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Power fitness and its effect on the functional state of the organism untrained youth

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Regularities and features of adaptation reactions are object of close attention in the sphere of applied realization of physical capacities of the person in the course of physical activity of various orientations. Nature of change the morphofunctional of indicators of a human body in the general plan is reflection of adaptation potential of an organism on an adequate irritant as which loading serves. The purpose of work there was a research of features of change of parameters of autonomous regulation of a warm rhythm and power opportunities of an organism of unexercised people and athletes, and also their morphometric indicators in the conditions of muscular tension. In the course of researches 40 almost healthy young men at the age of 19-20 years are surveyed. From this contingent two research groups were created the first group included the trained athletes who are systematically engaged in athleticism throughout three years, and the second consisted of unexercised young men of not having contraindications for occupations with burdening's. As model muscular activity, for 3 months of trainings with frequency of 2 occupations in a week, loading of power character in a mode of high intensity was used at the small volume of work. Autonomous regulation was estimated on indicators of the statistical analysis of variability of a rhythm of heart. For this purpose the Polar RS800CX cardio monitor was used. Parameters of autonomous regulation of a rhythm of heart and results of the spectral analysis of a warm rhythm at unexercised young men of both groups were registered. Morphometric parameters of a condition of an organism were estimated on indicators of structure of a body and its sizes using impedansometry and anthropometry methods. Power opportunities of an organism of representatives of both groups were estimated by means of a method of control testing. Control of all studied indicators was made at the beginning of the program of research and in 3 months of systematic occupations by athleticism. Statistical processing of results of research was carried out with use of a package of the statistical IBM programs * SPSS * Statistics 20. In work results of pilot studies concerning features of change of parameters of autonomous regulation of a warm rhythm and power opportunities of an organism of unexercised people and athletes, and also their morphometric indicators in the conditions of muscular tension are displayed. It is established that use, for 3 months of occupations by athleticism, power loadings of high intensity at the small volume of work, considerably strengthens influence over a low-frequency range of fluctuations of cardio intervals, with simultaneous decrease in activation of a low-frequency and high-frequency range of fluctuations of cardio intervals isn't dependent on level of a fitness of participants of studied groups. The elicited fact reflects process of considerable prevalence of activation of the central contour of regulation of a rhythm of heart, due to activation neurohumoral metabolic factors. It is revealed that despite high level of tolerance of the trained athletes to power loadings, use in the course of occupations by athleticism of non-standard level of intensity and loading volume, promoted rather essential growth of power opportunities and morphometric indicators of structure of a body. At unexercised young men, change of parameters of a morphofunctional condition of an organism during carrying out researches, were more essential in comparison with similar indicators fixed in group of athletes.
