

## COMPLEX RESEARCH OF PARAMETERS OF PREPAREDNESS OF HIGH QUALIFICATION ATHLETES ENGAGED IN WATER SPORTS

*Lupasko Victor<sup>1</sup>,  
Solonenco Grigori<sup>2</sup>,*

*State University of Physical Education and Sport, Chisinau*

**Keywords:** adaptation, physical contact, physical development, functional capabilities.

**Relevance.** The athlete's organism undergoes maximum physical and emotional loads, being at the limit of the functioning of its adaptation mechanisms. The development of a new stereotype that is unusual for a normal way of life and bringing them to perfection is carried out by athletes through multiple repetition in a given mode of intensity, and that creates the similar signals that form foci of stagnant excitation, which determine the long-term adaptation of the organism.

**The purpose of the study** is to determine the distinctive features of the long-term adaptation of the organism of athletes of high qualification in water sports.

**Methods of research** - content analysis of indicators of physical development, its capacity and physical performance, determining the long-term adaptation of the athlete's body.

### **Results of the study and their discussion.**

It is determined that the indicators of physical development and its capacity for rowers, swimmers and water polo players are determined by sports specialization. In particular, the growth of the body in oarsmen averages 184-188.2 cm with a weight of 80-84 kg. With relatively similar growth-weight indices of physical development, swimmers differ in their smallest weight (80.0 kg) and in their largest body length (188.2 cm), which ensure positive buoyancy and draft in the water. More massive water polo players (84.0 kg) and oarsmen (82.4 kg) have better conditions for the development and transfer of efforts in working activities.

It is determined that physical performance in terms of PWC170 and MPC is the highest for rowers, somewhat less for water polo players and swimmers, which causes a corresponding physiological increase in heart volume, systolic blood volume and significant dynamics of body reserves of athletes in extreme conditions of competitive activity.

**Conclusions.** The process of long-term adaptation of the athlete's organism to the loads in the chosen sport consists in the ability to mobilize and use existing functional mechanisms that work more fully, more intensively and more economically. This perfection takes place in a specialized way: those processes and reactions are formed, the specific volume of which is significant in competitive activity due to the formation in the central nervous system of a functional movement control system that provides additional opportunities for implementing hidden reserves of the athlete's body.