

Criteria for Selecting Elite Athletes to the National Olympic Team

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Introduction: The ability of athletes to demonstrate top performance in the main competitions of the season indicates the effectiveness of their training. For those athletes who participate in the Olympic Games for the first time, the personal record can be that sought highest expected performance outcome. For the experienced athletes, such top performance may differ, though insignificantly, from their personal best. The criteria of selecting athletes to the Olympic National team till day remains relevant and often controversial.

Methodology: The following methods were used in the research: fitness testing, analysis of training plans and statistical analysis. The research involved elite athletes in canoeing, diving, rhythmic gymnastics and shooting.

Results & Discussion: Olympic selection of the candidates is carried out in those disciplines and events in which Ukrainian athletes stand a chance to finish within the top 10 in the Olympics. The rest of the contingent is selected from amongst the athletes belonging to the disciplines and events in which basic competition in the Olympics is low. The list of candidates for inclusion in the Olympic training is formed by a group of independent experts. The training of those selected athletes is financed by the Ministry of Sport and the National Olympic Committee, whereas preparation of the remaining National athletes is carried out by respective sports federations. For the selection of athletes to the National Olympic team, the following selection criteria were introduced: execution of an individual training plan; experience of participation in the international competitions; stability and reliability of performance in the international competitions; high level of technical preparedness; physiological conditions; psychological stability; correspondence to individual or group model; health status; the doping control clearance; the scientific group recommendations.

Conclusion: Described approach allows creating favorable conditions for improving the quality of the athletes' organization and methods of training, creates prerequisites for the development of the training system for the immediate reserve of national teams.

Effects of Probiotics Supplementation and Circuit Training on Immune Responses among Sedentary Young Males

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Introduction: Growing evidence suggests that probiotics may have positive benefits on immune responses following endurance exercise. However, little attention has been given to its possible beneficial effects on immune responses following resistance exercise. Therefore we investigated the combined effects of probiotics supplementation with circuit training on immune cells counts in young males.

Methodology: In this study, 48 healthy sedentary males were recruited and randomised into four groups: sedentary placebo control (C), probiotics (P), circuit training with placebo (Ex), and circuit training with probiotics (PEX) groups. Participants in the Ex and PEX groups performed a progressive load of circuit training 3 times/week for 12 weeks. Each circuit comprised 10 exercises with work to rest ratio of 1:2. Participants consumed either multi-strain probiotics or placebo twice daily for 12 weeks. Body height and weight, blood pressure, resting heart rate and blood samples were collected at pre- and post-tests.

Results & Discussion: Total leukocytes, total lymphocytes, T lymphocytes, T-helper, T-cytotoxic, B lymphocytes, and natural killer cells counts were not significantly affected ($p > 0.05$) between the four groups. However, circuit training significantly increased ($p < 0.05$) immune cells count at post-test as compared to pre-test (in Ex and PEX groups). It was reported that resistance exercise induces leukocytosis due to an increase in circulating lymphocytes. Yet, a combination of circuit training and probiotics showed no significant ($p > 0.05$) additional effects on immune cells count. This might be due to reduction in the suppression of immune functions that resulted in faster recovery rate.

Conclusion: Despite of some significant increment on the immune cells count, this study did not provide enough support for the positive effects of probiotics on immune responses among sedentary young males following resistance exercise training. Nevertheless, circuit training enhanced immune function by increasing immune cells count.