

Modelling the balanced composition of food mixtures for gerontological nutrition of sportsmen taking into account features of bone tissue metabolism

Nikitin I.A., Nikitina M.A., Ivanov S.A., Bekmansurov R.H., Yumashev A.V., Sychanina S.N.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The development and introduction into production of functional and specialized products is one of the most important directions of the UN humanistic program of human nutrition. In this regard, in accordance with the modern provisions of nutritiology and nutrimentalomics, national programs to improve the health of the population are being developed and implemented all over the world. Nutrition has a significant impact on the development and manifestation of various kinds of diseases, including those associated with a predisposition to impaired bone metabolism. The main reason for this condition is a significant lack of minerals in the bone tissue, which causes a violation of calcium and hormonal metabolism, as a result of which bone tissue resorption occurs. The most prone to this condition are elderly people, as well as individuals with a genetic predisposition. The article shows the possibility of modelling (designing) food mixtures for gerontological nutrition using mathematical methods. This approach will expand the range of industrial food production; in the context of a shortage of protein-containing raw materials, as well as optimize the conditions for its use and involve non-traditional sources of increasing nutritional value in the consumption sphere.

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Keywords

Bakery products, Balanced composition, Gerontology, Modelling, Nutritional science

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