
Development of Endurance in Cyclic Sports

Bekmirzaev Shavkat Olim ougli

Master student of the Pedagogical Institute of Termez State University

Abstract: The article deals with the development of endurance in cyclic sports. Research data are presented and practical advice is given on the development of endurance in cyclic sports. The sequence of loads on the body of athletes is considered.

Keywords: general and special endurance, aerobic and anaerobic endurance, endogenous and exogenous factors, cyclic sports.

Introduction. Endurance training is the main component of middle and long distance running. Training is aimed at developing the runner's two main abilities: aerobic, including general endurance; special endurance for a given discipline, more often mixed aerobic-anaerobic abilities [1, 2].

Types of special endurance are divided in accordance with the requirements of the competition by the duration and intensity of running along the distance into:

- speed endurance;
- speed-strength endurance;
- stayer endurance [3, 4].

The purpose of the study was to substantiate the methodology for developing endurance in cyclic sports.

Materials and methods of research: theoretical - analysis of data from literary sources in the context of the studied difficulty; systematization of scientific literature data; empirical - observations, conversations [5, 6, 7].

Research results. Endurance depends on endogenous (mainly congenital) and exogenous (obtained as a result of training) factors. Both factors are interconnected, however, for the final result, exogenous factors are leading.

Among the endogenous, one should distinguish between anatomical, morphological, physiological (functional) and psychological prerequisites; in exogenous factors - the components of physical technical, tactical, moral and volitional training. All these factors are interrelated [8, 9, and 10].

Physical training aimed at developing endurance is based on anatomical and morphological prerequisites and develops them. Of the anatomical and morphological prerequisites, first of all, the physical structure and composition of muscle fibers matter. As a result of the development of physiological prerequisites, changes in the basic physical functions occur. In the cardiovascular system, the volume of the heart, the lumen of the aorta and veins, the number of capillary vessels in the muscle tissue increase. The resting heart rate is set at 40 beats per minute and below, and at maximum work, on the contrary, it increases. As a result of an increase in the heart muscle, the filling of the pulse improves. Therefore, the

performance of the heart eventually increases. Blood pressure is equal, as is the respiratory rate decreases. This triad - an increase in heart muscle and respiratory rate - is the classic endurance formula [11, 12, 13].

With the growth of training in the blood, the number of red blood cells increases, which increases the ability of the blood to bind free oxygen. Increases the supply of glycogen in the muscles and liver and muscle fat. And the amount of subcutaneous fat, on the contrary, becomes very low: in men - world champions - it is less than 6% of total body weight, in women - less than 15%.

The metabolism (metabolism) becomes very economical in the mode of aerobic work; oxygen is more rationally used in muscle tissues and cells (up to mitochondria). In connection with the improvement of this "internal" breathing, "external" breathing also improves [14, 15].

The metabolism (metabolism) becomes very economical in the mode of aerobic work; oxygen is more rationally used in muscle tissues and cells (up to mitochondria). In connection with the improvement of this "internal" breathing, "external" breathing also improves.

The vital capacity of the lungs, the maximum pulmonary ventilation and the total minute volume of respiration increase. A characteristic picture is an increase in maximum oxygen consumption in terms of milliliters per 1 kg of body weight per minute: for men - up to 84.4 ml / kg and for women - up to 71.1 ml / kg. The result of work aimed at developing endurance is always manifested by fatigue, soreness and very poor general well-being. In order to continue motor activity, despite growing fatigue (up to exhaustion) and unpleasant sensations (up to suffering), high willpower is needed. The expression "the art of patience" is often used in relation to runners for long and extra long distances. A high-class athlete must develop this art for himself; cultivate independence of mind [16, 17].

The main means of developing and improving endurance are physical exercises performed for a long time, most often of moderate intensity. These exercises can be both close and far from the athlete's specialization, and therefore the means of endurance training are divided into general and special.

Since the main movement and the primary means of developing endurance in athletics is running, it is possible to distinguish between running and non-running means of training. Running is used primarily for the development of both general and special endurance.

Of the non-running means, tourism, mountaineering, skiing and mountain skiing, cycling, rowing, skating, roller skating and skiing, swimming, outdoor games - football, handball, hockey, basketball are most often used.

Endurance is also developed through circuit training. In endurance training, you must carefully adhere to the following principles:

- 1) sequences: from small loads to maximum;
- 2) compliance (individual approach): the load must be appropriate to the capabilities and fitness of the athlete, i.e. above the "threshold", but below the "ceiling";
- 3) Cyclist (wave-like): training loads should alternate with rest (full and relative), a higher load - with a lower one. The body should be given the opportunity to more than restore exhausted energy (super compensation);
- 4) Systematic (regularity and repeatability): the load must be repeated regularly in order to achieve a certain adaptation (adaptation) of the body.

Conclusions. Endurance is closely related to other fitness qualities. In the field of physical fitness, it depends on the stock of strength, speed and mobility; in the field of technical readiness - from the automation of motor activity, which is an inevitable condition for economic, rational movements; in moral readiness - from the level of will; in tactical readiness - from the distribution of forces and the choice of the optimal pace of movement (the so-called sense of time).

Literature

1. Даминов И.А. Спортивная деятельность - как фактор влияния на личность дзюдоистов / И.А. Даминов // *Academic research in educational sciences*. Volume 2, Issue 4, 2021. –pp. 1322 -1329.
2. Даминов, И. (2021). Совершенствование технико-тактической и психологической подготовки юных дзюдоистов. *Общество и инновации*, 2(11/S), 175–180.
3. Mirzaev, A. M., & Daminov, I. A. (2021). Improving The Physical Fitness Of Students Through The Conduct Of Individual Programs. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(11), 7054-7055.
4. Alikulovich, M. K. . (2022). Methodology for Carrying out Swimming Training Lessons for Children 9-10 Years Old. *International Journal of Discoveries and Innovations in Applied Sciences*, 2(2), 36–38.
5. Abdullaev, Y. (2021). Forms and methods of developing the use of folk movement games in high school students. *Mental Enlightenment Scientific-Methodological Journal*, 2021(2), 73-79.
6. Абдуллаев Я. М., Турдимуродов Д. Ё. Создание педагогических условий в формировании волевых качеств у учеников начальных классов / Я. М. Абдуллаев, Д. Ё. Турдимуродов // *Colloquium – journal*. – 2020. № 24 (76). С. 12 -14.
7. Tuychiyevich, X. I. (2022). Development Stages and Characteristics of the History of Physical Education. *Central asian journal of social sciences and history*, 3(2), 5-8.
8. Salimov, U. (2019). Pedagogical ideas of the founder of scientific pedagogy Yan Amos Komensky. *Scientific Bulletin of Namangan State University*, 1(2), 368-372.
9. Салимов, У. Ш. (2019). Особенности организации разных видов занятий по физической культуре для старшего дошкольного возраста. *Вопросы педагогики*, (4-1), 130-133.
10. Бекмирзаев, Ш. О. ё. (2022). Физическое развитие студентов средствами атлетизма. *Science and Education*, 3(2), 1078-1082.
11. Менгликулов Х. А. (2020) Особенности физической подготовки специалистов физической культуры в высшем учебном заведении. *Педагогика ва психологияда инновациялар*, 11.
12. Menglikulov, Khairulla (2021) "Features of organization of general physical preparation in lesson and extracurricular activities," *Mental Enlightenment Scientific-Methodological Journal*: Vol. 2021: Iss. 2 , Article 6.
13. Turdimurodov D.Y. Pedagogical factors of external stimulation affecting the volitional efforts of schoolchildren during physical exercises of a different nature / D.Y. Turdimurodov // *Innovations in pedagogy and psychology*. - 2020. - №. 9. Issue 3. - P. 21-25.
14. Turdimurodov Dilmurod Yuldashevich. (2022). Education and development of volive

qualities in schoolchildren by means of physical education. *Academicia Globe: Inderscience Research*, 3(01), 59–62.

15. Турдимуродов, Д. Й. (2021). Спорт ўйинлари билан шуғулланиш жараёнида ўқувчиларда иродавий сифатларнинг шаклланиш хусусиятлари. *Актуальные научные исследования в современном мире*, 3(9 (77)), 140-144.
16. Турдимуродов Д. Ю. (2020). Готовность подростков к волевым напряжениям и педагогические условия ее формирования в процессе физического воспитания в общеобразовательной школе. *Science, Research, Development*, 2, 309-311.
17. Ёулдашевич, Т. Д. (2022). Воспитание и развитие волевых качеств у школьников средствами физического воспитания. *Ижтимоий фанларда инновация онлайн илмий журнали*, 2(1), 204–207.