# CHANGE INDICATORS OF PHYSICAL PERFORMANCE YOUNG SWIMMERS UNDER INFLUENCE WIDE RANGEDIFFERENT TRAININGS MEANS

**Sh. A. Pirnazarov, Sh. X. Shamsiddinov**
Uzbekistan State University of Physical Culture and Sports

## ABSTRACT

In our work, we tried to reflect the results of study adequacy use wide range training means different nature to the capabilities body young athletes. An important link in an effective training process is considered to be the rationality and interconnection of its individual parts. Changing the structure of building thetraining process allows you to increase and supplement the level of preparedness of young swimmers, to rationalize and increase the effectiveness of the training process. The analysis of the dynamics of the indicators of the maximum oxygen consumption of the first group of young swimmers revealed the growth of indicators. We found similar trends when analyzing the PWC170 indicators. The indices of physical working capacity undergo specific changes under the influence of a wide range training means of various nature (non-traditional) used in the annual training cycle. This allows you to adjust the focus and intensity of the load without harming health trainees.

**Keywords:** physical performance, swimming, young swimmer, training means, period, dynamics.

## INTRODUCTION

To date, swimming, and sports swimming in particular, is almost one of the most popular sports, which millions of people around the world prefer. In recent years, in modern sports swimming, there has been a progressive dynamics of the increase in results, not only world-class competitions do not do without the next established records. This phenomenon forces specialists working in this field of sports swimming to improve the methodology of training young swimmers taking into account a wide range of training means of various nature (ergogenic) in combination with generally accepted means and methods of training and to look for new approaches to their implementation in the practice of the training process. Definitely, in order to achieve high results, the base should be laid even in children's and youth sports, where the reserves of the body at different stages of physiological development are limitless and,

in general, are a kind of basic platform for the formation and development of a poor athlete. Naturally, coaches who understand this are constantly in search of new, effective exercises both for working on swimming techniques and for working in the gym, where the choice of methods and ways of applying them in practice remains relevant for each coach.

The purpose of the study. Identification of the adequacy of the use of a wide range of training tools of various types to the capabilities of the body of young athletes.

Research objectives. 1. Analysis of literary sources of a scientific and methodological nature on the problems and peculiarities of physical performance of young swimmers. 2. To determine the level of influence of the adequacy of the use of training tools of various types to the capabilities of the body of young athletes.

Methods and organization of research. In order to organize the study, we collected and processed data on the IPC value and PWC170 test indicators. The analysis of the data obtained by the results of the study was carried out by classical methods.

The pedagogical experiment was conducted in the pool of the Volga State Medical University "Volgomed" from September 2021 to June 2022, in which 24 swimmers of training groups aged 11-13 years took part.

At the first stage (August - September), we analyzed literature sources of a scientific and methodological nature on the problems and peculiarities of using a wide range of non-traditional ergogenic training tools in combination with classical means and methods of training on land and in water. Summing up the experience of literary sources, we have identified the advantages and disadvantages of the forms of organization of classes, teaching methods and the means used in the preparation of swimmers. Taking into account the analysis of the data obtained, exercise complexes were developed and various training options were identified for the use of a wide range of non-traditional ergogenic training tools in combination with classical training tools and methods for their further use in various periods of sports training.

At the second stage (November - May), in order to improve sports results and to increase the level of physical performance of young swimmers, a transformed training method was introduced into the training process.

At the third stage (June - July), the data obtained during the experiment were processed by statistical methods and analytically interpreted.

In the course of the study, such research methods as the analysis of scientific literature, pedagogical and medicobiological methods and methods of statistical data processing were used.

Results and discussion. Only if there is a rational level of functioning of the body's systems, it is possible to achieve an optimal level of physical and technical fitness, and as a result, the most real sporting success. The ability to assess the level of functional status, correction of health status in case of deviation from the norm, search for features that limit physical performance, identification of the body's reserve capabilities and determination of the minimum links of adaptation to physical exertion is possible only with a thorough examination of physical performance.

According to the PWC170 test, the overall physical performance of young athletes was assessed at the beginning and at the end of the preparatory and competitive periods. Thus, in the athletes of the first (with the use of ergogenic means) group, the increase in absolute PWC170 indicators was 7.8% ($p<0.05$), and in the second (without the use of ergogenic means) group 5.5% ($p>0.05$). As for the increase in relative PWC170 indicators, in the first group it was equal to 5.7% ($p<0.05$), but in the athletes of the second group 4.7% ($p>0.05$). The data obtained indicate the real impact of the use of a wide range of non-traditional ergogenic training means on the indicators of physical performance of the examined contingent of swimmers. As a result, this confirms the facts about a significant increase in PWC170 indicators in the first group during the entire preparatory period.

It’s no secret that one of the most powerful factors that affects the state of the athletes' body is the volume and intensity of training work. The nature of the training work performed affects the body of young swimmers, whose reaction can be traced in the dynamics of physical performance indicators at various stages and periods of training. In this regard, we conducted studies of the dynamics of PWC170 indicators in one of the main periods (competitive) of preparation.

Thus, the studied PWC170 indicator in the second group of athletes significantly decreases by 6.9% ($p<0.05$) by the end of the competition period in relation to its beginning. When calculating the results of the relative value of PWC170, similar changes were detected, the deterioration was 8.1% ($p<0.05$). The data obtained during the PWC170 dynamics study indicate that the intensive training load performed by swimmers is accompanied by changes in indicators characterizing the state of all major body systems that ensure adaptation to the nature of the training work performed. At this stage of preparation, the training process imposes strict requirements for performing high-intensity work. As a consequence, this leads to chronic under-repair of the main body systems and insufficient adaptation to the nature of the training work performed. Based on the above, it can be concluded that the modes of training work used at this stage of training are unbearable for athletes of this age group and cannot

be implemented at the expense of internal reserves of the body systems, which affects the deterioration of physical performance of athletes.

To identify these features, we studied the dynamics of IPC indicators in young swimmers in the annual cycle of training in general and at its various stages and periods, in particular. The study of IPC indicators in young swimmers in the preparatory period showed that the obtained IPC values have positive dynamics. So the desired characteristic increased by 9.4% ($p<0.05$) in the first group and by 4.4% ($p>0.05$) in the second group, this can be regarded as an organism's reaction to the work done. In the competitive period, there is a slightly different pattern in the studied IPC indicators. In the second group of young athletes, they significantly decreased by 8.5% ($p<0.05$), while in the first group they remained at the same level. The same trend is observed when analyzing the relative values of MPC, the second group had a significant decrease of 10.7% ($p<0.05$), and in the first group the analyzed characteristics remained at the same level of 2.6% ($p>0.05$). Analysis of the dynamics of the IPC indicators of the first group of young swimmers revealed an increase in indicators by 9.2% ($p>0.05$), so at the beginning of the preparatory period they were 2.15 l /min, and by the end of the competition period 2.31 l/min. The second group of swimmers showed a tendency to decrease this characteristic from 2.12 to 2.02 l/min by the end of the competition period compared with the beginning of the preparatory period. When analyzing the $PWC_{170}$ indicators, we identified similar trends in changing the desired results, which can be taken as a pattern. Thus, the rational construction of the training process for young swimmers should be carried out based on the symbiosis of the use of a wide range of training tools of various types (non-traditional) and classical means and methods of training, but taking into account the physical condition. This allows you to adjust the direction and intensity of the load without damaging the health of those involved. Physical performance indicators are subject to specific changes under the influence of a wide range of training tools of various types (non-traditional) used in the annual training cycle.

## REFERENCES

1. Ўзбекистон Республикаси Президентининг 2017 йил 9 мартдаги “Ўзбекистон спортчиларини 2020 йилда Токио шаҳрида (Япония) бўлиб ўтадиган XXXII ёзги Олимпия ва XVI Паралимпия ўйинларига тайёрлаш тўғрисида”ги ПҚ-2821 сонли Қарори.

2. Ўзбекистон Республикаси Президентининг 2017 йил 3 июндаги “Жисмоний тарбия ва оммавий спортни янада

ривожлантириш чора-тадбирлари тўғрисида”ги ПҚ-3031-сонли Қарори.
3. Булгакова Н.Ж., Чеботарева И.В. Особенности телосложения юного пловца как критерий специализации внутри вида // ПЛАВАНИЕ. Исследования, тренировка, гидрореабилитация. – Санкт-Петербург: Издательство ООИ «Плавин», 2003. – С.167-170.
4. Гончарова О.В. Болалар жисмоний сифатларини тарбиялаш. Ўқув қўлланма. Тошкент: ITA Press, 2015. 204 б.
5. Давыдов В.Ю., Авдиенко В.Б. Отбор и ориентация пловцов по показателям телосложения в системе многолетней подготовки (Теоретические и практические аспекты) Монография - Волгоград: ВГАФК, 2012 - 344
6. Иссурин В.Б. Спортивный талант: прогноз и реализация: Монография / В.Б. Иссурин; пер. с англ. И.В. Шаробайко. - М.: Спорт, 2017. - 240 с.
7. Казимирская А.Е. Формирование двигательных действий пловцов на учебно-тренировочном этапе подготовки: Автореф. дис. канд. пед. наук. СПб., 2000. - 21с.
8. Pirnazarov Sh. A. Boshlang’ich tayyorlov guruhlarida bolalarni suzishga o’rgatishda tajriba tekshirish. CENTRAL ASIAN RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES, (VOLUME 2 ISSUE 3 MARCH 2022) 498-509.
9. Шамсиддинов Ш.Х. Ёш сузувчиларни кўкракда крол усули орқали куч сифатларини ривожлантириш. CENTRAL ASIAN RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES, (VOLUME 2 ISSUE 3 MARCH 2022) 510-520.
10. Pirnazarov Sh.A. Suzish nazariyasi va uslubiyati. O’quv qo’llanma. 2021 yil. 50-55