

# Nutrition Features of Student-Athletes

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**Annotation.** The article presents an analysis of the nutrient composition of the diet of student-athletes. 22 students of different levels of sports qualifications took part in the study.

Analysis of the survey showed a problem caused by the fact that among respondents there is an understanding of the biochemical essence of sports nutrition (in theory), but it is rarely used by student-athletes in practice.

**Key words:** diet, students, nutrition, intersession period.

**Introduction.** The problem of studying an athlete's diet is not new, but it is relevant for a number of reasons. Firstly: a balanced diet can be the basis for increasing performance.

Secondly: weight control, since for many sports the concept of weight categories is relevant.

Third, the inclusion of microelements in the diet can contribute to rapid and effective recovery after a competitive period or intense anaerobic training.

Well, it should be noted that knowledge of the WADA prohibited list is necessary. The main criteria for rational nutrition of athletes according to Putro L. are:

- (a balanced ratio of nutrients in the athlete's diet (proteins, fats, carbohydrates, vitamins, mineral components and water);
- (correspondence of the calorie content of the diet to the athlete's daily energy expenditure;
- (correspondence of the chemical composition, calorie content and volume of the daily diet to a specific sport, age, gender, volume and intensity of exercise, climatic conditions, national and individual characteristics of the body;
- (introducing easily digestible foods and dishes into the diet that do not burden the athlete's digestive system;
- (use of nutritional products of increased biological value and nutritional supplements to increase strength, stimulate protein synthesis, reduce the possibility of muscle damage during exercise and speed up the recovery period;
- (diversity of food due to a wide range of products and the use of various techniques for their culinary processing;
- (optimal distribution of the diet among meals depending on the training and competition regime;
- (balanced replacement of missing products in the athlete's daily diet with equivalent [1,5].

**The purpose of the work** is to study the nutritional characteristics of student-athletes.

**Objectives:** 1. Study of literary sources on this topic.

2. Investigate nutritional characteristics based on the analysis of a distributed survey during the intersessional training period.

**Methodology.** The survey was distributed via the googleforms cloud service.

This technology allows you to remotely, quickly and online collect data on the issues under study, as well as store and analyze the information received, evaluate its completeness, automatically generate reports and visualize them [2,6].

Also, this system can solve problems that often arise when collecting information manually: untimeliness, slowness of data provision, processing speed, features of storage and duplication of information in case of loss.

In addition, we analyzed the physical activity record card for 4 days (including the rest day) to determine energy costs by recording the level of physical activity.

Statistical processing of the study results was carried out on a personal computer using a package of standard statistical programs Excel 7.0 for the Windows environment.

The arithmetic mean (M) and the error of the arithmetic mean were calculated (m).

**Materials and methods of research.** The study involved students studying from the first to the third year at the full-time department of the Uzbek State University of Physical Education, the average age was  $19.0 \pm 0.5$  years, of different levels of sports skills.

All students were informed of the purpose of the study.

**Statistical analysis of the obtained data** was carried out using the Microsoft Office Excel program. The sampling frame was limited to students ( $n = 22$ ) studying in their third year at the Department of Sports Medicine and Biochemistry.

**Research results and discussion.** Survey analysis. 22.4% of respondents responded that their food was monotonous.

To the question “How often do you eat dry food?” 12.3% responded daily.

There is not enough fish in the diet for 65.6%, fruit for 38.3%. 289 84.7% claim that they know what sports nutrition is.

39.7% use vitamins and minerals, 39.7% do not use food additives, the rest of the students choose creatine, protein, amino acids, gainers, and energy drinks.

At the same time, 35.1% of respondents believe that sports nutrition is “chemistry”. 77.9% use protein and creatine to increase muscle mass.

56.5% believe that when performing high-intensity training loads it is necessary to use vitamins in the form of complexes, and not with food.

74% say sports supplements should be taken before and after exercise.

Analysis of the physical activity record card for 4 days (including a rest day) to determine energy costs by recording the level of physical activity revealed that in the pre-competition period energy costs amount to  $3250 \pm 154$  kcal.

Assessing the average daily food consumption using a diary, during this period a deficiency of  $350 \pm 25$  kcal was revealed on one day, with an excess of  $420 \pm 30$  kcal on the next.

That is, a discrepancy between the actual average daily diet and the level of physical activity.

Analysis of the food diary revealed an excess of carbohydrates by 12% of the recommended daily intake, and a lack of protein by 17%.

Based on the recommendations of Putro L., student-athletes were asked to balance the main protein-carbohydrate diet; adequate provision of the athlete’s body with vitamins (B1, B2, C, PP, A, E) and mineral elements.

**Conclusions.** The problem of adequate provision of student-athletes with macro and micronutrients is relevant. R guided by scientifically based recommendations on the composition of nutrition, an insufficient content of proteins and carbohydrates in the diet of student-athletes of the Uzbek State University of Physical Culture and Sports was revealed.

Analysis of the survey showed a problem caused by the fact that among respondents there is an understanding of the biochemical essence of sports nutrition (in theory), but it is rarely used by student-athletes in practice.

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