



The Macronutrient Needs and Nutritional Provision for Women of Reproductive Age

Karimova Mavluda Khakimovna

Department of Physiology of Karshi State University, PhD.

Received: 2025 19, Jun

Accepted: 2025 28, Jul

Published: 2025 06, Aug

Copyright © 2025 by author(s) and BioScience Academic Publishing. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).



Open Access

<http://creativecommons.org/licenses/by/4.0/>

Annotation: Biomolecules, that is, proteins, fats, carbohydrates, which are considered macronutrients for the functioning of the human body, including the female organism of reproductive age, are of particular extreme importance.

Macronutrients found in the composition of consumed foods belong to the category of irreplaceable nutrients. They are an important factor in the growth and development of the human body in meioria, in substance exchange reactions, in the resistance to diseases and in the increase in resistance to harmful influences of the external environment.

Keywords: reproductive, protein, fat, carbohydrate, vitamins, minerals, atherosclerosis, amino acids, glucose.

Introduction. Biomolecules, that is, proteins, fats, carbohydrates, which are considered macronutrients for the functioning of the human body, including the female organism of reproductive age, are of particular extreme importance.

Macronutrients found in the composition of consumed foods belong to the category of irreplaceable nutrients. They are an important factor in the meiori growth of the human body, substance exchange reactions, resistance to diseases and increased resistance to harmful influences of the external environment [3].

In PQ-4513 on improving the quality and further expanding the scope of medical care provided to women, pregnant and children of reproductive age, the population, first of all, among young people, organized and conducted extensive propaganda and explanatory work on the protection of maternal and Child Health, the self-government of citizens and the family and women committee, together with the media, the formation of a healthy.

Today, the quality and structure of nutrition of various groups of the population is changing on a

global scale, which negatively affects the level of their intake of biologically full-value proteins, vitamins, as well as a number of minerals. In particular, improper, inadequate nutrition is one of the causes of severe prenatal and postnatal morbidity, even premature death, of women of reproductive age. In particular, malnutrition is becoming one of the main factors in the death of mother and child [7].

Accordingly, it is important to study the current nutrition of women of reproductive age in places and develop measures to organize their healthy nutrition.

LITERATURE ANALYSIS AND METHODS

Proteins make up 20% of body weight and 50% of cell dry weight. It is proteins that form the basis of the stem (membrane), nucleus, nuclei, mitochondria, cytoplasm and organelles in which the cell is composed. The function of proteins in the body is diverse, they form the basis of cellular composition, that is, participate in the formation of cells and tissues, participate in muscle contraction, form the basis of enzymes, hormones [6].

Proteins also serve as protection in the body. Proteins neutralize toxins and release them from the body. Blood clotting, the transport of oxygen, carbon dioxide, nutrients through the blood also occurs in the presence of proteins. Proteins are a much more unique nutrient than other macronutrients. At present, the loss of the deficit in relation to it remains one of the main problems in the proper nutrition of people around the world. The food consumed by the vast majority of ordinary, impoverished populations in developing countries is characterized by a lower protein content than the physiological meior level. The main reasons for this are, firstly, the lack of protein foods such as meat, fish, eggs, milk-yogurt, and secondly, in such a population class, the culture of nutrition is much lower, they know that one way to saturate the stomach is plant products (flour, rice, fruits, vegetables, etc.) [4].

It is known that from a lack of vitamin C, dental gums bleed quickly, Synge disease occurs, teeth fall out, a person becomes tired quickly, and his ability to make cocktails decreases, and he quickly suffers from various diseases. In later times, there were thoughts that a persistent lack of this vitamin would lead to cancer (cancer). About this Japanese scientist K.Nishi says that the continuous lack of ascorbic acid in consumer food is one of 3 reasons that lead to cancer [4].

RESEARCH METHODOLOGY. Studies were conducted in women students of reproductive age in the direction of biology, which will be represented at the Faculty of Chemistry and biology of the counter State University in the winter season of 2024. Respondents ranged from 18 to 29 years of age, with a total of 61 female students of reproductive age. Observations were carried out in the questionnaire survey method [1].

The results obtained were processed in the Microsoft Exsel program of the Windows XP operating system [1,2]. The results of the study were compared with the indicators of the physiological demand for nutrients and energy of women students of reproductive age in the direction of biology of the Faculty of Chemistry and biology of Qarsh State University [3].

RESULTS AND DISCUSSION. Macronutrients are one of the nutrients in the body that have mainly plastic and energy value. Its importance plays a special role in reproductive age. Therefore, the fact that the content of proteins, fats and carbohydrates in daily meals is more or less than the norm level can cause corresponding negative changes in the body.

The results obtained indicate that the demand for proteins and fats from the main nutrients contained in the daily diet of female students of reproductive age was noted to be more than normal if the requirement for carbohydrates was less than the norm by 52.6 and 58.2%, respectively (322.6% were satisfied). Similarly, the daily requirement with an energy value of kcal is more than the norm level (by 2079.6%) (table).

Current of women of reproductive age 18-29 nutrition and originality				
	Specification (g)	Norm	Result	Difference
1	Proteins	61	52,6	-13,7
2	Fats	67	58,2	-13,1
3	Carbohydrates	289	322,6	+11,6
4	Energy value kcal	2000	2079,6	+4

The supply of proteins from macronutrients by female students of reproductive age was 52.6 gr (lower than the norm -13.7%), and the amount of fats in the daily diet of the examiners was also lower than that of meior, with an intake of 58.2 gr (lower than the norm -13.7%). The intake of total carbohydrates by students is more than the norm level. Thus, it was noted that the daily energy needs of female students of reproductive age are also not at the norm level.

Conclusion. The low availability of macronutrients in the diet of the examiners, as noted above, naturally negatively affects their growth, development, health and assimilation of Sciences. Because the processes of metabolism of substances and energy in the body of children and adolescents of this age are much more intensive, this condition increases their demand for basic nutrients.

LIST OF BIBLIOGRAPHY

1. Методические рекомендации по вопросам изучения фактического питания и состояния здоровья населения в связи с характером питания / Зайченко А.И., Волгарев М.Н., Бондарев Г.И и др. – Москва, 1986. – 86 с.
2. Химический состав пищевых продуктов: Справочные таблицы содержания основных пищевых веществ и энергетической ценности пищевых продуктов. (под. ред. И.М. Скурихина и М. Н. Волгарёва). Москва, Кн:1, 1987, С. 3-150.
3. Физиологические нормы потребностей в пищевых веществах и энергии по половозрастным и профессиональным группам населения Республики Узбекистан для поддержания здорового питания. СанПин РУз № 0347-17 Ташкент – 2017. С-24.
4. Қурбонов Ш.Қ, Дўсчанов Б.О, Қурбонов. А.Ш, Каримов О.Р. Соғлом овқатланиш физиологияси Қарши, 2018.- 436 б.
5. Kuchkarova L.S., Qurbonov Sh.Q., Karimova L.I., Ergashev N.A. Ovqatlanish va metabolism. Toshkent “Universitet” 2022.-243 b.
6. Қурбонов Шониёз Қурбонович Тўғри таомланиш таомойиллари. Қарши “Қарши давлат университети” нашриёти 2023.-90 б.
7. Black R.E., Victora C.G., Walker S.P., Bhutta Z.A., Christian P., De Onis M., Maternal & Child Nutrition Study, G. (2013). Maternal 124