

HYGIENIC ASSESSMENT OF THE NUTRITIONAL STATUS OF POST-TERM INFANTS

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Introduction. The physical development of post-term newborns is currently considered a pressing issue in pediatrics and child health care [1,6,7]. The first months after birth represent a highly sensitive period in relation to both the quality and quantity of infant nutrition. Inadequate or insufficiently balanced diets increase the risk of delayed physical development, obesity, diabetes, and other cardiometabolic diseases. Therefore, adequate breastfeeding for six months significantly reduces the risk of obesity (RR 0.8), demonstrating the long-term impact of early nutrition on healthy development [4,8].

In addition, deficiencies in iron and docosahexaenoic acid (DHA) lead to decreased cognitive performance in infants (SMD -0.2), which confirms the close relationship between physical and cognitive development. Consequently, achieving optimal developmental outcomes in post-term newborns through balanced and fortified nutrition remains an important and relevant issue for modern pediatric practice and public health strategies [2,3,5].

Results: The study results demonstrated a significant imbalance in the population's nutrient intake across different seasons of the year when compared with physiological norms. Specifically, during the winter–spring season, protein intake amounted to 56 g, covering 79.6% of the physiological requirement, with a deficiency of 14.3 g. Fat intake was 60 g, corresponding to 91.7% of the norm, indicating a deficit of 5.4 g. In contrast, carbohydrate intake reached 274 g, exceeding the recommended level by 48.5 g and accounting for 121.5% of the physiological norm.

The protein–fat–carbohydrate (P:F:C) ratio was 1:1:4.9 compared to the recommended ratio of 1:0.9:3.2, reflecting an excessive proportion of carbohydrates and insufficient protein intake. The total energy value was 1701 kcal, which exceeded the physiological norm by 81 kcal. This indicates a dietary pattern during the cold season that is rich in carbohydrates but insufficiently supplied with high biological value proteins.

During the spring–summer season, nutrient intake levels were relatively higher: protein intake was 60 g (85.3%), fat intake was 72 g (110%), and carbohydrate intake was 250 g (110.8%). In this season, fat and carbohydrate consumption exceeded physiological norms, while protein intake remained below the recommended level. Deviation of the P:F:C ratio from standard values indicated a continued predominance of fats and carbohydrates in the diet. The energy value reached 1750 kcal, exceeding the physiological norm by 8%.

Conclusion: According to the study findings, the population's dietary intake does not fully correspond to physiological norms in any season of the year. Protein consumption is insufficient, while fats and carbohydrates are consumed in excess, resulting in an



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increased total energy value and an imbalanced nutrient ratio. Therefore, adherence to the principles of rational nutrition and ensuring optimal proportions of nutrients are essential.

REFERENCES:

1. Ахмадходжаева М. М. и др. Анализ и оценка качества питания детей в дошкольных образовательных учреждениях // Медицинские новости. – 2019. – №. 12 (303). – С. 74-76.
2. Сагдуллаева М.А., Эрматов Н.Ж., Бобомуродов Т.А. Муддатида ўтиб туғулган болалар касаллигини гигиеник таҳлили // Тиббиётда янги кун. Тошкент, 2022, № 10 (48). – Б. 251-256
3. Baymamatovich O. B. et al. HYGIENIC ASSESSMENT OF PHYSICAL DEVELOPMENT INDICATORS AND MORBIDITY IN POST-TERM INFANTS. – 2025..
4. Baymamatovich O. B. et al. HYGIENIC ASSESSMENT OF THE NUTRITIONAL STATUS OF POSTTERM CHILDREN. – 2025.
5. Ermatov N. J. et al. HYGIENIC ANALYSIS OF THE NUTRITIONAL CONDITION OF THE EMPLOYEES OF TEXTILE ENTERPRISE. – 2024.
6. Ermatov N.J., Bobomurodov T.A., Sagdullaeva M.A. Hygiene analysis of risk factors affecting the growth and development of pre-term children // Art of Medicine. International Medical Scientific Journal, 2022, T.2, № 3. – P. 270-277.
7. Ortiqov B. B. et al. Kaliy zavodi ishchilarining xavf omillarini gigiyenik tahlil qilish // Медицинский журнал молодых ученых. – 2025. – №. 15 (09). – С. 181-185.
8. Simon L. et al. Post-term growth and cognitive development at 5 years of age in preterm children: Evidence from a prospective population-based cohort // PLoS One. – 2017. – T. 12. – №. 3. – С. e0174645.

