

Nutritional Significance of Macronutrients During the Reproductive Period (Pregnancy And Lactation)

Fayzullayeva Munisakhon Akmalovna
Master's student, Karshi State University

Buranova Gulnoza Boymuratovna
Associate Professor, PhD. Karshi State University

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Annotation:

The article highlights the role of macronutrients in the healthy diet of pregnant and lactating mothers and the importance of their completeness in the diet. The results were analyzed and ways to address the identified shortcomings were described.

Keywords: cell renewal, enzymes, hormones, macronutrients, micronutrients, proteins, fats, carbohydrates.

Introduction

The type, quality, and quantity of food consumed during pregnancy and lactation, along with proper timing and moderation, are key factors that significantly influence the health of both mother and child. Studies in modern biology and medicine indicate that a child's physical and cognitive development is strongly affected by the mother's dietary habits, including what she eats and drinks, the nutrient composition, and how and when she consumes food.

During these periods, the energy expended by the body is continuously replenished through the metabolism of essential macronutrients—proteins, fats, and carbohydrates—obtained from the diet.

Maintaining this nutritional balance is especially important for the health and well-being of pregnant and lactating women.

Methods

Based on the above considerations, we noticed that during our observations, a group of pregnant and lactating mothers (women aged 18-29 years) received macronutrients, such as, proteins, fats and carbohydrates. The surveys were conducted using questionnaire method.

Result

It is known that proteins in the body are primarily plastic, as well as nutrients that have energy value. Protein becomes especially important during pregnancy and lactation. Therefore, a change in protein intake from the required rate to one degree or another will lead to significant negative changes. They are actively involved in the performance of vital functions, such as cell renewal, the formation of enzymes, hormones and other biological fluids, as well as a component of hemoglobin-forming elements in the blood.

In this regard, according to generally accepted norms, the daily protein intake for pregnant and lactating mothers should be 77.2 and 80.6 grams of protein, respectively, in our results these figures are 15.1% and 20.1% lower than the norm. In particular, the amount of animal protein is 34.2 grams and 41.7 grams, respectively, which satisfies their daily normative requirement for animal protein by 36.4% and 30.5%, respectively.

For pregnant and lactating women, fats are not only a source of energy, but also an important component of nutrients that are part of all tissues and cells. They also ensure proper absorption of fat-soluble vitamins, calcium and magnesium from minerals. In addition to fat-soluble vitamins, fats also contain essential substances such as phospholipids, sterols, arachidonic and linolenic acids.

Our observations show that the total amount of fat in the diet of pregnant and lactating mothers is much lower than normal. For example, in pregnant and lactating mothers, this figure is 69.4 and 77.1 grams, respectively, instead of the normal 67 (+12) and 67 (+20) grams. This indicates a reduction of -12,1% and -19,6% in pregnant and lactating mothers compared to the daily norm.

Of the basic nutrients in daily consumption, carbohydrates are the first in terms of quantity, and they are the main substances that provide energy to the body, and also partially serve as a plastic material.

The total amount of carbohydrates in the daily diet of pregnant and lactating mothers is close to normal. In pregnant women, for example, the figure was 289 (+30) grams in the norm, and the result was 315 grams. In breastfeeding mothers, the norm was 289 (+40), and our result was 319.4 grams. In understanding the results, it should be noted that in the Republic, especially in rural areas, the main nutrients in the diet of women living in rural areas are carbohydrates, i.e bread and flour products, although the total energy value is close to normal, but proteins, in particular, animal proteins were noted to be significantly lower than appropriate levels. If such deficiencies are not remedied in time, defects in the normal course of the fetal process are inevitable. This condition can affect a child's body mass, physical and mental development.

Our results show that the ratio of the intake of essential nutrients in the daily diet of the respondents is disturbed. This, in turn, has a significant effect on plastic and energy metabolism. In particular, the energy value of their daily diet is 2191.2 and 2301.1 kcal, respectively, instead of the normal 2000 (+320) and 2000 (+500) kcal.

Conclusion

It should be noted that the timely elimination of these deficiencies in the diet of pregnant and lactating mothers is important in improving the physiological state of both mother and child. It is

important to carry out explanatory work among the general public through the media, to hold question – and – answer meeting, seminars and trainings in this area to ensure their healthy nutrition.

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