the decisive factors in their vital activities, disease prevention and rehabilitation. Decreased movement activity, changes in metabolic processes, blood circulation and certain limitations in the functioning of internal organs in persons with physical disabilities require the organization of their diet based on a special approach.

Relevance. Today, the number of people with disabilities in the world is increasing every year. According to the World Health Organization, approximately 15% of the population has various forms of disability. In Uzbekistan, the issue of maintaining the health of this group and improving their quality of life is also being considered at the state policy level. People with disabilities often need special nutrition due to limited physical activity, impaired blood circulation and metabolism, overweight or a tendency to problems with the musculoskeletal system. In addition, improper nutrition can increase their risk of cardiovascular, diabetes, and musculoskeletal diseases. From this point of view, the development and implementation of scientifically based recommendations for the nutrition of people with disabilities is one of the most urgent tasks today.

The purpose. The main goal of this study is to study the nutritional characteristics of people with disabilities, to develop rational dietary recommendations that meet the needs of their bodies, and to determine practical measures aimed at improving the quality of life.

Tasks. To achieve the goal, the following tasks were defined: 1. Analysis of changes in metabolism, energy consumption and physiological needs of people with disabilities. 2. Identifying the main problems encountered in nutrition in this category (obesity, blood circulation disorders, vitamin and mineral deficiency, etc.). 3. Development of the principles of rational nutrition on a scientific basis and evaluation of their impact on the health of persons with disabilities. 4. Providing practical recommendations for choosing dietary products (calorie control, protein, fat, carbohydrate, vitamin and mineral balance). 5. Elucidation of the role of medical workers, nutritionists and family members in the organization of meals for persons with disabilities.

The main part. In people with disabilities, metabolism is often slowed down, and energy expenditure is reduced due to reduced activity. Metabolism is the process of assimilation of nutrients, production and redistribution of energy in the body. It occurs in two stages: Catabolism - the breakdown of nutrients to produce energy. Anabolism - the process of building and repairing new tissues. The basal metabolic rate (BMR) depends on age, gender, muscle mass and hormonal status, and in a healthy person it accounts for 60-70% of daily energy expenditure. Metabolism is often slowed down in people with disabilities. Metabolic processes are often slowed down in people with disabilities. This is explained by the following reasons: a decrease in muscle mass due to limited mobility, changes in hormonal activity (for example, thyroid or insulin metabolism), and disorders in the nervous system. As a result, the balance of carbohydrate, fat, and protein metabolism can be disrupted. For example, excessive carbohydrate consumption leads to obesity, and protein deficiency leads to a weakened immune system. People with disabilities have a lower daily energy expenditure than healthy people. The main reasons for this are: limited physical activity, a decrease in the level of basic metabolism, and a slowdown in fluid exchange. Therefore, they are at a higher risk of gaining excess weight

or, conversely, losing weight. Energy expenditure varies depending on the type of disability. For example, while energy expenditure is significantly reduced in people with reduced mobility, in some cases energy expenditure may be high in neurological diseases. The following nutritional needs are important for people with disabilities: Proteins - for the restoration of muscle tissue and the functioning of the immune system (1.0–1.2 g/kg in the daily diet). Fats - as a source of energy, but in moderation (25–30% of the daily diet). Carbohydrates - the main source of energy, but fast-digesting carbohydrates should be limited. Vitamins and minerals - calcium, magnesium, vitamin D (for the bone system), B vitamins (for the nervous system) Fluids - at least 1.5–2 liters per day (due to reduced mobility, special attention should be paid to water and electrolyte balance). A properly designed diet not only improves metabolism, but also increases the quality of life of people with disabilities. Proper organization of the diet helps to maintain optimal metabolism, immune system function, and overall energy expenditure. In this process, the cooperation of medical professionals, dietitians, and family members is of great importance. The role of medical professionals. Assess the general health of persons with disabilities, provide dietary recommendations for somatic and chronic diseases, monitor the prevention of complications associated with nutrition (obesity, blood pressure, diabetes), and develop dietary recommendations based on the individual's condition. Their role is to create a diet taking into account metabolism, energy expenditure, and physiological needs, ensure a balance of proteins, fats, carbohydrates, vitamins, and minerals, develop special diets (for diabetes, cardiovascular, or gastrointestinal diseases), constantly monitor the effectiveness of the diet and change it if necessary.

The role of dietitians. Proper nutrition for people with disabilities is essential for maintaining their health, ensuring metabolic balance, and improving their quality of life. Dietitians play a central role in this process as key professionals. They play a key role in developing a diet based on the individual's needs, taking into account the body's needs, and preventing complications. Their duties include:

Dietitians draw up an individual diet plan based on the age, gender, mobility, diseases and metabolic characteristics of persons with disabilities. For example, due to reduced energy consumption in people with limited mobility, it is necessary to limit excess fat and fast-digesting carbohydrates in the diet.

2. Taking into account energy and physiological needs. Proteins - to maintain and restore muscle mass. Fats - as a source of energy, but in moderation. Carbohydrates - as the main source of energy, but under control. Vitamins and minerals - to support the bones, muscles and nervous system. Dietitians determine these needs and balance the composition of the daily diet.

3. Preventing obesity or weight loss in people with disabilities. Reducing complications associated with diabetes, cardiovascular disease, and the gastrointestinal system. Developing special dietary programs (for example, a diabetic diet, limiting salt in hypertension, increasing calcium and vitamin D in musculoskeletal problems). Strengthening immunity through rational nutrition.

4. Supervision and advice. Dietitians not only develop a diet plan, but also monitor its effectiveness. They revise the diet if necessary by monitoring blood tests, weight and metabolic indicators. At the same time, they advise and educate family members and caregivers on nutritional rules. Dietitians play a central role in the proper organization of the nutritional process for people with disabilities.

They develop individual diet plans taking into account metabolism, ensure the physiological needs of the body and prevent complications. Dietitians also work in partnership with medical professionals and family members to improve the quality of life of people with disabilities. The role of family members. It is important to have an understanding of how to prepare various rational dishes to help a person implement his daily eating routine, to implement the recommendations given by dietician and medical staff, to provide psychological support, to create a positive atmosphere during the eating process, and to arouse a person's interest in food and appetite. In addition, family members living with people with disabilities must have the following knowledge: Drinking plenty of clean water and natural drinks. Avoid fried and fatty foods. Include fruits and vegetables, grain products and dairy products in the daily diet, organize meals 4-5 times, in small quantities, but regularly. Use of special dietary supplements according to dietician's recommendations.

Conclusion. In people with disabilities, metabolism often slows down, and energy expenditure decreases due to reduced activity. This condition requires a special approach to the physiological needs of the body. It is necessary to provide enough protein, vitamins and minerals, to limit excess carbohydrate and fat consumption. A properly organized diet is an important factor in maintaining health, reducing complications and increasing the quality of life of people with disabilities. This situation requires a special approach to the physiological needs of the body. It is necessary to provide enough protein, vitamins and minerals, to limit excess carbohydrate and fat consumption. A properly organized diet is an important factor in maintaining health, reducing complications and improving quality of life in persons with disabilities.

Used literature.

1. A.S.Xudaybtrganov,J..Rizaev,B.E.Tuxtarov/Dietologiya asoslari-Toshkent: “Hilol mediya” nfsfriyoti,2020/
2. Шарипова М., Саломова Ш. Парҳез овқатланиш қоидалари. – Тошкент: Фан, 2020.
3. Ўзбекистон Республикаси аҳолисининг ёшига, жинсига ва касбий фаолияти гуруҳлари учун соғлом овқатланишни таъминлашга қаратилган ўртача кунлик рационал овқатланиш нормативлари. СанҚваН № 0007-20
4. Ўзбекистон Республикаси аҳолисининг ёшига, жинсига ва касбий фаолияти гуруҳлари учун соғлом овқатланишни таъминлашга қаратилган ўртача кунлик рационал овқатланиш нормативлари. СанҚваН № 0007-20
5. Maxmudova M.X.,Musayev., U.Yu.,Xudoyberganov A.S., Nutritsiologiya, Toshkent 2025. 249-253 с.
6. M.X. Mahmudova, A.S. Hudayberganov, R.SH. Baratova Assessment of the Hidden Threat of Excessive Salt Into the Body Due to the Use of Bakery Products in Uzbekistan - International Journal of Health Sciences

7. Уралов У., Баратова Р., Раджабов З. УЛУЧШЕНИЕ САНИТАРИИ ПИТЬЕВОЙ ВОДЫ //Евразийский журнал академических исследований. – 2023. – Т. 3. – №. 2 Part 2. – С. 176-179.

8. R.N Abdumuminova, Baratova R.Sh, ZK Bulyaev On The Importance Of The Human Body, Nitrates - The American Journal of Medical Sciences and ..., 2021

9. Иботова Шоира, Баратова Р. Ш. Соғлом турмуш тарзини шакллантиришнинг асосий тамойллари хақида-Материалы Международной научно-практической интернет-конференции «Тенденции и перспективы развития науки и образования в условиях глобализации» Сборник научных трудов Переяслав-Хмельницкий

10. RM Roziqovna, B.R Shamuradovna .Kamqonlikni bartaraf etishda milliy taomlarning o'rnini - indexing, 2024

11. Makhmudova, m. K. (2025). Artificial intelligence – the key to new opportunities in nutrition for people with disabilities. B international bulletin of medical sciences and clinical research (т. 5, выпуск 11, сс. 121–125). Zenodo. <https://doi.org/10.5281/zenodo.17630374>

12.Nutritional characteristics of persons with disabilities M. Kh. Makhmudova¹, A. S. Khhudayberganov².ISSN: 2776-0979, Volume 6, Issue 10, October- 2025. <https://repo.tma.uz/xmlui/handle/1/2204>