Kh.Yu. MATNAZAROV, B.A. ISHIMOV

INTRODUCTION TO THE SWIMMING SPECIALTY

MINISTRY OF SPORTS OF THE REPUBLIC OF UZBEKISTAN

UZBEKISTAN STATE UNIVERSITY OF PHYSICAL EDUCATION AND SPORT

DEPARTMENT OF THEORY AND METHODOLOGY OF WATER SPORTS AND TYPES OF ROWING

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Ushbu darslik oliy o'quv yurtlari bakalavr va magistrlari, bolalar va o'smirlar sport maktablari, olimpiya zahiralari sport kollejlarining talabalari hamda suzish sport turi bo'yicha o'qituvchi va murabbiylarga mo'ljallangan. O'ylaymanki, bu tayyorlangan darslik ana shu muammolarni qisman bo'lsada hal etish borasida muayyan ahamiyat kasb etadi.

Учебник предназначен для бакалавров и мастеров высших учебных заведений, детско-юношеских спортивных школ, воспитанников спортивных колледжей олимпийского резерва, а также преподавателей и тренеров по плаванию. Я думаю, что подготовленный учебник будет иметь определенное значение в решении этих проблем хотя бы частично.

This textbook is designed for undergraduate and graduate students of higher educational institutions, as well as students of children's and youth sports schools, Olympic reserve sports colleges, along with instructors and coaches specializing in swimming. We believe that this prepared textbook will carry significant importance in addressing these challenges, at least partially.

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INTRODUCTION

Nowadays, issues related to the physical education of individuals have become increasingly prominent in the socio-economic development of society. The pressing tasks within the physical education system of the younger generation include shaping a healthy lifestyle, increasing physical activity, strengthening health, and developing motor skills—all of which require the development and practical application of effective methods and tools. The future progress of any nation in the world is measured first and foremost by the physical and spiritual maturity of its people, particularly its youth. Today, the competition between nations and the demonstration of strength and capability largely depend on the critical role played by the field of physical education.

The development of swimming sports is one of the most pressing issues today. The construction of world-class aquatic facilities and the establishment of swimming schools in our republic demonstrate the great future of swimming in our country. The achievements of our national youth swimming teams continue to secure worthy positions on the global stage. To further improve these results, it is imperative to enhance the effectiveness of scientific research in this field.

Analysis of scientific research has shown that scholars have provided numerous definitions of physical qualities. Most authors have focused on explaining physiological mechanisms—such as muscle structure, biochemical processes, the ratio of red and white muscle fibers, muscle coordination, and other aspects—when describing physical attributes.

The promotion of physical education and sports has been identified as one of the key directions of social policy in our country. This is because sports strengthen public health, foster a healthy and well-rounded younger generation, and establish a healthy lifestyle in society. It helps prevent various diseases and harmful habits among youth. Sports also play a crucial role in cultivating high culture and patriotic sentiments. Achievements in this field enhance the country's global reputation and instill pride in all our compatriots.

During the years of independence, extensive work has been carried out in this area. Necessary conditions have been created to ensure regular engagement in physical education and mass sports, particularly among the younger generation. Modern sports complexes have been built in cities and villages. Competitions such as *"Umid Nihollari" (Seeds of Hope)*, *"Barkamol Avlod" (Well-Rounded Generation)*, and the Universiade have become effective tools for introducing youth to mass sports and a healthy lifestyle. A continuous system has been established to identify talented children and train professional athletes. Boys and girls who demonstrate exceptional abilities during training sessions in general education schools and children's sports complexes are enrolled in youth sports schools and sports colleges, where they receive training based on professional methodologies. Their skills are further honed in higher education institutions and training camps.

The crucial point is that the leadership of our country has emphasized that the development of physical education and sports is not merely about children and youth, but an integral part of forming a unique and effective system capable of engaging the entire nation in mass sports movements and raising a healthy, well-rounded generation. The President proposed organizing coordinated and joint measures in this field, demonstrating a visionary approach to national development.

Today, the establishment of an effective national system in physical education and sports—one that encompasses all segments of our population—has already yielded significant results. This success is recognized not only by domestic experts but also by international specialists, proving that the work in this field has been meticulously planned and implemented with long-term foresight.

These noble efforts continue with consistency and determination, serving as a solid foundation for promoting a healthy lifestyle among our people, especially the youth. They ensure the emergence of physically and intellectually capable individuals, embodying the vision of our leader: *"Only a healthy nation and a sound generation can build a great state."* In other words, raising a healthy generation is regarded as a vital

condition for forming a strong nation, a free and prosperous homeland, and establishing a rule-of-law civil society in our country.

The outstanding achievements of our youth in sports are the fruits of ongoing reforms and favorable conditions created in our nation. The fact that our youth are growing up healthy and strong—and are worthily representing Uzbekistan on the global stage—reflects the growing prestige of our country. These rising sports stars reinforce our confidence in the bright future of our nation.

A rationally designed movement regimen and health-improving physical exercises play an important role in strengthening participants' health. Swimming is a type of sport where athletes actively engage nearly all muscles of their body. Low muscle activity is not only harmful to health but also delays the harmonious development of the organism. With proper selection of swimming techniques, people of all ages can engage in this sport.

Analysis of literature shows that in sports theory and specialized articles, authors have provided multiple definitions of physical qualities. These authors have primarily explained physical qualities through physiological mechanisms - namely muscle structure, biochemical processes, the relationship between red and white muscles, muscle coordination, and other factors.

As a historical discipline, swimming studies the general patterns of swimming development: the formation of swimmers' training systems, specific aspects of competitive swimming at different historical stages and in various countries, developmental characteristics of swimmer training systems, and determining factors (material, social, spiritual) of its intensity, among others.

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SECTION I. INTRODUCTION TO THE SCIENCE

CHAPTER I. Purpose, Objectives, and Subject Matter of the science

1.1. Introduction to specialization in the chosen sport

The purpose of teaching the subject - to equip students studying in the bachelor's degree program in swimming specialization—future teacher-coaches—with the professional-pedagogical knowledge, practical skills, and qualifications outlined in the curriculum.

The object of the subject – the main purpose of teaching "Introduction to the swimming specialty" at the Uzbekistan State University of Physical Education and Sport is to provide qualified personnel capable of working independently in all areas of physical education and sports, to train highly skilled teacher-coaches in rowing, and to equip students with essential knowledge, skills, and competencies. The subject "Introduction to the swimming specialty" includes: mastering theoretical knowledge on all lecture topics outlined in the curriculum, as well as professional-pedagogical skills and qualifications developed through seminars, practical training, and internships; understanding historical and evolutionary materials related to the field, the essence and content of physical, technical-tactical, and psychological preparation processes, as well as the technology, methods, tools, and principles of implementing these processes; in-depth study of swimming techniques and tactics, teaching methods, selection and scouting processes, and training methodologies for swimmers of different ages and skill levels; acquiring knowledge and skills related to competition rules, refereeing, organizing and conducting competitions, scientifically evaluating competition effectiveness, and managing teams based on results; understanding the nature and content of different types of training, their development, and the ability to assess their progress using scientific-pedagogical methods and test exercises; developing the multifaceted professional-pedagogical functions of a teacher-coach, including leadership, organizational skills, educational abilities, creativity, planning, communication, diagnostics, and scouting-prognostic work. Requirements for Students' Knowledge, Skills, and Competencies in the

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The Interrelation and Methodological Unity of the subject with Other Subjects in the Curriculum: the "Introduction to the swimming specialty" is part of the specialized subjects block and is taught in the 1st and 2nd semesters. This discipline falls under the category of service-oriented subjects and is closely linked with history of physical education; theory and methodology of physical education; general physiology and sports physiology; general pedagogy and sports pedagogy; general biochemistry and sports biochemistry; general psychology and sports psychology; sports metrology; individual combat sports; coordination-based and cyclic sports (athletics); national and sports games; biomechanics; gymnastics.

Teaching methodology of the subject -the course employs modern information and pedagogical technologies. Instruction is conducted in classrooms, sports halls, open sports grounds, and swimming pools. The learning process incorporates contemporary pedagogical technologies, interactive methods, oral and test-based assessments, as well as final written assignments. Some lectures are conducted using computer slides in

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PowerPoint. The following factors determine the quality of the educational process as delivering lessons at a high scientific-pedagogical level; conducting problem-based lectures; organizing engaging question-and-answer style sessions; utilizing advanced pedagogical technologies and multimedia tools; presenting stimulating and thought-provoking problems to students; maintaining high academic standards; working individually with students; encouraging open discussion and involving students in scientific research.

The subject of the teaching swimming. The course covers: the historical development of competitive swimming; technical foundations of swimming; swimming teaching methodology; knowledge of tools, principles and methods for teaching basic movements. Students must be able to select appropriate methods and tools for teaching competitive swimming techniques and movement skills, and possess the ability to standardize these techniques. They should acquire professional pedagogical qualifications for organizing and conducting swimming training sessions, as well as preparing lesson plans.

The course "Introduction to the swimming specialty" focuses on the organization of training processes across various swimming disciplines. Competitive preparation in swimming is considered a multifaceted process encompassing athlete training, competition preparation and participation, as well as scientific-methodological support for the training regimen. The primary objective of this specialization course is to equip students with the essential knowledge, qualifications, and skills required for pedagogical activities in swimming. The English played a pioneering role in developing swimming as a competitive sport. By the mid-19th century (1840s), regular swimming competitions were established in London's six artificial pools under the organization of the National Swimming Society. As the sport gained popularity, numerous swimming facilities were constructed. The formation of a new governing body - the Amateur Swimming Association (ASA) in 1880 - marked a significant milestone, with membership quickly expanding to over 300 affiliated clubs.

Only four swimming events were organized, three of which were in the freestyle category that has since gained immense popularity at the first

modern Olympic Games in 1896. The 1900 Paris Olympics introduced some highly unusual swimming events: one was an obstacle course, another tested underwater swimming, and the third was a 4000-meter race - still the longest distance ever contested in Olympic swimming history. These three events were never repeated in subsequent Games. The first Olympic swimming competition took place in open water off the coast of Greece, featuring just three Greek swimmers competing in a 100-meter freestyle race that began with competitors jumping from their boats. Victory went to Ioannis Malokinis, who finished in 2 minutes and 20 seconds. The backstroke was introduced in Paris (1900), while breaststroke gained official Olympic status starting at the 1908 London Games. Nearly half a century later, the butterfly stroke was added as the fourth competitive style at the 1956 Melbourne Olympics, preceding the introduction of other swimming techniques.

The early indicators of the modern era began emerging in 1904 in St. Louis, as until that time swimming had been exclusively a male-dominated sport. For various reasons, women were excluded from Olympic swimming competitions in the early years of the modern Games, only making their debut at the 1912 Stockholm Olympics. In both 1896 and 1900, women were barred from participation due to the conservative views of Baron Pierre de Coubertin, the founder of the modern Olympics, who believed women were too fragile for competitive sports. Swimming rapidly became one of the most captivating Olympic sports, and today securing tickets for Olympic swimming sessions has become considerably challenging. The sport opened new opportunities for athletes like Duke Kahanamoku (USA), the freestyle champion of 1912 and 1920. Johnny Weissmuller, the first swimmer to break the one-minute barrier in the 100m freestyle, remains perhaps the most famous pre-World War II swimmer. His athletic achievements so captivated Hollywood producers that he went on to portray Tarzan in the original film series. Another pool champion who became a Hollywood star was Buster Crabbe, the 1932 Olympic champion (later famous as Flash Gordon). Crabbe launched his Hollywood career after winning the 400m freestyle title - what he called "the ten seconds that changed my life".

Mark Spitz's historic seven gold medals cemented his status as a global sporting legend at the 1972 Munich Olympics. This legacy of swimming

Problem-Based Learning. An approach to activate learners by presenting educational content through problem-solving scenarios. This method develops independent creative thinking by enabling learners to identify objective contradictions in scientific knowledge; master resolution techniques and apply solutions creatively in practical contexts

Modern Information Presentation Tools. Implementation of new computer and information technologies in the educational process.

Teaching Methods and Techniques: lectures (introductory, topic-focused, visual); problem-based learning; practical workshops

Instructional Organization Formats: Dialogic and collaborative learning through: direct communication; peer-to-peer learning; group/collective work

Teaching Tools. Combination of traditional materials (textbooks, lecture notes); computer and information technologies

Communication Methods. Real-time interactive engagement with learners through direct feedback mechanisms.

Assessment Tools. Diagnostic teaching through observation, quick quizzes, analysis of interim/final control results

Management Tools. Lesson planning via technological maps outlining instructional stages are as follows:

- Collaborative teacher-learner goal achievement
- Monitoring of both classroom and independent work

Monitoring and Evaluation: Systematic tracking of learning outcomes both during individual sessions and throughout the entire course. Final assessment is conducted through either test assignments or written examinations to evaluate learners' knowledge.

In the teaching process of "Introduction to the swimming specialty" computer technologies and Microsoft Excel spreadsheet software are utilized. Official economic indicators from Internet sources are employed, handouts are prepared, and interim/final assessments are conducted through a testing system based on key terms and concepts.

1.2. The appearance of swimming

Swimming emerged at the dawn of human civilization and developed due to its practical and military-practical value. Rivers and lakes, located in areas inhabited by primitive people, served as sources of sustenance and as convenient routes for communication and exchange between tribes. Findings by archaeologists, historians, ancient papyri, stone carvings, and other sources show that long before the modern era, people already knew how to swim and dive. People have always valued swimming. In one of the earliest books on swimming (1808), T. Melchisedek noted: "All people around the world respect the skills of a swimmer — not just as a mere ability, but as an art inherent to human nature. They made earnest efforts to teach it to their children from early childhood." Regular instruction in swimming is also evidenced by an ancient Egyptian papyrus, which describes how noble Egyptians proudly learned to swim alongside the children of pharaohs. In support of their learning, dried gourds were used in Ancient Egypt to teach swimming. A papyrus dated to 3400 BCE illustrates the movements of a swimmer using the breaststroke technique.

Figure 1: The First Ancient Competition

In ancient countries, Eastern drawings, writings, stone carvings, sculptures, and other material cultural monuments widely serve as sources

of information about swimming competitions (Figure 1). Ancient Egypt, located in the Nile Valley, had a rich network of canals and reservoirs and was engaged in trade with other countries. One of the tombs in Ancient Egypt, decorated with frescoes, depicts a competition among swimmers. Swimming was used not only for economic activities but also for military purposes. An inscription on the walls of the Temple of Ramses II, dated back to around 1250 BCE, states that the Egyptian army pushed the Asiatic Hittites into the Orontes River during a battle under the fortress of Kadesh. In the depiction, one of the warriors is shown swimming with a technique resembling the front crawl, making alternating strokes with both arms (Figure 2). Women also possessed swimming skills. Many museums around the world feature ancient Egyptian toiletry boxes and spoons made as offerings, shaped like girls swimming with outstretched arms holding lotus flower-shaped bowls.

Figure 2: Use of Water for Self-Defense

Ancient Greece was another highly developed civilization. Representatives of this warrior nation left several bas-reliefs carved in stone that depict the use of swimming in both peaceful and military settings. The highest level of development was reached in Ancient Greece, where part of

the population lived along the warm and coastal areas of the Aegean Sea. The geographical location of such a country contributed to the development of navigation and created wide opportunities for using it in economic and military activities. Among the physical exercises and practical skills, swimming held one of the highest places in Ancient Greece. It was considered one of the most common hygiene practices and referred to as "preparation for dinner." The Greek statesman Solon ordered that in addition to reading and writing, special attention should be given to teaching young people how to swim. The development of swimming is also reflected in Greek heroic epics, myths, and legends. For instance, in Homer's Odyssey, when waves smashed his ship, Odysseus mounted one of the logs, and "thus we were carried across the roaring sea for two days and two nights, and death seemed inevitable more than once... But when the sea calmed and he saw the shore, he swam quickly, hurried to step onto solid ground, and safely emerged from the water." Ancient Greece also passed down the legend of Leander, who swam across the Hellespont every day to reach his beloved Hero and died one stormy night during a tempestuous crossing (Figure 3).

Figure 3: Bas-relief Depicting an Ancient Greek Swimmer

The Greek historian Herodotus described a swimming competition held during the Isthmian Games, which were dedicated to Poseidon. Herodotus also tells the story of an ancient Sicilian swimmer who performed a heroic act together with his daughter, Siana. In 480 BCE, during the war between the Greeks and the Persians, Sicilian Silyas and his daughter swam to enemy ships at night and cut their anchor ropes. The weather was stormy, and many Persian ships were dashed against coastal reefs. Silyas and his daughter swam 15 kilometers. In honor of this, the Greeks erected a statue of Silyas at Delphi and commemorated his character through poetry and paintings.

Swimming pools were built in ancient Greek gymnasiums, which served the education and upbringing of youth (Figure 4).

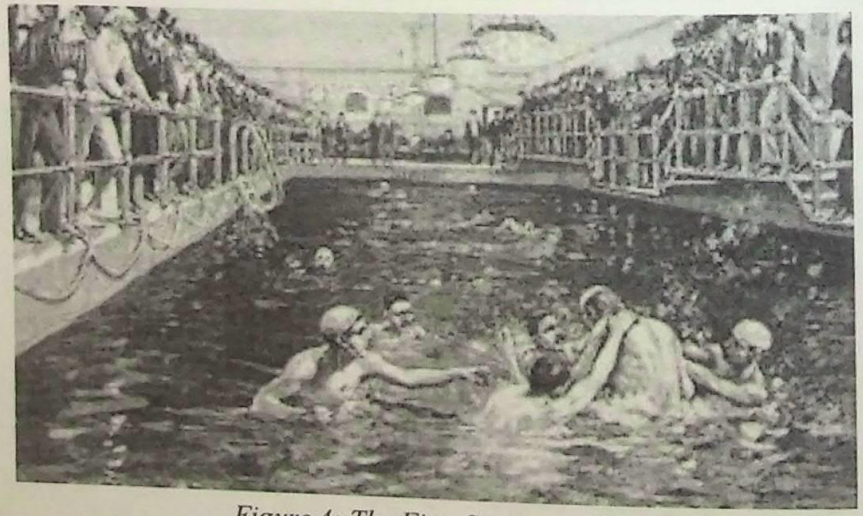

Figure 4: The First Swimming Pools

In Ancient Greece, as seen in the preserved image of the women's bath in Vazada, girls also practiced swimming.

In Ancient Rome, swimming was used as a means of physical conditioning and as a military and practical skill. Military training for Roman adults, ranging from 17 to 47 years old, included swimming both naked and fully armored. Every soldier was required to perfect the swimming skills necessary for the specific information they needed to

retain. Additionally, it is known that the famous Roman general Julius Caesar (mid-1st century BCE) was proficient in swimming while wearing armor, and he encouraged this skill among soldiers, incorporating it into their training and military activities. He organized grand "Naumachia" training battles, where soldiers had to demonstrate their abilities to move in water, dive, fight in water, engage in combat maneuvers, attack ships, and swim in full armor. In 381-382 AD, during the war with the Gauls, the Romans communicated with besieged cities through allied legions of swimmers (Figure 5).

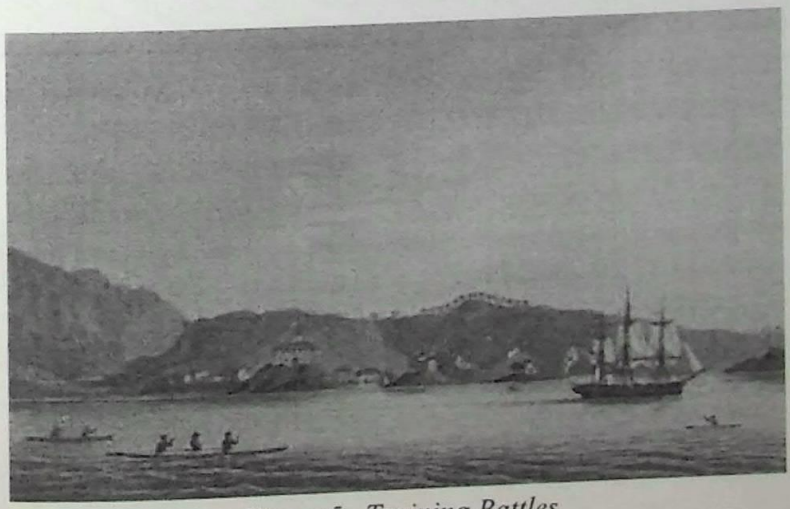

Figure 5. Training Battles.

Swimming became a part of daily life for all social classes of the Roman Empire. The poet Ovid noted that Emperor Augustus's granddaughter was taught to swim by her servants. Undoubtedly, Roman women were well-versed in swimming. A famous story illustrates this: Agrippina, the mother of Nero, is said to have escaped from a ship by swimming after an attempt on her life by her son. During the Roman Empire, public buildings often featured significant bathing facilities.

Before the peak of the Roman Empire's prosperity, there were about 170 bathhouses, both public and private, in ancient Rome. By the beginning of the 4th century, their number had already reached nearly 1,000. Among

them, the vast imperial baths stood out. The Baths of Trajan, built by the architect Apollodorus for Emperor Trajan, included a large swimming pool intended for the masses, with accompanying library rooms, meeting and relaxation halls, and water features. The relaxation area featured running tracks and gardens.

The luxurious conditions of thermal baths attracted large numbers of people, especially from the middle and lower classes of Roman society. Among the most impressive in scale and grandeur were the Baths of Caracalla, built in the early 3rd century by emperors of the Severan dynasty. Covering an area of 450x450 meters, the Caracalla Baths included pools, gyms for athletic games, libraries, and park areas. The construction of this architectural masterpiece began in 306 AD.

Swimming and bathing became so deeply ingrained in Roman life that the ancient patricians used it as a form of therapy. According to the ancient Roman writer Pliny, for centuries, six generations of Romans lived without doctors thanks to swimming and bathing. Romans, being fond of various spectacles, often held "naval battles" in water-filled circuses, which frequently ended in deadly water brawls (see Figure 6).

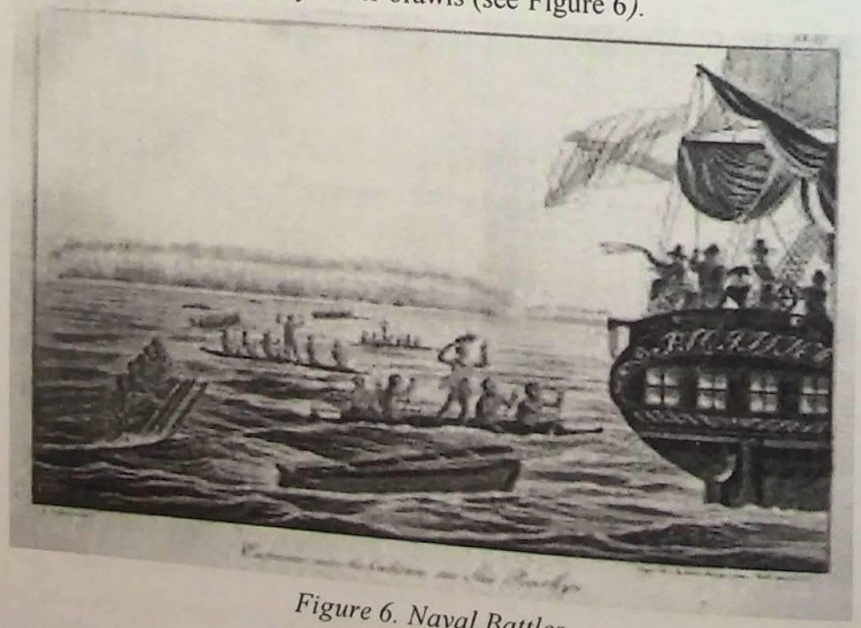

Figure 6. Naval Battles.

The development of swimming dates back to Ancient Rome, where it must be said that people had already mastered the art of swimming. The people of Europe (Slavs, Gauls, Franks, and others) successfully developed it further and used it for both practical and military purposes.

Control Questions:

1. In which ancient countries was swimming well developed?
2. What was the significance of swimming in the Roman Empire?
3. What is the name of the first book about swimming?
4. What was the role of swimming in military practice in Ancient Rome?

1.2.1. 1918–1941

The Development of Swimming in Uzbekistan

The first steps of mass swimming in Turkestan began in 1918 with the establishment of Vseobuch (Universal Military Training), which led to the formation of an amateur swimming club under the Tashkent People's University. The members would gather and swim or bathe together at their favorite spots along the Salar or Bozsuv rivers.

The development of competitive swimming in Uzbekistan began in the 1920s. In 1920, a 15-meter swimming pool and a therapeutic solarium were constructed between the present-day "Paxtakor" Stadium and the Anhor Canal in Tashkent, funded by the well-known physician brothers, the Slonims. This location became the site of the first swimming school in the Turkestan Republic. Approximately 800 people of different ages and genders learned to swim at the school. The founder and sole coach of this school was Sidney Lvovich Jackson, who came from the USA in 1914. He was a versatile athlete and an initiator in sports development. His first students included swimmers such as P.T. Taranov, V.K. Morozov, and others.

In 1921, the establishment of the Central Council of Physical Education under the Turkfront Vseobuch administration played a major role in the development of swimming.

In 1922, the "Fortuna" sports society was formed, which united amateur swimming groups and hosted the first club swimming championships. That

same year, the first swimming competitions for the Tashkent city championship were held. Sidney Jackson won in all the distances.

In 1924–25, a hydroelectric station was built on the Bozsuv River near Tashkent, and sports activities in swimming continued in the reservoir formed by this station. However, there was no water station specifically for swimming for quite some time. Later, a boat station was established on the bank of the reservoir.

In 1927, the construction of the first water station with a 50-meter swimming pool in the TashGRES reservoir on the Bozsuv canal was a major event in the sports life of the republic. That same summer, a meeting was organized with swimmers from the city of Samara. One of the Samara participants, N.N. Tarasov, remained in Tashkent and began working as a swimming instructor for various water sports. Shortly thereafter, a second water station was built near the first one by employees of Tashtram. These water stations became popular training locations for swimmers and venues for numerous water sports competitions. At the end of the summer of 1927, swimming competitions were held at these stations by the Turkestan Military District, as well as events that were part of the 1st All-Uzbek Spartakiad. The widespread promotion and serious campaigning of swimming greatly contributed to its growing popularity.

In the program of the 1st All-Uzbek Spartakiad, swimming was not included in the overall team competition "because in some districts, due to the underdevelopment of water sports in Uzbekistan, the conditions would have been unequal." For the same reason, in the 2nd All-Uzbek Spartakiad, held in 1929, only individual championships for the republic were contested. Following the aforementioned competitions, many young people began joining swimming clubs. The best swimmers were selected to participate in the All-Union Spartakiad held in Moscow. The team consisted of five members: two women — N. Shak and N. Lobova, and three men — P. Kravchenko, G. Vasilenko, and I. Sadiqov (all from Tashkent). The Uzbekistan swimming team did not perform well in the Spartakiad and only managed to surpass the Turkestan team, placing 16th overall. However, what was significant was that the participants of the All-Union Spartakiad

were introduced to the country's top swimmers, the most advanced swimming techniques of the time, and modern training methodologies.

The participation of Uzbek swimmers in the All-Union Spartakiad stimulated the development of competitive swimming in cities such as Bukhara and Andijan. In Bukhara, the swimmers began training in the city's largest artificial reservoir — Labi Hovuz. In Andijan, the artificial reservoir located in the city park was chosen for this purpose. Under the leadership of coaches P. Kravchenko and N. Tarasov, regular training sessions and exhibition competitions began. Water festivals were frequently organized, where, alongside Tashkent swimmers, Andijan swimmers also began to take part. In 1928, a water station was also launched in Khojand, near the Syr Darya River.

To improve the quality of educational and sports work in swimming, several instructional manuals played an important role — A.A. Jemchuzhnikov's (1925) and I.V. Cherkan's (1927) training guides, as well as the book "Swimming, Diving, and Water Polo" (1928) edited by N.A. Butovich, along with official swimming competition rules. However, the scale of the work and the number of people involved in this sport in the republic did not yet meet demand for many years. It was particularly difficult to involve locals, especially women, in swimming due to religious and traditional customs. There was a shortage of specialists, no winter swimming pools, and few summer facilities. As a result, enthusiasts often had to start from scratch every summer, as those who swam during the warmer months would shift to other sports in the winter. Nevertheless, such conditions helped some dedicated swimmers to develop into versatile athletes. They began to participate in competitions in gymnastics, diving, rowing, and other related disciplines. Many veteran swimmers who proudly called themselves water sports athletes — such as S.L. Djackson, N.N. Tarasov, P.V. Kravchenko, P.T. Taranov, and others — began their sports careers in this very way.

The development of swimming as a sport in Uzbekistan was significantly influenced by the government's resolution "On the Physical Education Movement in the Country." As a result, the number of people interested in swimming greatly increased, existing water stations were

improved, and a 32.5-meter pool at the Poltoratsky Hospital (now Tashkent Medical Institute) was launched. However, the main training locations for Uzbek swimmers remained the water stations at the Bozsuv reservoir, while the pool at Poltoratsky Hospital was used primarily for therapeutic purposes for a long time.

In 1930, N. Anufrieva, the breaststroke champion of Moscow, came to Tashkent. Until 1932, she actively participated in all competitions held in the republic, helped organize them, worked as a coach, and shared her experience with young swimmers.

The visit of the Norwegian workers' sports delegation to Tashkent in October 1931 was a major event in the social life of Uzbekistan. Swimmers were also included in the delegation. Friendly competitions with the foreign guests attracted the attention of large crowds. Uzbek coaches and athletes became acquainted with new swimming techniques.

From 1931 to 1934, the development of the All-Union unified physical training program "Ready for Labor and Defense!" (GTO) expanded the scope of swimming activities in the republic.

It is true that since Uzbekistan was considered a water-scarce region, fulfilling the GTO swimming standards was not mandatory there. However, in Tashkent, this initiative gained widespread popularity. Preparing to meet the swimming standards increased young people's interest in acquiring this practical skill. Competitions to meet GTO standards were organized at water stations located near water reservoirs. During this period, coaches such as V.N. Sivintsev, P.V. Kravchenko, N.I. Shak, and P.T. Taranov made significant contributions.

In 1934, a water pressure tower was built in the Suv Boghli area for the city's water supply system, and swimming was prohibited in that location. As a result, the water stations were closed, and Tashkent swimmers lost access to one of the best sports facilities. Although there were three swimming pools in the capital at the time, two of them were located within military units, making access inconvenient, and the third was under the administration of TashMI (now Tashkent Medical Institute) and was still used solely for therapeutic purposes.

Neither that pool nor the new one built in 1935 by the textile factory met the necessary standards: their dimensions were non-standard (one was even circular), and they lacked starting blocks and swimming lanes. Because of this, swimming was excluded from major sports events. For example, in 1934, it was removed from the program of the Spartakiad of the Central Asian republics and Kazakhstan. Nevertheless, work related to swimming did not stop. The well-known swimmer V.N. Mikhaylov began working as a coach with young swimmers of the Central Asian Military District, training them at the Turkestan Military District pool. Many of these trainees later became leading coaches in the republic.

The first Uzbekistan Championship in swimming was held in 1935 in Andijan. Teams from Andijan, Fergana, and Kokand participated in full force, while only four swimmers from Tashkent took part. In the freestyle events of 100m and 200m, Andijan's N. Davidenko won, while Tashkent's V. Mikhaylov triumphed in the breaststroke, A. Vaynin in the backstroke, and N. Zokirov in the 100m, 200m, and 400m freestyle events, becoming the first republic champions. However, their results were not very impressive, as they were only at the level of the second class.

Analyzing the competition, swimming coach N. Shakh wrote in the August 23, 1935 edition of the "Uzbekistan Physical Culture" newspaper: "Despite the poor results, the competition benefited water sports. The participants gained knowledge about swimming techniques and formed a sense of unity. After returning home, they must use their strength to promote and develop this beautiful, but unfortunately, still not widespread sport in our country." It was also noted that the selection competitions were not held in the cities, and the claims of the contenders about their knowledge of swimming techniques were taken at face value. As a result, some participants admitted they did not know how to swim properly before the start and refused to enter the water. It was emphasized again that despite having a wonderful pool in Andijan, due to the lack of specialists, no work had been done there.

In the same year, swimming competitions were held at the pool as part of the Central Asian Military District Spartakiad program, and the Tashkent

Championships were organized at the TashMI pool both that year and in the following years.

The sports community could not reconcile with the difficult situation that arose in water sports facilities. The media in the republic and the city of Tashkent once again raised the issue of developing water sports, building swimming pools, and addressing the need for water sports infrastructure. On March 12, 1936, an article in the "Uzbekistan Physical Culture" newspaper stated: "The Bozsuv water station, a favorite place for the youth, remained in everyone's memory during its operation. Starting from early spring, thousands of workers, especially young people, would fill this water station. Swimming, diving, and rowing competitions were held here, and the GTO standards were also carried out. After the water pipes were installed, the station was closed. After that, swimming activities stopped, and only 20 swimmers participated in the first competition held in Andijan in 1935, none of whom were women. Pools are necessary, and it is essential to develop water sports facilities." The newspaper also highlighted that in 1934, only 19 people had met the swimming standards of the GTO program. The issues raised by S.L. Jackson and others in the March 24, 1936 edition of the newspaper were consistent with these concerns.

Some of the swimming events planned for the year were not held. For example, swimming festivals that were supposed to be organized in Andijan and Tashkent as part of the III All-Uzbek Spartakiad in 1936 were not carried out, and swimming was not included in the Spartakiad program.

In 1936, with the help of the government and youth organizations, the material base for swimming activities in Uzbekistan was significantly expanded. At the end of 1936, a 25-meter open swimming pool was built at the cultural and recreation park for railway workers in Tashkent, and in 1937, the city opened its first swimming sports school for children. The school was led by V.N. Mikhailov (see Figure 7).

Figure 7. The first open swimming pool in Uzbekistan.

The 1937 Uzbekistan Championship was held at the textile plant's swimming pool and brought great success for the swimmers. Fifty participants from six physical culture collectives (KSJ) took part in the competition. Eight national records were set. In breaststroke swimming, Dynamo club member S. Kolesov set records with the following times: 100 m – 1:35.5 seconds ; 200 m – 3:35.7 seconds; 400 m – 7:01.8 seconds. In front crawl with the chest stroke (a variation of freestyle), V. Glushchenkov also set records: 100 m – 1:07.7 seconds; 400 m – 5:09.5 seconds. He represented the "O'qituvchi" KSJ team. Although his result in the 400 m swim was the best in the entire Union at the time, it was not officially recognized as an Uzbekistan record, since V. Glushchenkov was a student at the Kharkov Aviation Institute at the time.

In 1938, swimming pools became unsuitable for sports training as they turned into mere public bathing places. Once again, the issue of constructing proper sports pools and water stations became urgent. With the help of youth, basins for artificial lakes began to be prepared in Tashkent and Samarkand. The swimming pool in the Railway workers' park was filled in, and in its place, the Komsomol lake was created by the citizens of Tashkent in 1939 on a 9-hectare park area through community effort. Two large water

stations were built on the lake using floating platforms: in autumn 1939, the "Spartak" station; in spring 1940, the "Dynamo" station (later renamed "Mehnat"). These stations became the primary training bases for Uzbekistan's swimmers for many years. The Republican swimming section was established, and leading coaches such as A.K. Smirnov (honored coach of Uzbekistan), V.N. Mikhaylov, P.M. Borodkin, N.T. Shuljenko, N.M. Kopfer, and V.T. Bondarenko (honored coach of the former USSR) began working there. The section effectively addressed various organizational and methodological issues related to the development of swimming in Uzbekistan and organized competitions on a national scale. As the number of swimmers increased, the results in this sport also improved.

In 1939, the Uzbekistan swimming federation was established. Its first president was A.K. Smirnov. Later, the federation was headed by U.S. Bektemirov, F.I. Rakhimov, and O.K. Adamanov. By 1941, Uzbekistan had trained: 33 first-class swimmers, 12 second-class swimmers, 30 third-class swimmer (see Figure 8).

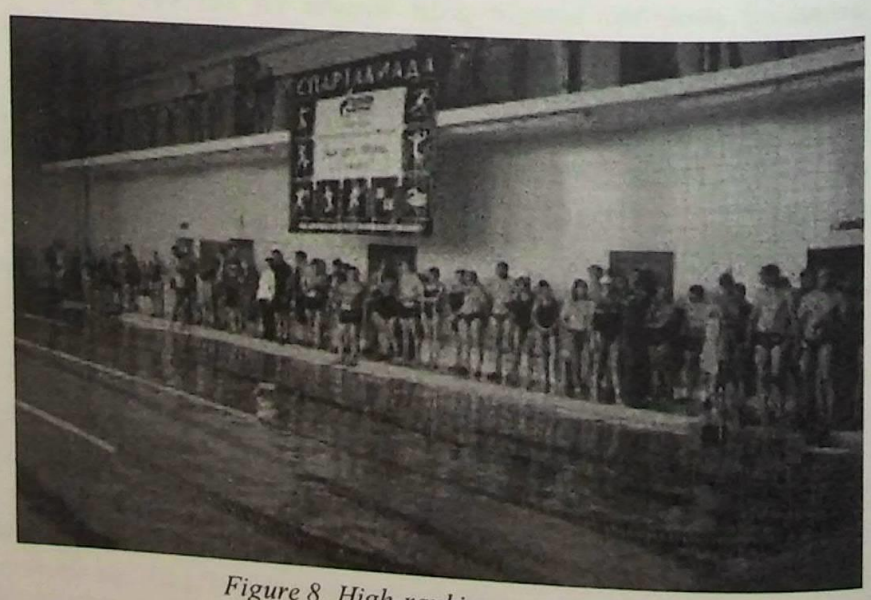

Figure 8. High-ranking swimmers

Control Questions

1. In which century did the development of competitive swimming begin in Uzbekistan?
2. In 1920, how many meters long was the swimming pool built by the Slonim brothers in Tashkent?
3. In what year was the first swimming championship of Uzbekistan held?
4. When was the "Fortuna" sports society established?

1.2.2. Development of Swimming in Uzbekistan During the Years 1941–1945

Germany's attack on the Soviet Union fundamentally changed the direction of physical education and sports activities. Due to the introduction of general military training across the country, all coaches were recruited to work at military training centers established in every district of Uzbekistan. Young recruits and conscripts were taught not only to swim but also to dive, swim in clothes and with weapons, and cross rivers using available equipment.

The "Dynamo" and "Spartak" water stations on Komsomol Lake operated at full capacity. Mass competitions were organized, and young people and professionals from various fields actively participated. For instance, in 1942, 4,300 people took part in swimming competitions held across the republic.

Many Soviet Union champions who were in Tashkent during the war played a significant role in these efforts, including sisters E. and A. Vtoroval, L. Meshkov, Yu. Kochetkova, coach and honored master of sports Docent N. Butovich, I.L. Krivenko, sisters T. and Z. Briksina, as well as Uzbekistani coaches V.N. Mikhailov and O.V. Veselov.

In 1944, educational and sports activities in swimming significantly expanded. On July 18, the Republic celebrated the All-Union Physical Culture Workers Day. At the "Dynamo" water station, the Tashkent Championship in swimming was held. In the individual and team competition of the Tashkent Championship, 100 people participated, and 5 new republic records were set. Soon after, the swimming competitions

within the program of the 8th Spartakiad of the Central Asian Military District troops were also held at this location. During the next Uzbekistan individual-team championship, several more republic records were set. Teams from Tashkent (2 teams), Andijan, and Tashkent region took part (listed in order based on their placements). In the 400m and 200m freestyle events, the Tashkent swimmer R. Abyazov emerged victorious. Based on the results of these competitions, a national team of Uzbekistan was formed to participate in the Spartakiad of the Central Asian republics and Kazakhstan. Under the leadership of coaches A.K. Smirnov and N.M. Kofner, the team prepared very well for the Spartakiad.

In 1945, competitions within the framework of the Uzbekistan Spartakiad, as well as the Republic Championship, were held. The Uzbekistan team participated in the USSR Championship held in Lviv, where they finished fourth in the second group. Despite this, preparations for the upcoming All-union physical culture parade in Moscow led to a slight decline in the intensity of training activities. This was reflected in the results shown by Uzbek swimmers in the next Spartakiad of the Central Asian republics and Kazakhstan, where, for the first time, the team from Turkmenistan claimed victory.

In the following years, the organization of swimming activities improved, the sports results of Uzbekistan's leading swimmers increased, and new talented athletes began to emerge.

Control Questions:

1. How many participants took part in swimming competitions in the republic in 1942?

2. When was the All-union physical culture workers day celebrated in the republic?

1.2.3. The development of swimming in Uzbekistan from 1946 to 1991.

In 1946, the water sports section was re-elected, and leadership was once again entrusted to A.K. Smirnov, just as it had been in the pre-war years. Soon after, he was sent to Lviv for a three-month coaching course. Championships were now held not only in cities but also among sports

societies (KSJs). To involve more participants, some physical culture organizations held competitions according to a simplified program (distances of 50 and 100 meters). According to this program, 124 people participated in the "Spartak" KSJ championship in 1946, and 90 people took part in the republican championship.

Almost all swimming records in Uzbekistan were renewed. Especially notable was the young dynamo swimmer G. Filkov, who demonstrated his skill by setting record times in the breaststroke for 100, 200, and 400 meters, as well as in the backstroke for 100 and 200 meters, with times of 1:19.4, 3:10.0, 6:49.0, and 1:24.3, 3:12.4 respectively.

In 1946, great attention was paid to working with children. A swimming section was opened at the youth sports school established in Tashkent. This was primarily due to the introduction of comprehensive testing at All-Union competitions (based on the combined results of adults and children). In the 1946 Uzbekistan school students' Spartakiad, 2 participants achieved the standards for first class rank, 9 for second class, and 21 for third class.

In the same year, at the USSR championship, the Uzbekistan team rose to ninth place thanks to the performance of young swimmers. In the 4x100 meter freestyle relay, the girls' team took fifth place, while the boys' team took sixth. According to that year's report from the Republican committee for physical culture and sports, there were 8 swimming pools in Uzbekistan, with 2,537 people practicing swimming.

In 1947, young and talented swimmers continued to be admitted to the national team. During this sports season, not only was it possible to make 27 updates to the table of republican records, but conditions were also created for the team to take 8th place in the overall standings at the national championship.

During this period, the strongest swimming team in Uzbekistan was the "Dynamo" Sports Society team, led by coach A.K. Smirnov. Swimming activities were also well organized at the "Spartak" Sports Society, where senior coach E.P. Dementyev was active. Swimmers from these schools joined the national team of the republic and, at the 1947 USSR Championship, they secured 10th place in the overall team standings and 4th place in the 4x200 meter relay.

In 1948, at a match held in Tashkent between the teams of the Central Asian republics and Kazakhstan, Uzbekistan's national swimming team achieved victory. A. Gerasimov set a record time in the 100-meter freestyle – 1:05.2. That same year, he broke several other records: in the crawl stroke – 400 m in 5:23.8; 500 m in 7:25.8; 1500 m in 23:23.4; and also 100 m sidestroke in 1:16.2. The following swimmers also set new records: G. Pizhonkov – 200 m breaststroke – 3:03.5; R. Khamzin – 300 m sidestroke – 4:42.2. The swimmer from Margilan, N. Rubsova – 100 m and 200 m sidestroke – 1:37.8 and 3:40.0 respectively, among others (see Figure 9).

Figure 9. Match between the teams of the Central Asian republics and Kazakhstan.

Swimming became increasingly popular in the cities of Samarkand, Margilan, and Kokand. The swimming teams from these cities also participated successfully in the Spartakiad of the "Spartak" Sports Society. The government resolutions of December 27, 1948, and those in 1949 played a significant role in the further development of physical culture and sports in the republic. In June 1949, a seminar for Uzbekistani coaches was held under the leadership of A.K. Smirnov to improve the qualifications of swimming coaches and referees.

Swimming sections were opened in many sports societies and in all regions of Uzbekistan. For example, in the 1950 VI All-Uzbekistan Spartakiad, 107 participants competed, and the following team results were recorded (in order of placement):

1. Tashkent
2. Samarkand region
3. Andijan region
4. Namangan region
5. Fergana region
6. Tashkent region
7. Bukhara region
8. Khorezm region

A. Gerasimov competed in 7 different distances (100, 200, 400, and 1500 meters freestyle; 100 and 200 meters backstroke; and 300 meters sidestroke), and won in all of them with results considered outstanding for that time. During this period, the talented athlete Yu. Frolov also began to rise to the forefront.

In 1953, Yuriy Frolov became the first swimmer from Uzbekistan to earn the title of FORMER USSR Champion. As part of the national team, he was among the first to participate in international competitions held abroad.

The lack of facilities for year-round training, the inability to properly assess physical preparedness, and the limited opportunities to compete with the country's top swimmers hindered swimmers from Uzbekistan in achieving strong results.

In 1951, a 25-meter swimming pool was built at the Fergana pedagogical institute. A continuous training system with the republic's top swimmers was established. Previously, swimmers usually stopped training during winter, but from this time on, the off-season began to be used to improve general physical fitness and enhance sports skills. Every year, the Uzbekistan national team began to spend 1.5 to 2 months during the winter in training camps held in cities with indoor swimming pools. These training camps were of great importance. On the one hand, the team's management met with the country's top coaches, observed the best swimmers' training

sessions, and enriched their knowledge of swimming techniques, teaching methods, and training approaches. On the other hand, Uzbek swimmers were able to extend their competitive season, learn a great deal from their stronger and more experienced peers, and gain valuable competitive skills. Upon returning to Uzbekistan, they shared the invaluable knowledge they had acquired with other coaches and swimmers. Thus, under the leadership of A.K. Smirnov, V.T. Bondarenko, and G.A. Filkov, a winter training camp for the republic's strongest swimmers and talented youth was held in Leningrad in 1952. All of this contributed to the breaking of records in nearly all distances during the summer season.

For the first time, the Republican spartakiad of the SJKF (Voluntary federation of sports societies) was held. Following this, Uzbek swimmers participated once again in the match between athletes of the Central Asian republics and Kazakhstan—and emerged victorious. The Uzbekistan championship among regional teams became the final competition of the season (Figure 10).

Figure 10. The republican spartakiad.

The fact that 7 teams participated in the Republican spartakiad indicates that swimming was becoming increasingly popular. These teams placed in the following order: "Spartak," "Dynamo," "Nauka," "Lokomotiv," "Iskra,"

"Medik," and "ODO." During this time, Yu. Frolov achieved the master of sports standards in the butterfly stroke, 200 meters, and in 1954 became the FORMER USSR champion. Among the strongest female swimmers were T. Potapova (a master of sports and FORMER USSR Championship medalist), A. Mikhailina, V. Mochalina, and others from Tashkent's school.

In 1952, Uzbek swimmers won the Spartakiad of Central Asian republics and Kazakhstan. New republic records were also set in these competitions and in the following republic championship. However, despite these successes, when compared to the results of the country's strongest swimmers, the achievements of Uzbek swimmers were still not very prominent. In the 1962 FORMER USSR Championship, the Uzbekistan school students' team only placed 9th.

The difficulties in developing water sports in the republic were not only a concern for the sports community but also for physical education leadership organizations. According to the report of the Republic physical education and sports committee for 1952, it was emphasized that "the main obstacle to improving Uzbekistan's sports-technical indicators is that there is no single winter swimming pool in the republic, and in the regions, there are almost no swimming pools suitable for jumping. The lack of qualified coaches and convenient sports facilities also has a severe negative impact on improving mass and sports activities in swimming and diving." Naturally, these issues hinder efforts to engage children and young people in mass swimming activities. The absence of mass participation, in turn, prevents the flow of new talented athletes into the team.

As a result of the measures taken, swimming was included in the "Pakh-takor" KSJ I Spartakiad held in Samarkand in 1953. That same year, 5 regional teams participated in the Republic Championship, and in the 1954 VIII Uzbekistan Spartakiad, swimmers from 10 regions took part.

To enhance the training of regional swimmers, the Republic team, consisting solely of Tashkent swimmers, participated separately. However, despite some weakness, the Tashkent team advanced significantly. This showed that it wasn't due to their high skill, but rather that many regional athletes were inadequately prepared. Only Fergana's V. Zakharov (1st place in 400m freestyle with a time of 5.18.5 and 2nd place in 100m freestyle with

1.04.6) and L. Nurmatova (3rd place in 200m with a time of 3.49.9) demonstrated good results. Among the best swimmers in the Republic, local athletes like Ruzmatova, Shoniyozova, and Mammadaliyev also joined. In the 1954 Spartakiad of the Central Asian Republics and Kazakhstan, Uzbek swimmers faced failure – at "home," they lost to the Kazakhstan team.

In 1955, the Department of Swimming was opened at the Uzbekistan State Institute of Physical Education, which became the primary institution for training coaches in water sports. Over the years, the department trained more than 600 specialists in swimming, water polo, diving, modern pentathlon, open-water rowing, kayaking, canoeing, and synchronized swimming.

The year 1955 was a preparation year for the athletes for the first spartakiad of the peoples of the FORMER USSR. In order to identify the best swimmers, regional competitions were held. Only five teams from these regions were able to qualify for the republican championship. For the first time, these competitions were held according to the program and relevant rules adopted at the all-Union competitions. The distances were shortened, and the races themselves were organized with preliminary and final rounds.

In winter, a training camp was held in Kiev under the leadership of coaches A.K. Smirnov, V.T. Bondarenko and P.M. Borodin. Through such intensive activities, the swimmers continued to improve their athletic skills. It was at this camp that new records of Uzbekistan were set:

- R. Gribkova – freestyle, 400 m – 5:41.8
- T. Potapova – butterfly, 100 m – 1:23.3
- A. Gerasimov – freestyle, 400 m – 4:56.5

Uzbek swimmers also participated in the championships of the "Lokomotiv" and "Spartak" Central Sports Societies (CSS). In these events, T. Potapova (currently honored coach of Uzbekistan T.F. Lyagina) especially stood out by becoming the champion of the Lokomotiv CSS in the 100-meter butterfly, while R. Gribkova of Spartak won the 400-meter freestyle, showcasing their skills. Many other Uzbek swimmers also demonstrated strong performances, which allowed them to join the national

teams of these sports societies and take part in competitions for the "Komsomolskaya Pravda" newspaper prize.

During the summer season, after intensive preparation, our swimmers participated in the 9th Spartakiad of Uzbekistan and competed relatively successfully in the Spartakiad of the Peoples of the former USSR. The republican team, having scored 10,471 points, surpassed the teams of all other Central Asian republics, as well as Armenia, Lithuania, Latvia, Moldova, and the Karelo-Finnish ASSR, securing 9th place overall. In these major competitions:

- T. Potapova swam the 100 meters butterfly, placing fifth with a time of 1:22.5, and
- A. Gerasimov swam the 200 meters butterfly, finishing in eighth place with a time of 2:48.7.

In 1957, a 50-meter outdoor swimming pool with heated water was built in the city of Chirchiq. That same year, the construction of a 25-meter heated swimming pool began in Andijan, modeled after the one in Chirchiq (it was completed and opened in 1959). A smaller pool was also built at the Suvorov Military School in Tashkent. Since the length of the pool was relatively short, rubber stabilizers were installed during swimming lessons to help swimmers maintain their balance in the water.

In 1957, Uzbekistan's swimmers maintained their position at the all-Union level and achieved major success at the Spartakiad of the Peoples of Central Asian republics and Kazakhstan, claiming first place in nearly all distances, and securing a large team victory. L. Kolesnikov stood out among the athletes, delivering an impressive performance in the 200-meter breaststroke with a time of 2:44.8, and soon after became a Master of Sport, and a champion of the FORMER USSR and Europe.

The number of people involved in swimming continued to grow, and the overall level of athletic skill increased significantly, with many young, talented swimmers emerging. A notable event in the history of swimming development in the republic was the international friendly match held in Tashkent from June 15–17, 1958, between the national teams of China and Uzbekistan. The competition ended in victory for the Uzbek swimmers.

Uzbek swimmers also participated successfully in the All-Union Spartakiad of Trade Union Sports Societies (CSS). The team from the Tashkent locomotive repair plant secured 5th place, and in the women's 4x100 meter medley relay, the group consisting of O. Gotmanova, N. Karaulova, T. Potapova, and N. Indyukova took first place. In the 100-meter butterfly, T. Potapova won a gold medal and fulfilled the standards required to become a Master of Sport.

At the 10th All-Uzbek Spartakiad, the number of participants was at its highest, with 143 athletes. Swimmers from all regions, the Karakalpak ASSR, and the city of Tashkent took part. Despite this growth, in the 1958 in FORMER USSR national championship, our national team was unable to rise above ninth place.

The Uzbekistan national team prepared for the Second spartakiad of the peoples of the FORMER USSR in 1959 with even greater enthusiasm. Special attention was given to the athletes' overall physical conditioning, and an intense winter training camp with a heavy workload was held in Moscow.

This serious preparation paid off. At the Second Spartakiad of the peoples of the FORMER USSR, 16 members of the national team from the republic met qualifying standards—achieving results higher than the first-class category. This was an unprecedented event in the history of the Uzbek swimming team (in the previous year's national championship, only two results by Uzbek swimmers had exceeded the first-class standard). However, despite this record number of high-level performances, the team still only managed to place ninth overall.

The outcomes of that Spartakiad set a clear challenge for Uzbek coaches and swimmers: to break this recurring pattern using all available opportunities. Unfortunately, at the 1960 FORMER USSR national championship, this goal was not achieved once again. As a result, despite quantitative improvements in performance, the Uzbek swimmers were unable to make the necessary qualitative leap in terms of team ranking.

Restructuring the organizational approach to working with the Republic's top swimmers, particularly eliminating the lack of coordination

in coaching activities, could have created the necessary conditions for such progress.

In September 1960, the Republican School of higher sports mastery was established. Forty swimmers were admitted to the swimming division, consisting of first-class athletes and promising second-class athletes. The training process in the swimming section was led by the republic's best coaches: A.K. Smirnov, V.T. Bondarenko, V.P. Lyutiy, and A.E. Shpolyanskiy. The national team, working under a unified plan, was now able to train together consistently over several years in preparation for competitions.

A long-term preparation plan was developed for the third spartakiad of the peoples of the FORMER USSR, which included specific goals—such as the systematic improvement of results year by year until 1963—and clearly defined standards for both general physical conditioning and swimming performance benchmarks.

At the same time, serious consideration was given to significantly increasing the volume and intensity of training loads. During the winter season, the strongest swimmers had the opportunity to train three times a week at the heated pool in Chirchik, and they were also allocated time to train in the gymnastics hall of the "Pakhtakor" stadium.

In the 1962–63 period (November to March), athletes regularly engaged in physical training, which covered 80–100% of the total training time and greatly improved their physical conditioning.

In 1961, a swimming department was opened at the Republican boarding school specialized in sports named after G.S. Titov (later the Republican Olympic Reserve School, now the Republican Olympic Reserve College).

At the beginning of 1961, the Tashkent national team held a training camp in the city of Karaganda, and at the end of the camp, match meetings were held with the national teams of Almaty and Karaganda. Except for the 100m butterfly event, Uzbek swimmers won in all other distances. The summer competitions held among the teams of higher educational institutions of the Republic, based on the program of the Uzbekistan Trade

Unions Spartakiad, as well as participation in the All-Union Spartakiad of Trade Unions, served as a great learning experience for the swimmers.

These efforts quickly bore fruit. In 1963, at the III Spartakiad of the Peoples of the former USSR, swimmers of the Uzbekistan national team won gold medals for the first time:

- Svetlana Babanina in the 400m individual medley – 5:49.8;
- S. Babanina, N. Ustinova, R. Manina, and R. Pavlova in the 4x100m freestyle relay.

In the 100m freestyle competition, N. Ustinova won a silver medal (1:06.5).

Bronze medals were won by S. Babanina in the 200m breaststroke (2:55.5) and by N. Ustinova in the 400m freestyle (5:14.7).

That same year, for the first time, T. Kholboev and B. Dudchin (coach – V.T. Bondarenko) achieved the standards required to earn the title of Master of Sport of the former USSR in swimming. S. Babanina became a record holder of the former USSR in the individual medley, and N. Ustinova in the 100m freestyle.

When speaking of these swimmers and, in general, the major victories of the national team of the republic, it is essential to highlight the dedicated efforts of the outstanding coaches A.K. Smirnov, V.T. Bondarenko, V.P. Lyutiy, and A.E. Shpolyanskiy.

On February 29, 1964, the opening of the V.S. Mitrofanov Water Sports Palace in Tashkent was a major event in the sports life of Uzbekistan. The palace featured a 50-meter swimming pool. As a result, our swimmers had the opportunity to improve their athletic skills throughout the entire year.

Many of the republic's swimmers significantly improved their results as early as 1964. A number of Uzbek swimmers were nominated for the Union national team. S. Babanina and N. Ustinova secured strong positions in the national team and became winners of many international competitions.

In May 1964, during a match against German swimmers, S. Babanina swam the 200-meter breaststroke in 2:46.9 seconds. This was the second-best result in the history of world swimming at the time. N. Ustinova repeatedly broke the Union record in the 100-meter freestyle.

In September 1964, at the USSR Championship, both of our athletes achieved major new successes. S. Babanina won three gold medals in the 100m and 200m breaststroke and the 400m individual medley. Her result in the 100m breaststroke set a new world record (1:17.2), and her result in the 400m individual medley set a new Union record (5:44.2).

Figure 11. S. Babanina

In the 100m freestyle, N. Ustinova became the national champion and won the gold medal (1:03.5). In the same stroke over the 400m distance, she took second place.

For the first time, Uzbek swimmers earned the right to participate as part of the FORMER USSR national team in the XVIII Olympic Games held in Tokyo.

In this competition, S. Babanina took third place in the 200m breaststroke. For their participation in the 4x100m medley relay as members of the FORMER USSR national team, S. Babanina and N. Ustinova were awarded bronze medals.

N. Ustinova, a freestyle swimmer and student of A.E. Shpolyanskiy, became the European champion and record holder in the 100m and 200m freestyle and relay events (1966), and a 16-time champion and record holder of the FORMER USSR (1963–1968).

During 1964–1965, S. Babanina (a student of Honored Coach of the FORMER USSR V.T. Bondarenko) became a two-time world record holder in the 100m breaststroke. From 1962 to 1968, she set 18 records in Uzbekistan and the FORMER USSR.

Svetlana Viktorovna Babanina currently works in the swimming department of the Republican College of Olympic Reserve. She was awarded Honorary Diplomas by the Supreme Soviet of Uzbekistan in 1963, 1965, and 1968. In 2001, she was recognized as the best female athlete of the 20th century, and in 2002, she was awarded the title "Honored Coach of Uzbekistan."

Sergey Konov, a student of coach A.A. Shvarsman, participated in the XIX Olympic Games (1968), and in 1969, he became the USSR champion in the 200m butterfly.

The contributions of Honored Coach of the Republic A.K. Smirnov to the development of swimming in Uzbekistan are immense. He trained several generations of highly skilled athletes, among whom were multiple-time champions and record holders of Uzbekistan: A. Gerasimov, master of sport Arkipov, USSR champion and master of sport Yu. Frolov, USSR championship prize-winner and master of sport T. Lyagina, and others. A.K. Smirnov was also a longtime mentor to V.T. Bondarenko, the coach who trained world champion S. Babanina. Many of his students went on to become highly qualified coaches. These include: A.E. Shpolyanskiy, who trained USSR champion and record holder N. Ustinova; Yu.S. Chernov, head coach of the Uzbekistan national water polo team; R.I. Khamzin, head coach of the Kyrgyz SSR national swimming team; as well as M.P. Shipovnikova, T.G. Lyagina, and others. A major factor in the further success of swimming in Uzbekistan was the increase in the number of children's sports schools with swimming departments, as well as the establishment of specialized swimming training centers under the

Republican School of Higher Sports Mastery and the sports societies "Mehnat," "Spartak," and "Mehnat Rezervlari."

In this regard, the resolution adopted by the Central Committee of the Union of Sports Societies and Organizations on the eve of the III Spartakiad of the Peoples of the former USSR was considered important. As early as February 1964, the Presidium of the Republic of Uzbekistan also passed a resolution on this matter.

The Department of Swimming at the Uzbekistan State Institute of Physical Education, in cooperation with the Republic Swimming Federation, developed guidelines for implementing the resolutions of the Central and Republican unions. It was planned to establish permanent commissions to oversee the mass instruction of swimming among the population in cities and regional centers of Uzbekistan. Instruction in swimming was organized at water sports bases for students of nearby schools, technical colleges, and higher educational institutions, as well as for employees of enterprises and organizations. To train instructors, the institute's Department of Swimming, together with the coaching council of the sports society, organized seminars for teachers from schools and higher and secondary specialized educational institutions, as well as for senior swimmers.

In Tashkent, Andijan, Navoi, and Fergana, new youth swimming schools were opened to increase public participation and to develop a reserve of athletes for the national team.

The Navoi city "Mehnat" Specialized Youth Sports School (BO'SM) also became one of the leading swimming centers in the Republic. The head coach of the school was O.G. Olishkevich, an Honored Coach of Uzbekistan. In this sports school, Lyudmila Chertova, the champion of the 1976 All-Union Spartakiad of schoolchildren and a Master of Sports, was trained. She set new republican records in the 100 and 200-meter freestyle with times of 1:00.64 and 2:10.36, respectively.

By 1977, there were 4,649 swimmers with official ranks recorded in Uzbekistan, including 4 international-level Masters of Sports and 46 Masters of Sports.

In 1978, the Republican Combined Swimming Training Center for Olympic preparation was opened at the Army Sports Club base of the Turkestan Military District and successfully operated until 1990.

At the international "Friendship-84" competition held in Moscow as an alternative to the XXIII Olympic Games in Los Angeles (USA), representatives of our republic achieved great success. Sergey Zabolotnov became the winner and record-holder in the 200-meter backstroke, while Larisa Belokon claimed first place in the 200-meter breaststroke (coach – V.S. Manin).

V.S. Manin – an Honored Coach of Uzbekistan and the former USSR, as well as an Honored Physical Education Worker of Uzbekistan – was a prize-winner in the 1981–1982 all-Union coaches' competition. The Honored Master of Sports L. Belokon was one of the strongest breaststroke swimmers, a silver medalist at the World Championship, a two-time winner of the World Universiade, and a coach of top-level athletes such as national champion E. Klementyev, national medalists L. Zubitskaya, Spartakiad medalists of the peoples of the USSR A. Volkova and T. Podmarev, and many others. He was also involved in training more than 120 Masters of Sports.

At the XXIV Olympic Games held in 1988 in Seoul, South Korea, Sergey Zabolotnov won a bronze medal in the 4x100 m medley relay.

A whole generation of dedicated and pioneering star coaches worked tirelessly to train high-level swimmers. Among the veterans of the swimming sport were: Honored Coach of Uzbekistan A.K. Smirnov; Honored Coaches of the USSR V.T. Bondarenko and V.S. Manin; Honored Coach of Uzbekistan A.E. Shpolyanskiy; A.A. Shvarsmann, P.M. Borodkin, V.P. Lyutiy, V.V. Petrov, T.F. Lenina, R.P. Manina, V.A. Yashnova, O.G. Olishkevich, and V.E. Ryabov.

Control Questions:

1. Who was the head of the swimming sports section in 1946?
2. In which year was the match between teams from Central Asian republics and Kazakhstan held in Tashkent?

3. In what year did Yuriy Frolov become the first swimmer from Uzbekistan to win the title of USSR champion?
4. How many meters long was the swimming pool built at the Fergana Pedagogical Institute in 1951?
5. When was the heated 50-meter outdoor swimming pool built in the city of Chirchik?
6. When was the Republican School of Higher Sports Mastery established?

1.3. Swimming in the Independent Republic of Uzbekistan

After our republic gained independence, athletes, especially swimmers, were provided with great opportunities. Our swimmers began to participate in international competitions as a separate team under the flag of our country.

In 1992, the Swimming Federation of Independent Uzbekistan was established, and Shokarim Abdullayevich Annazarov was elected its president.

In 1994, the Uzbekistan Swimming Federation was admitted as an equal member to the International Federation (FINA) and the Asian Swimming Association (AASF). In July of that year, Uzbekistan's swimming team, consisting of V. Kabanov, O. Svyetkovskiy, A. Agafonov, A. Galyautdinov, and S. Vecherkind, under the leadership of coach V.V. Petrov, participated for the first time in the history of Uzbekistan at the World Championship. In October, the swimming team participated in the XII Asian Games held in Hiroshima, Japan, for the first time, winning bronze medals in the 4x100m freestyle relay.

In 1995, the "Golden Water" swimming center of the Navoi Mining and Metallurgical Combine began its operations. The Uzbekistan team participated in the IX Asian and Oceania Championship in Colombo, Sri Lanka (from 2001, the Asian Championship in water sports for youth groups), winning 8 gold, 7 silver, and 5 bronze medals.

In 1996, Nikolay Ivanovich Kucherskiy, director of the Navoi Mining and Metallurgical Combine, was elected president of the Uzbekistan Swimming Federation.

In 1996, our team participated in the VI Asian Championship in Bangkok, Thailand, and won 1 gold, 1 silver, and 3 bronze medals.

A team of 8 swimmers (V. Kabanov, O. Svyetkovskiy, A. Galyautdinov, A. Agafonov, O. Pukhnyatyi, R. Nacheev, M. Shilov, S. Kleshko) participated in the XXVI Olympic Games held in Atlanta, USA.

In 2000, Uzbekistan's representative G.G. Bugakov was elected as a member of the Bureau of the Asian Swimming Association (AASF). That same year, a 9-member team from Uzbekistan (O. Svyetkovskiy, R. Nacheev, A. Agafonov, O. Pukhnyatyi, S. Voytsekovich, P. Vasilyev, S. Iskandrov, M. Bugakova, A. Koroleva) participated in the XXVII Sydney (Australia) Olympic Games.

In 2001, the Uzbekistan swimming team participated in the 1st Asian Championship in water sports for youth categories (in Hong Kong, China). The competition featured 837 swimmers from 22 countries that were members of AASF. From Uzbekistan, 28 athletes participated in four youth categories:

First category: 18 years and older (8 swimmers)

Second category: 15-17 years old (11 swimmers)

Third category: 13-14 years old (6 swimmers)

Fourth category: 12 years and younger (3 swimmers)

Our athletes participated in 57 individual events and 4 relays, with swimmers competing 94 times and making an additional 14 starts in the final rounds. Below are the champions and medalists (Table 1).

Table 1

	Full name	Year of Birth	Team	Distance	Result
Gold medals					
1.	Pukhnatiy Oleg	1975	"Oltin Suv" Navoi city	200 medley/stroke	2.08,72
2.	Iskandarova Saida	1980	RFSOPr	100 backstroke	1.08,07
3.	Galyautdinov Albert	1976	"Oltin Suv" Navoi city	100 backstroke	1.00,50
4.	Iskandarova Saida	1980	RFSOPr	50 backstroke	31,75
5.	Galyautdinov Albert	1976	"Oltin Suv" Navoi city	50 backstroke	28.08
6.	Agafonov Aleksandr	1975	"Oltin Suv" Navoi city	100 freestyle	53,02
7.	Iskandarova Saida	1980	RFSOPr	200 backstroke	2.27,04
8.	Galyautdinov Albert	1976	"Oltin Suv" Navoi city	200 backstroke	2.11,79
9.	Galyautdinov Albert	1976	"Oltin Suv" Navoi city	4x100 medley relay	3.59,73
	Shilov Maksim	1981			
	Pukhnatiy Oleg	1975			
	Agafonov Aleksandr	1975			
10.	Agafonov Aleksandr	1975	"Oltin Suv" Navoi city	4x100 medley relay	3.32,08
	Galyautdinov Albert	1976			
	Vasilyev Petr	1982			
	Pukhnatiy Oleg	1975			
Silver medals					
1.	Pukhnatiy Oleg	1975	"Oltin Suv" Navoi city	100 butterfly	57.31
2.	Sidorov Oleg	1983	ROZBYu Oltin suv	50 breaststroke	30,58
3.	Lyashko Oleg	1980	RFSOPr	50 butterfly	26.08
4.	Iskandarova Saida	1980	"Oltin Suv" Navoi city	50 backstroke	31,75
5.	Vasilyev Petr	1982	"Oltin Suv" Navoi city	200 freestyle	1.56,27

6.	Agafonov Aleksandr	1975	"Oltin Suv" Navoi city	50 freestyle	24,28
7.	Alekseev Mikhail	1983	Uzbekistan National Team	4x100 medley relay	4.05.22
	Sidorov Oleg	1983			
	Karpov Aleksey	1984			
	Moiseenko Denis	1983			
Bronze medals					
1.	Shilov Maksim	1081	"Oltin Suv" Navoi city	50 breaststroke	30.58
2.	Alekseev Mikhail	1983	MNO Toshkent	50 backstroke	28.96
3.	Sidorov Oleg	1983	ROZBYu Oltin suv	100 breaststroke	1.06.83
4.	Shilov Maksim	1981	"Oltin Suv" Navoi city	100 breaststroke	1.06.68
5.	Vasilyev Petr	1982	"Oltin Suv" Navoi city	100 freestyle	53.40
6.	Agafonov Aleksandr	1975	"Oltin Suv" Navoi city	50 butterfly	26.28

According to the results of the year 2001, the international master of sports Saida Iskandarova was ranked among the top 10 athletes of Uzbekistan. She was trained by A.Yu. Reshetova, an Honored Coach of Uzbekistan.

At the 2nd Asian Championships in aquatic sports, held in 2002 in the city of Zhuhai, China, 14 medals were won (see Table 2).

Table 2

Gold Medals					
	Full name	Year of Birth	Group	Distance	Result
1.	Soy Sergey	1986	2	100 m freestyle	53.82
Silver medals					
1.	Lyashko Oleg	1982	1	50 m butterfly	25.61
2.	Iskandarova Saida	1980	1	100m backstroke	1.08.92
3.	Iskandarova Saida	1980	1	50 m backstroke	31.92

4.	Iskandarova Saida	1980	1	200m backstroke	2.26.87
5.	Markovin Andrey	1985	2	200m breaststroke	2.23.20
Bronze medals					
1.	Bugakov Danil	1988	3	50 m backstroke	30.09
2.	Soy Sergey	1986	2	50 m freestyle	25.01
3.	Voytsekhovich Sergey	1982	1	200m breaststroke	2.24.18
4.	Tishchenko Anton	1986	2	50 m butterfly	26.12
5.	Lyashko Oleg	1982	1	100 m butterfly	56.41
6.	Tishchenko Anton	1986	2	4x100 freestyle relay	
	Anishchenko Sergey	1986			
	Primov Denis	1986			
	Soy Sergey	1986			
7.	Tishchenko Anton	1986	2	4x100m freestyle relay	3.40.79
	Anishchenko Sergey	1986			
	Primov Denis	1986			
	Soy Sergey	1986			
8.	Soy Sergey	1986	2	4x100m medley relay	4.04.73.
	Markovin Andrey	1985			
	Tishchenko Anton	1986			
	Anishchenko Sergey	1985			

In 2002, the 14th Asian Games were held in Busan (South Korea). A total of 296 swimmers from 31 countries, members of AASF (Asian Amateur Swimming Federation), participated in the swimming competitions.

Five swimmers represented Uzbekistan:

1. Agafonov A., 1975, XTSU, Oltin Suv, Navoi city, RFSOPr.
2. Vasilyev P., 1982, SU, Oltin Suv, Navoi city, RFSOPr.
3. Galyautdinov A., 1976, XTSU, Oltin Suv, Navoi city, RFSOPr.
4. Nachaev I., 1974, XTSU, Uzbekistan GTK, Tashkent city, RFSOPr.
5. Pukhnatiy O., 1975, XTSU, Oltin Suv, Navoi city, RFSOPr.

Ravil Nachaev became the champion of the 14th Asian Games in the 50 m freestyle (22.86 – Uzbekistan record). He also set a new Uzbekistan record in the 100 m butterfly with a time of 55.00 seconds.

In 2003, Ravil Nachaev was included in the Asian team to participate in the 1st Afro-Asian Games held in New Delhi, India.

In 2008, our athletes participated in the 29th Olympic Games held in Beijing (China) (see Table 3).

Table 3

№	Full name	Year of Birth	Distance	Result
1.	Shlemova Irina	1984	100 *m* freestyle	58,77
2.	Chizmadaashkin Pyotr	1989	100 *m* freestyle	51,83
3.	Nazarov Ibrohim	1988	200 *m* freestyle	1,56.27
4.	Bugakov Danil	1988	100 *m* backstroke	56,59
5.	Pankov Sergey	1988	200 *m* butterfly	2,03.51
6.	Demyanenko Ivan	1989	100 *m* breaststroke	1,05.14
7.	Bugakova Mariya	1985	50 *m* freestyle	29,73

The honor of our Republic's sports was defended by honored masters of sports S. Babanina, S. Zabolotnov, L. Kolesnikov, L. Belokon, national champion and record holder, master of sports N. Ustinova, national champions and record holders, international masters of sports S. Konov, T. Rilova, A. Volkova, L. Zubitskaya, T. Podmarev, D. Pankov, masters of sports O. Gribkova-Leonina, T. Potapova-Lyagina, R. Pavlova, E. Bender, M. Panina, I. Tishchenko, E. Ovchar, and others.

The following athletes became national champions and record holders of the Republic, champions of the Central Councils of the Komsomol and various institutions, and participants and winners of international competitions.

V. Manin, V. Medvedev, J. Bolotova, S. Vecherkin, E. Vavilova, E. Moshchenko, P. Pak, A. Talpekin, A. Gerasimov, A. Arkhipov, V. Tolstopyatova, L. Chertova, S. Garanin, F. Gaysin, I. Abdulova, E. Sergeyeva, S. Mozharovskaya, A. Mikhaylina, S. Aleksandrenok, M. Laryukhina, N. Komarova, Z. Sakhabutdinova, S. Khlunin, I. Krasavtsev, V. Stepachev, A. Rumyantsev, K. Denikaev, N. Grishin, A. Kiseleva, V. Mikhaylov, Yu. Svetkovskiy, V. Kabanov, A. Agafonov, O. Pukhnatiy, R. Nechayev, and others. Among them were representatives of the Uzbek nation — masters of sports S. Iskandarova, T. Ismoilova, A. Kholboyev, R. Vakhobov, K. Boltaboyev, and D. Igamberdiyev.

In terms of the place it holds in the Olympic Games program, modern competitive swimming ranks second (after athletics) among sports, with swimmers competing for 32 sets of medals.

Control Questions

1. In what year was the Uzbekistan Swimming Federation established?
2. Who was its president?
3. When did the Uzbekistan Swimming Federation become a member of the International Federation (FINA)?
4. When did it become a member of the Asian Swimming Association (AASF)?

1.4. Accidents in swimming lessons and their prevention

When addressing the urgent issues of teaching the population to swim en masse, serious attention must be paid to preventing accidents in the water. Regardless of one's swimming skills, before beginning training in natural water bodies, the following precautions must be taken:

Undergo a medical examination and obtain a doctor's permission before starting the swimming lesson.

Do not swim immediately after eating.

Do not enter the water when extremely overheated or chilled.

Avoid swimming far from the shore, especially before nightfall, and do not swim near moving ships, anchored vessels, motorboats, barges, etc.

Do not dive into waters of unknown depth or into shallow areas from the shore.

After swimming, avoid leaving ears wet.

If ear pain occurs due to water entering the ears, insert cotton soaked in petroleum jelly or any other oil into the ears before swimming.

Be cautious in water bodies or rivers where there are water plants, whirlpools, cold currents, and fast-flowing areas.

Swimming has a positive effect on people of all ages, but it is important to consider one's health status. Even if an illness seems minor, one should undergo a doctor's examination and follow their recommendations before engaging in swimming.

Swimming is not allowed for two hours after eating, as it places additional strain on the cardiovascular, respiratory, and other body systems. Many people enjoy combining sunbathing with swimming. However, excessive sun exposure and frequent, prolonged swimming can disrupt the function of the nervous system, cardiovascular system, and other body systems. After repeated overheating under the sun and cooling down in the water, symptoms such as lethargy, irritability, and other signs indicating disruption of normal body functions may appear. It is better to first swim, then sunbathe and warm up in the air for 3–5 minutes in the shade, and only after that go back into the water. Especially when the weather is cloudy and cool, it is not recommended to enter the water without first warming up the body.

Before swimming, it is advisable to perform a series of gymnastics exercises on the shore, preferably in a training suit, such as running and alternating walking with jumping.

Jumping into the water from unfamiliar water bodies, boats, docks, or other floating objects can lead to various unpleasant incidents and cause injuries. Especially in areas where there are stones, debris, iron pieces, and other similar objects at the bottom, diving headfirst into the water

(performing a head-first dive) can result in the most serious accidents. Before diving into the water, it is necessary to check that the bottom of the area is clean and that the depth is no less than 3 meters.

Some people consider swimming far from the shore and getting close to passing steamships as a great achievement. However, doing this often leads to accidents. It is usually easy to swim away from the shore with "new strength," but swimmers may venture quite far before realizing they are exhausted. After confirming the distance from the shore, the person, under the influence of nerves, begins to lose strength, and what initially feels like mild fatigue eventually turns into full exhaustion.

Reaching the shore in good health requires strong willpower. Moreover, a person who swims far from the shore or approaches a ship may also face the risk of getting caught under the ship. It is preferable to cover long distances along the shore. When the water temperature is 18 degrees or lower, swimming for long periods without proper preparation will cool the body down. In a cooled body, the work capacity of the organism and muscles decreases, making swimming more difficult. If a swimmer does not warm up in time after becoming cold and does not perform physical exercises, catching a cold is not unusual. After gradually increasing the time spent in the water and training the body, it becomes possible to swim for longer periods in cold water. After coming out of the water, it is better not to dry off immediately in the sun, as this leads to additional cooling of the body. However, this is much safer than leaving the ears wet. Even a light breeze on hot days can cause the ears to become irritated. Ears should always be dried carefully, and as soon as any pain arises, swimming exercises should be stopped, and medical attention should be sought.

In lakes and pools, there are often large amounts of reeds, aquatic plants, and various water vegetation, which, in addition to causing scratches, can restrict hand and leg movements. If it is not possible to quickly swim to clean water, it is necessary to lie on the back and maintain a horizontal body position while swimming toward the shore.

Cold currents are often found in lakes fed by underground springs, and as long as a swimmer maintains balance and control, these currents generally do not pose a serious threat to life. However, swimming in fast-

flowing rivers, near dams (especially where the riverbed has varying elevations), or waterfalls is extremely dangerous. In such conditions, even skilled swimmers can be overwhelmed by the force of the water and quickly swept into hazardous areas. It is important to choose wide, calm, and safe sections of the river for swimming. When tired, it is not recommended to cross a river directly, as the current will push the swimmer sideways, forcing them to expend a lot of energy. Instead, it is better to use the flow of the water and gradually move toward the shore. Swimming in the evening can be very beneficial. However, since it is much more difficult to judge distances and landmarks in the dark, strict safety precautions must be followed. Therefore, swimming is only recommended in familiar, tested, and near-shore areas. As mentioned above, water safety can only be ensured by adhering to a number of precautionary measures.

1.4.1. Muscle cramps while swimming.

When spending a long time in the water or making sudden movements with the legs, swimmers may experience involuntary muscle contractions, which are painful and lead to a loss of coordination — a condition known as muscle cramping.

When a cramp occurs, the swimmer should first stop swimming or change their swimming style. To relieve the cramping muscle, it is necessary to massage and stretch the affected area, applying pressure to properly align the relevant joint. To massage the muscle effectively, one should lie down or stay in a vertical resting position. To overcome muscle cramps, experts recommend performing simple movements, such as pulling the heel toward the buttocks or drawing the toes toward oneself — these actions help the strained muscles to relax (see Figure 3.1 for thigh cramps, and Figure j for calf cramps). (See also Figure 12.)

Methods of Resting in Water:

When there is a need to rest in the water due to injury, muscle cramps, vision impairment, or similar situations, it is important to remain afloat with minimal effort.

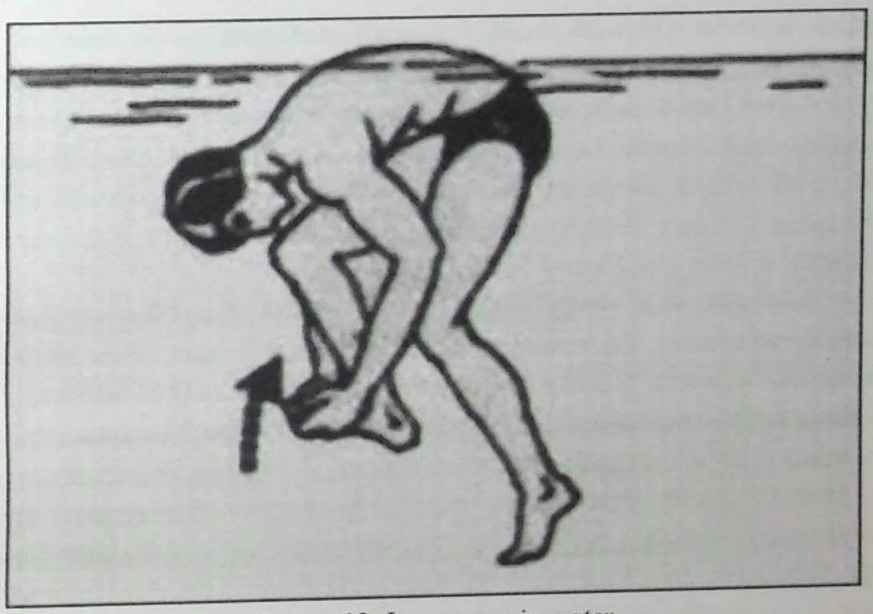

Figure 12. Leg cramp in water.

Floating in Water

This exercise does not pose difficulty for individuals with positive buoyancy or good balance. However, for many people, lying on the back in water can lead to loss of balance — the legs tend to sink. The following techniques can help improve buoyancy and balance in the water: stretching the arms to the sides, lowering the head slightly, holding the breath, placing the hands behind the head, etc. To keep the body afloat, gentle paddling movements with the hands can be used. In the past century, this technique was called "sculling" and was considered an independent type of swimming.

If the water is calm, it is best to rest by lying on the back. To maintain a horizontal body position, the arms should be extended above the head and the legs stretched outward to both sides. It is also possible to rest in a vertical position, but in this method the neck muscles tire quickly, as the head must be tilted back during breathing.

E.D. Konovalov (1994) emphasized the importance of taking rest breaks during recreational swimming. The method involves lying on the

back in the water with arms stretched or positioned appropriately, taking a deep breath, holding it for 5–10 seconds, and then exhaling slowly.

The Fred Lanou method of staying in water for a long time may also be beneficial, as it helps conserve physical energy and creates opportunities for rest. Unfortunately, this proposed resting method during competitive swimming is rarely described in instructional literature, but it is very important to learn (see Figures 8a–d).

Relaxation in a vertical position in water and alternating minimal support movements for resting. This method (see Figure 8) is quite convenient for resting in water. The following sequence should be followed: 1) Keep the head above the water — inhale; 2) Lower the head under the water and perform light hand movements to prevent sinking deeper; 3) Raise the arms and stretch the legs in preparation for paddling movements; 4) Paddle downward with the hands and perform scissor-like kicks with the legs; 5) Bring the head back above the water and inhale. The optimal rhythm for this resting method is to raise the head above the water 6–8 times per minute. Although the method seems simple, maintaining a vertical position in the water for a long time is quite challenging because the breathing rhythm becomes disrupted and pain may develop in the neck area. The record for the longest duration of vertical swimming is 26 hours and belongs to P. Venega.

1.4.2. Prevention of Accidents in Water

One of the main causes of drowning is the violation of water safety rules and failure to follow safety precautions during swimming and bathing activities.

The following rules must be well understood and strictly followed:

- only individuals who have received medical clearance may engage in swimming. Those who swim regularly must also undergo periodic medical examinations.

- swimming and bathing are permitted only in designated areas such as pools, training beaches, water stations, and other places that meet safety and hygiene standards (see Figure 13).

- bathing is allowed only in clean water with a temperature not lower than 15°C. The duration of water activities can range from 5 to 25 minutes.

- those who cannot swim are allowed to bathe only in specially designated pools with depths of 0.6–0.9 meters and under the supervision of skilled swimmers. All exercises in water, including the initial attempts at swimming, must be performed close to the shore.

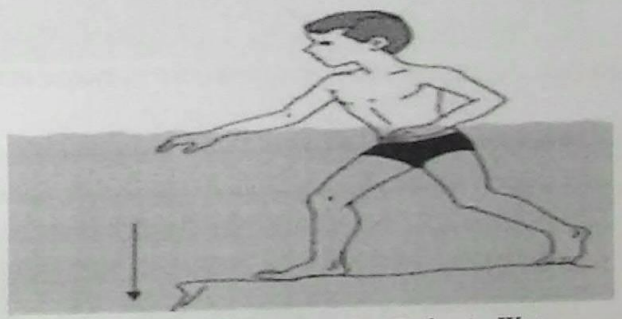

Figure 13. Following Safety Rules in Water.

- entering and exiting the water is only permitted with the instructor's permission.

- only individuals who can swim are allowed to learn diving and jumping into the water.

The following are strictly prohibited:

- swimming close to boats, both motorized and non-motorized (see Figure 14);

- swimming in the middle of a body of water or attempting to cross rivers by swimming.

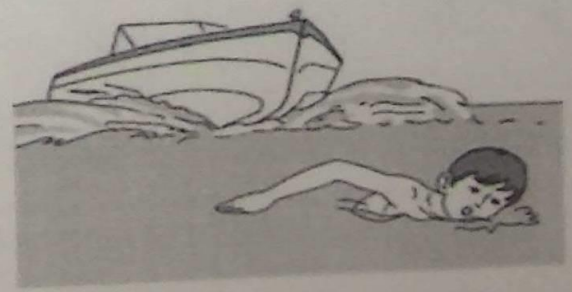

Figure 14. Following Safety Rules When Swimming in Rivers and Lakes.

- playing pranks and falsely calling for help by making noise;
- climbing on warning signs, such as buoys;
- polluting the water and shoreline;
- swimming far away using boards, logs, inner tubes, inflatable mattresses, and similar items;

- jumping into the water from non-designated structures, diving in places where the depth and bottom conditions are unknown.

If an accident occurs in the water, one must remain calm and act quickly and decisively.

People often fear muscle cramps. These typically occur in individuals without adequate swimming training and rarely affect experienced swimmers. If you experience a calf muscle cramp, pull your foot toward yourself and massage the affected muscle (see Figure 15).

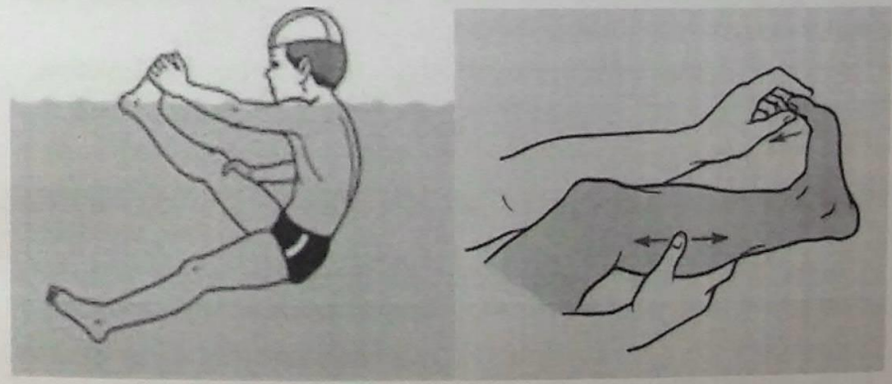

Figure 15. Stretching the leg during a muscle cramp in water

Regardless, remain calm when this situation occurs. Not all muscles in the body cramp at once. If only one does, the person does not lose the ability to swim. Try to lie on your back and gently massage the affected muscle to relax it. If this doesn't help, swim toward the shore, where it will be easier to massage the muscle. Calf muscles are most commonly affected, but if you can swim, this usually won't stop you from reaching the shore.

If it becomes necessary to cross a part of the water body by boat or raft, a rescue team should be formed from the strongest swimmers. Rescue equipment such as inflatable rubber rings, poles, logs, ropes 10–15 meters long, and other necessary items should be prepared in advance. In all cases, strict discipline must be maintained. However, accidents can still happen. Sometimes the boat you're in might capsize due to carelessness or take on too much water. This is not necessarily a cause for alarm—the boat will not immediately sink. In such cases, first rescue the people, then the swimming aids (especially if they are specially made or valuable), and finally the equipment. If it is not possible to pull the people who have fallen into the water back onto the boat or raft (for example, if the boat is overloaded), you can throw them a rope or pole and pull them to shore. In some cases, your boat may capsize or fill with water. In such a situation, it's important to reach safety not individually but as a group—this allows help to be given to those who are weakened or injured. If the boat hasn't sunk, don't abandon it; instead, hold onto it and signal for help.

Of course, it is impossible to provide advice for every possible situation, but the most important thing is to remain cautious in the water and not to panic.

Raising public awareness about rules of conduct in the water is a crucial aspect of drowning prevention. In areas where many people swim or engage in swimming activities, it is necessary to use warning signs, colorful and clear information boards, as well as films explaining water safety rules and rescue techniques. It is also important to hold discussions about rescue procedures and to organize practical training sessions.

Preventing accidents in the water and rescuing drowning individuals is one of the key professional responsibilities of physical education teachers and coaches. Organizing competitions in water rescue is highly valuable for the development and promotion of rescue skills. Since 1971, the International Federation of Rescue and Applied Sports has held championships in lifesaving, which include the following exercises: bringing a motorboat to a distance of 1000 meters in response to a "rescue alarm, swimming 50 meters to perform a rescue; rowing a rescue boat for 1000 meters and retrieving a mannequin from the water; swimming 200

meters freestyle while overcoming obstacles; accurately throwing a rescue ring to a distance.

To prevent drowning, it is essential to know how to use the *rescue equipment* that must be available at public swimming areas or rescue stations near crossings. These include life rings, buoys, poles, rescue boards, life vests, belts, flotation jackets, vests, and so on (Figure 16).

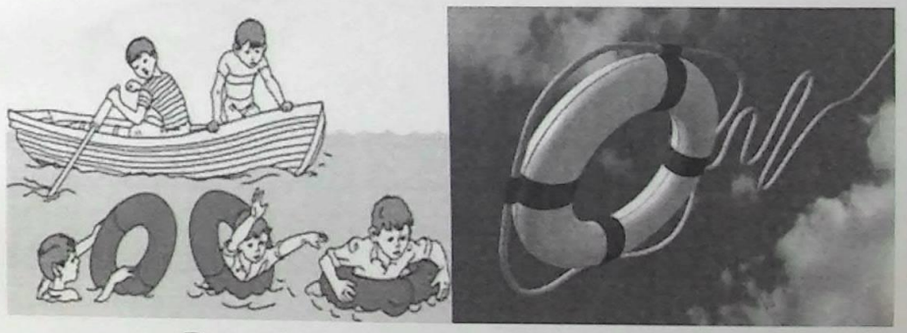

Figure 16. Rescue equipment for drowning persons

Rescue Ring (with an outer diameter of approximately 80 cm and an inner diameter of about 40 cm) consists of a canvas cover filled with compressed cork or foam plastic. At four points on the outer surface of the ring, loops made of rope are securely fastened using canvas straps. One half of the ring is painted white, and the other half is painted red. Rescue rings make it possible to assist a person in the water from a distance of 15 meters. When throwing the ring from shore or a boat, it should be held with the right hand and thrown two or three arm-lengths in a horizontal direction so that it lands near the drowning person, allowing them to grab and hold onto it while waiting for help.

The best way to use the ring is as follows: swim up to it, press one side of it so it stands vertically, insert your head and arms into it, lower your arms, and wait for help.

If it is not possible to directly assist the person in distress, a floating object should be thrown to them, or a stick or pole extended for them to

grab. In addition to such improvised items, there are also special throwable devices (Figure 17).

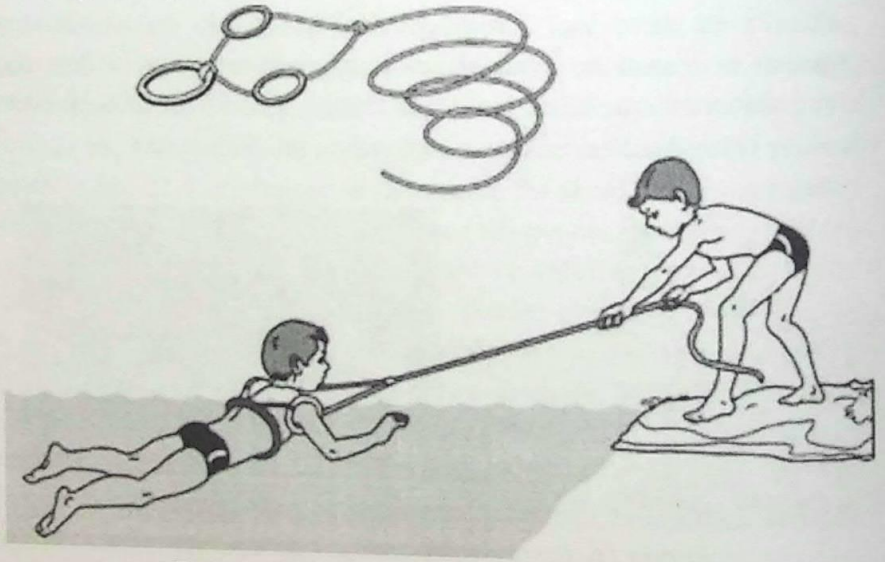

Figure 17. Proper use of rescue equipment

The most widely used of these are the "Alexandrov rescue ring" and the "Suslov rescue balls."

The rope of the Alexandrov rescue ring is 0.5–0.7 cm thick and can be up to 30 meters long. One end has two small buoys (floats) made of brightly colored cork or foam plastic, and a ring with a soft-shell weight (a sandbag). This end is thrown to the person being rescued. The rescuer passes their hand through the ring on the other end.

Before throwing, the rope is coiled around the rescuer's elbow, with the coil held in the free hand or placed on the ground, deck, etc. Several of the weighted rings are held in the other hand. After making several circular motions, the weighted ring is thrown forward and upward toward the person in need. After the ring is thrown, the remaining rings, either held in the free hand or lying on the ground, begin to uncoil.

The Alexandrov ring should be thrown in such a way that the weight lands in the water behind the person being rescued, after which the rope is gently pulled. When the ring with the floats reaches the person in the

water, they can grab onto it. Then, the rope is pulled back toward the shore (see Figure 18).

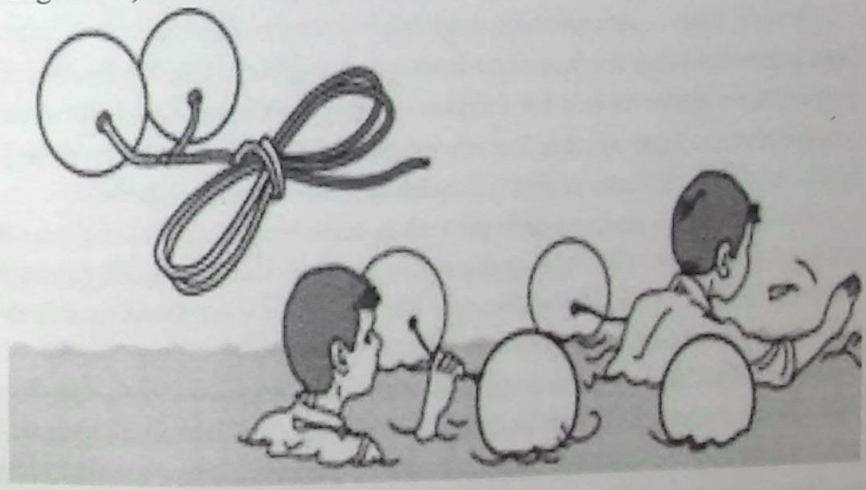

Figure 18. Use of the rescue ring.

"Suslov rescue balls" are spheres made of cork or foam plastic with a diameter of 25–30 cm. They are covered with thick fabric, with one ball painted white and the other red. The balls are connected to each other with a rope approximately 50 cm long. A thin but strong strap about 25 meters long is attached to the middle of the rope. The person in distress lies on the connecting rope in such a way that the rope passes under their chest and under their armpits. This allows the balls to rest behind the person and help keep them afloat on the water. The "Suslov rescue balls" are thrown in the same manner as the "Alexandrov ring."

To pull a drowning person out of the water or from between ice, a *rescue hook* is used. It consists of a rod with an iron hook attached at the end, which is galvanized (coated with zinc). The hook is secured with cork or foam plastic balls, which decrease in size toward the end of the hook. These balls increase the buoyancy of the hook and help protect the rescued person from injury. To quickly assist a drowning person—especially in swimming pools—simple rods 3–6 meters long made of wood or duralumin

are widely used. Plastic pipes can also be used. The rod is extended to the drowning person, and once they grab it, they are pulled toward the shore.

Rescue vests, belts, jackets, and life vests are classified as personal flotation devices that are worn in advance (see Figure 3.12). Rescue jackets and vests are made from thick sailcloth or canvas material and filled with crushed cork or foam plastic. The thickness of the cork or foam layer ranges from 7 to 15 cm. There are also inflatable rescue jackets available.

Rescue jackets or vests are worn when there is a risk of falling into the water (for example, during a strong storm on a boat or in case of damage). They are mandatory safety equipment during training exercises conducted with motorboats and sailboats.

Vests and jackets help keep a person's head above water, which is particularly important when assisting people who cannot swim. For this purpose, inflatable rescue jackets are often equipped with a special collar that keeps the person's head in a vertical position above the water.

Rescue belts, like jackets and vests, are made from sailcloth, canvas, or hemp fabric and filled with crushed cork or foam plastic. The belt thickness is 20–25 cm. Compact inflatable rubber rescue belts are also used. These belts contain specific chemical compounds that, when a person falls into the water, release gaseous substances, helping keep the person afloat on the water's surface. Rescue belts are worn when there is a risk of falling into water or while in the water. To wear it in water, the belt should be spread out, the arms passed through it, and then it should be pulled down to cover the abdomen and chest.

Chest vests that wrap around the neck and chest area provide the best conditions for swimming, as they keep the person's face above the water surface, even if they are unconscious, preventing them from accidentally swallowing water.

Rescue by motorized or non-motorized boat is significantly more effective than swimming to the drowning person, as it allows for quicker approach. When nearing the drowning person, it is very important not to hit them with the side of the boat or an oar. It is best to bring the person into the boat from the stern (rear), as this prevents the boat from tipping over. In the case of a motorboat, it's better to approach from the side, to avoid the

risk of injuring the person with the propeller. If the rescuer is in a single-person boat or a small improvised flotation device, the most suitable method is to tow the drowning person to shore without pulling them into the boat.

Staying safe on ice: When temperatures drop, bodies of water become covered with ice. To walk safely on it, the ice must reach a certain thickness. It is known that for a person to walk on the ice one by one, the ice must be at least 5 cm thick. While moving on the ice, test its strength using a stick, but never kick it with your foot—you may fall through. Two people can walk on ice that is at least 7 cm thick, but they must keep a distance of 5–7 meters between them. For skiers, it is not recommended to travel alone across frozen bodies of water. It is safer to follow a marked ski trail or a cleared path. Skiers should maintain a 5–6 meter distance from each other. Before stepping onto ice, it is important to loosen ski straps, remove pole loops from wrists, and drop one shoulder of your backpack strap to be ready to discard it quickly if necessary.

When going ice fishing, take an inflatable ring with you — it can serve as a rescue device. In autumn and spring, when the ice becomes thin, the ring provides additional support under the person. When drilling holes in the ice, pay attention to the distance between them — if they are too close together, a large area of ice may collapse.

Sometimes it happens that, before help arrives, the victim of an accident must move independently. If the ice starts to crack under their feet, they should lie down gently, spread out their arms and legs, and slowly crawl away from the danger zone without panic.

If you fall into water through an ice hole, do not thrash your limbs. Instead, lean on the edge of the ice with your chest, stretch your arms forward, and try to pull yourself up onto the thicker ice.

Providing assistance to someone who has fallen through the ice is very difficult, because getting close to them is risky. For this, tools such as sleds with ski-like supports, floating sleds, rescue ladders, planks, pieces of plywood, etc., can be used. Rescuers either push these aids toward the victim or use them to move closer. If it is not possible to approach the person who fell through, a rope is thrown to them. If the person has gone under the ice, a diver must enter the water to follow them. However, before diving, one

end of a marked rope must be tied to the diver, and the other end given to another rescuer. If the drowning person has not yet sunk into a deep hole, a rescue pole can be used.

When assisting a person who has fallen through the ice, if there is a flat object on the ice such as a ladder, board, or plank, the rescuer should move toward the victim while supporting themselves with the object (19th image). Once they have approached at a safe distance, the rescuer should extend a ladder, belt, pole, rope, or a similar object. At the same time, the rescuer should calm the victim and explain how to use the item that has been provided.

Various floating objects can be used as rescue devices, including boards, floats, reed bundles, or items that can be inflated, such as clothing, empty barrels, cans, automobile tires, logs, or mattresses. Additionally, poles, hooks, ladders, oars, skis, ropes, wires, belts, and scarves can also be employed as rescue tools (Figure 3.13).

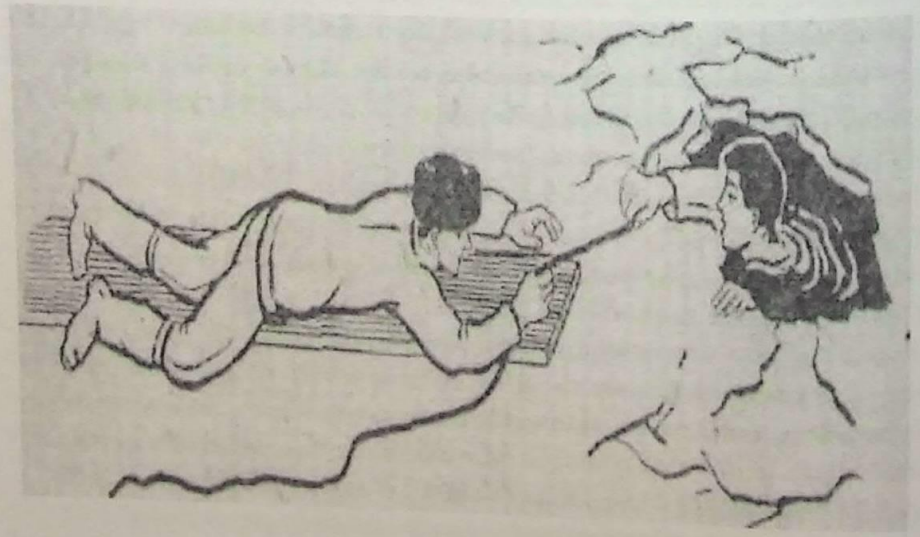

Figure 19. Rescue rules when the ice breaks.

1.4.3. First aid for drowning.

To provide qualified first aid to a drowning person, it is necessary to know how and when the drowning incident occurred and to be able to assess the person's condition. Based on their condition, different first aid measures should be applied.

First and foremost, it is essential to distinguish between unconsciousness, clinical death, and biological death. In the case of unconsciousness, the person loses awareness, but the cardiovascular and respiratory systems, although significantly weakened, still function. During clinical death, the pupils dilate, breathing stops or becomes severely disrupted, and no pulse is detected in the carotid artery. Clinical death lasts for about 5–6 minutes. During this period, it is possible to revive the person through a series of actions aimed at restoring vital functions. After clinical death, biological death occurs. Its obvious signs include a drop in body temperature, the appearance of livor mortis (postmortem spots), and the onset of rigor mortis.

The condition of a drowning person depends on the nature of the drowning incident.

There are several types of drowning, with the two main types being:

1. White asphyxia (suffocation). Its milder forms are referred to as pseudo-drowning, in which little or no water enters the respiratory tract. Due to an acute reflex spasm, the vocal cords block the entrance to the larynx and trachea, preventing water from reaching the lungs.

In this condition, heart activity stops much later (as some air remains in the lungs, and the blood does not undergo the serious changes typical of real drowning), so there is relatively more time and opportunity to revive the person. The external appearance of such drowning victims is distinctive. They are called "white" drowning victims because their skin is pale and icy cold. In white asphyxia, there are no dangerous consequences of water entering the lungs, meaning it is easier to resuscitate the person.

2. Blue asphyxia: Breathing stops as a result of water entering the lungs.

When a person drowns, it is crucial to provide help immediately. In cases of drowning in fresh water, the water quickly passes through the alveolar walls and enters the bloodstream. As a result, the chemical

composition of the blood changes drastically — it becomes diluted, red blood cells (erythrocytes) break down, and can no longer carry oxygen. This leads to acute oxygen deficiency, known as hypoxia.

Sea water, which is similar in composition to blood plasma but more saturated with salts, does not pass through the alveolar walls. Instead, seawater that enters the lungs forces plasma out of the bloodstream and into the alveolar spaces. The water, mixed with plasma and residual air, forms foam, and pulmonary edema (fluid accumulation in the lungs) begins. This damages the alveolar walls and disrupts both blood circulation and gas exchange. All of this happens within a matter of seconds. Soon after, the heart stops functioning, and if aid is not provided within 4–5 minutes, the person may die. In such drowning cases, the veins become severely swollen, and foam comes out of the mouth. Due to the accumulation of carbon dioxide in the blood, the skin — especially around the ears, fingertips, and lips — takes on a bluish-purple color. That's why these types of drowning victims are referred to as "blue" drownings.

In addition to the main types, there are also mixed types of drowning, which do not exhibit such clearly defined symptoms.

Reviving a drowning person is based on applying three essential procedures:

1. Ensuring the airways are clear.
2. Performing artificial respiration.
3. Conducting external chest compressions (cardiac massage)

Ensuring airway clearance: Usually, the airways of a drowning person are filled with water. As mentioned earlier, in "blue" drowning cases, water also fills the lungs. In some cases, the mouth and nose may be filled with aquatic plants, sand, mucus, vomit, and other substances. Sometimes, involuntary contraction of the jaw muscles occurs, making it difficult to open the person's mouth. Often, due to the relaxation of the neck muscles, the tongue falls back and blocks the airway. The victim's clothing can also interfere with breathing.

It is recommended to open and clean the person's mouth and remove water simultaneously. The rescuer should kneel with one knee on the ground, placing the victim across their thigh so that the chest rests on the

rescuer's thigh and the body and head hang downward. Then, the rescuer should pass their hands under the victim's armpits and open the mouth. To do this, they place their thumbs on the upper edge of the lower jaw on both sides and press on the chin with the rest of their fingers, moving the lower jaw downward and slightly forward (see Figure 20).

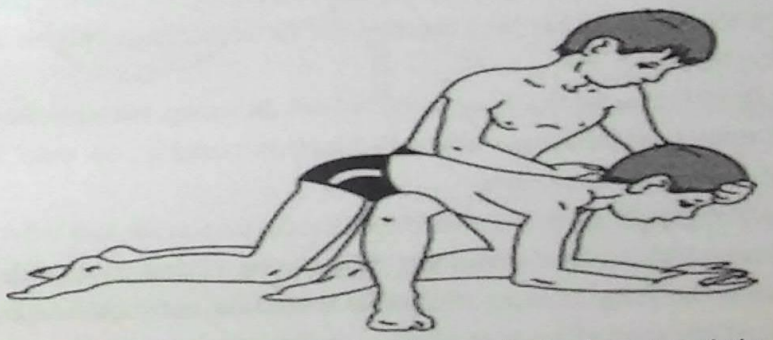

Figure 20. Removing water from the mouth of a drowning victim

If necessary, the mouth is cleaned by wrapping a handkerchief around the fingers. Then, the process of removing water from the lungs begins—this is done by pressing on the lower part of the chest or by striking the person on the back (see Figure 21).

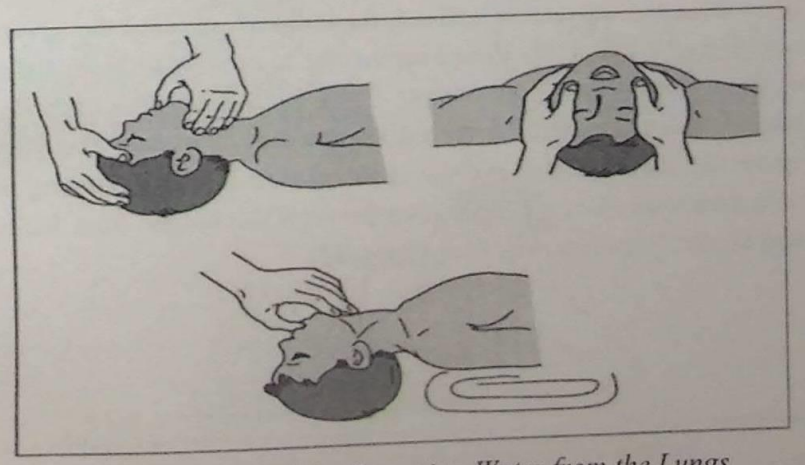

Figure 21. Method for Removing Water from the Lungs

If the drowning person is heavy and laying them over the knee is difficult, water can be removed from the lungs using the following method: The victim is laid on the ground face down, with their head turned to one side. Then, their pelvic area is lifted, and the mouth is observed to allow water to drain freely.

Since it is generally not possible to remove all the water from the lungs, once the major portion has been expelled, the focus should quickly shift to restoring breathing.

It should be noted that in cases of "white" drowning, attempts should not be made to remove water from the lungs, as typically, no water has entered the lungs in these cases.

Artificial respiration

It is possible to restore breathing in drowning victims by artificially ventilating the lungs. Among the methods that do not require special equipment, the most effective is blowing air from the rescuer's lungs into the victim's lungs, which can be done using the "mouth-to-mouth" or "mouth-to-nose" method. This technique is very simple: there is no need to hold the victim's tongue, and it ensures that 1,000–2,000 ml of warm air enters the lungs. For this, the victim should preferably be laid on their back. Clothes that interfere with breathing should have their buttons undone or be torn open. It's better not to waste time fully removing clothing.

When the neck muscles are relaxed, the tongue may block the airway. However, tilting the head backward moves the lower jaw forward, lifting the tongue root and opening the airway.

During "mouth-to-mouth" artificial respiration, the rescuer places one hand under the victim's neck and the other on their forehead, holding the head in a backward-tilted position. This prevents the tongue from falling back and obstructing the airway (see Figure 22).

Figure 22. Artificial respiration methods

After that, the rescuer takes a deep breath and, either directly or through a thin cloth, presses their mouth tightly against the mouth of the unconscious person and blows air in (Figure 23). At the same time, to prevent the air from escaping through the nose, the rescuer must pinch the victim's nostrils by pressing on their forehead. The injured person's breathing is very weak — this happens due to the elasticity of the rib cage and the collapse (spad) of the lungs.

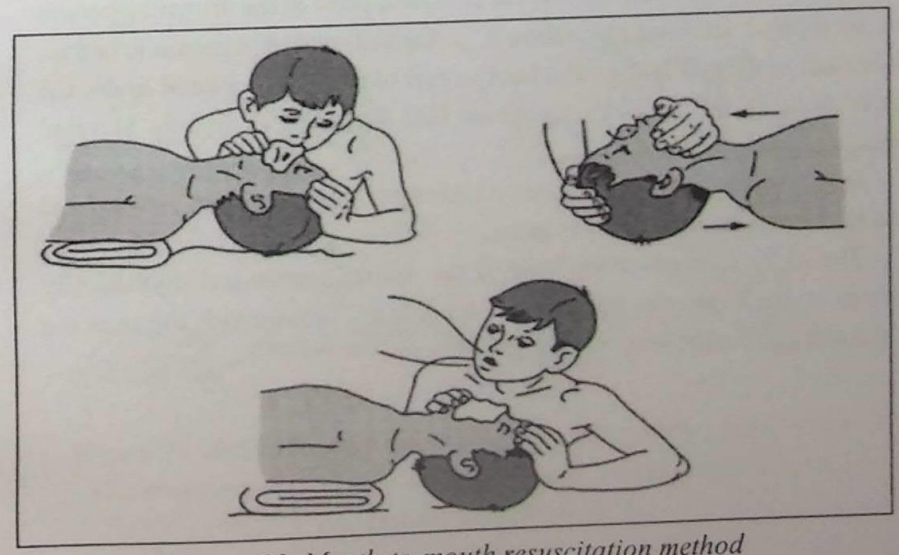

Figure 23. Mouth-to-mouth resuscitation method

Mouth-to-mouth" artificial respiration method

Blows should be delivered at a rate of 12 times per minute for adults, and 15–18 times per minute for children. The volume of air to be blown should be between 1000 and 2000 ml. The optimal amount is determined by the normal expansion of the injured person's chest. It is especially important to strictly control the volume of air blown into the lungs of young children.

If, during the breaths, the victim's chest does not expand, it means that the air is not reaching the lungs. If the stomach becomes distended, it indicates that the air is entering the stomach instead. In such cases, the airway should be rechecked for obstructions or the artificial respiration method should be switched to the "mouth-to-nose" technique. In this method, while air is blown into the nose, the victim's mouth is kept closed, and opened during pauses.

In some cases, while performing artificial respiration, the unconscious person may begin vomiting, which can interfere with the air being blown in.

Those learning to swim should also be familiar with other methods of artificial respiration, as they may be used depending on the condition of the injured person.

Silvester-Brosch Method – If the arms and chest of the drowning person are not injured, artificial respiration is performed while the person is laid on their back or side. If laid on the back, a roll of clothing is placed under the lower edge of the shoulder blades so that the chest is slightly elevated compared to the head and legs.

In this method, the injured person's tongue must be pulled forward and tied to the chin using a scarf or gauze.

The rescuer stands at the head of the injured person and rhythmically presses on the lower ribs using the victim's arms, then spreads the arms out to the sides and lifts them up (Figure 24).

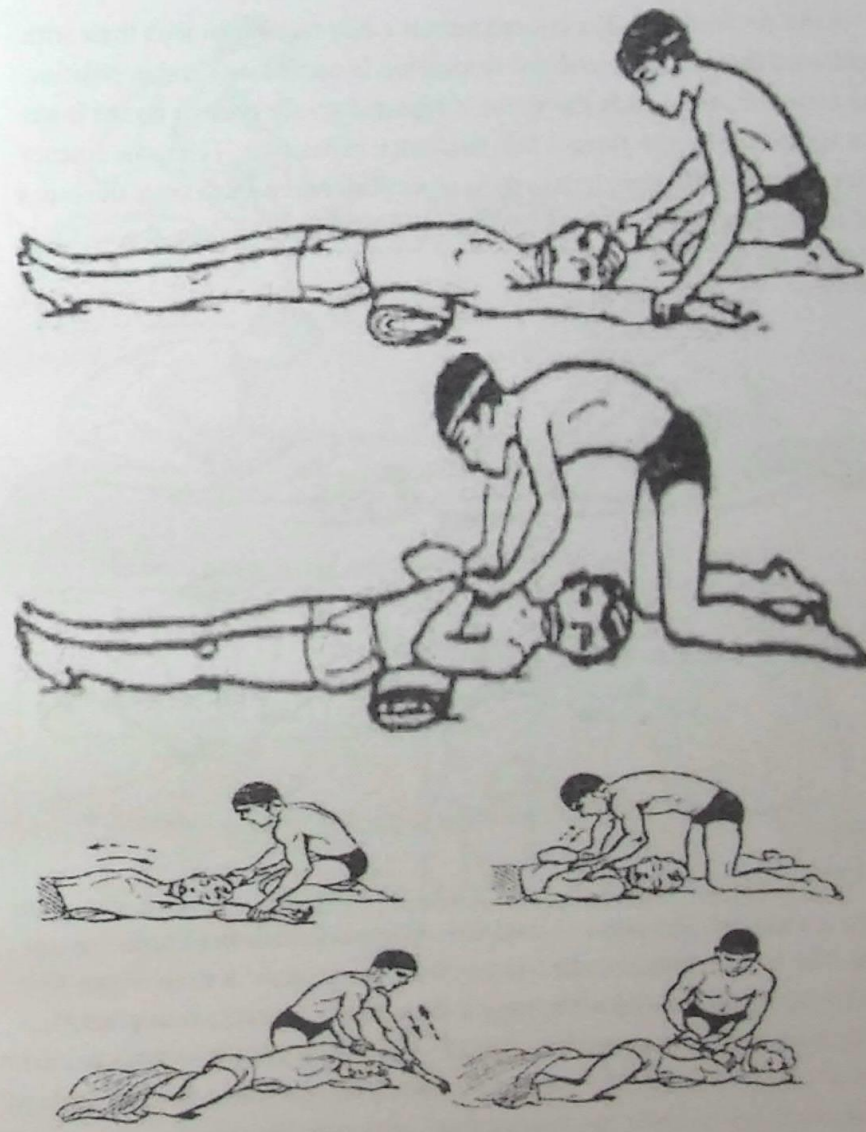

Figure 24. Artificial respiration using the Silvester-Brosch method The drowning person is laid on their back or side, and artificial respiration is performed.

Schaefer Method – The injured person is laid face down with their arms positioned forward, and artificial respiration is carried out in this position. The rescuer kneels beside the victim's hips and gently presses on the lower ribs while counting to three – this facilitates exhalation. Then, the rescuer stops pressing while counting to three again – allowing air to enter the lungs and aiding inhalation. This method is especially useful when the victim's arms are injured (Figure 25).

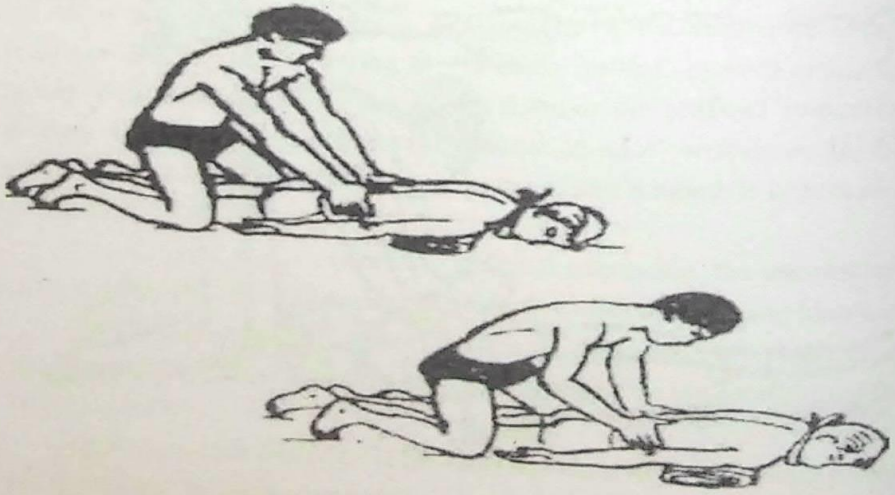

Figure 25. Artificial respiration using the Schaefer method

The Kallistov method is used when the drowning person's arms and chest are injured. The person is laid face down, with their head turned to one side. The rescuer kneels at the head of the victim, passes a strap or two tied towels under the shoulder blades and through the armpits, then places the ends over their own shoulders (Figure 26). While counting to three, the rescuer leans backward, expanding the victim's chest and allowing inhalation. Then, while counting to three again, the rescuer leans forward, lowering the victim's head and enabling exhalation.

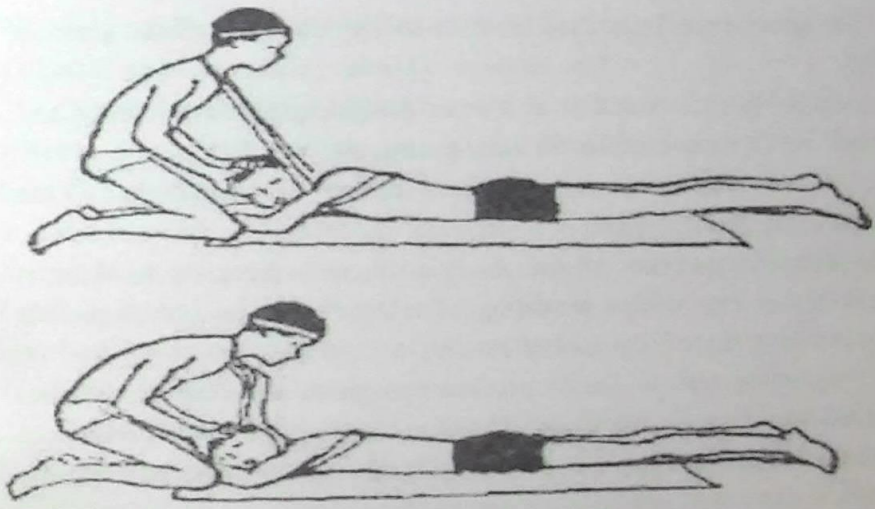

Figure 26. Artificial respiration using the callistov method.

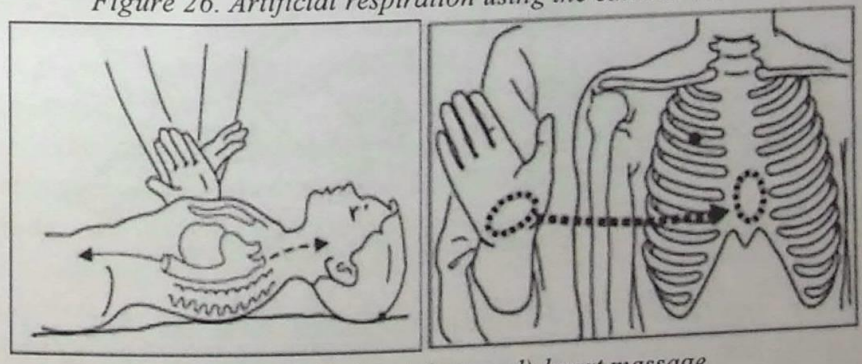

Figure 27. Indirect (external) heart massage

Heart massage is performed with sharp compressions to the chest at a rate of at least 60 times per minute. The force of the pressure should cause the chest to compress toward the spine by about 3–5 cm (Figure 27).

During indirect massage, the position where the hands touch the sternum is important. Pay close attention to the victim's pulse.

If there is no detectable pulse in the carotid (neck) arteries and the pupils are dilated, begin closed chest heart massage immediately:

-place the palms of your hands on the lower part of the sternum, one hand on top of the other, at a right angle;

-interlock your fingers and lift them so they do not touch the victim's chest;

-with both hands and your elbows straight, press rhythmically and sharply on the sternum about 60 times per minute;

-after each compression, immediately release the pressure, but do not lift your hands off the chest;

-use the upper part of your body to increase the pressure. This is especially necessary when providing aid to elderly people, as their chest is not as firm as that of younger individuals;

-the compressions should be firm enough to be effective, but not excessively forceful, as this could injure the sternum, ribs, or internal organs. For children up to 10–11 years old, the heart is massaged with one hand, at a rate of 60–80 times per minute (Figure 28).

Figure 28. Partner-assisted rescue of a drowning person

-chest compressions and artificial respiration must be performed alternately: after every 15 chest compressions, 3 or 4 breaths should be given. Chest compressions should be paused during artificial ventilation, otherwise the air will not reach the lungs.

If someone comes to help, you can focus on giving artificial respiration while your assistant performs chest compressions.

Artificial respiration and heart massage must continue without interruption until a doctor arrives or the victim begins to breathe independently. As soon as signs of natural breathing appear, artificial respiration should be stopped. If the victim's pupils begin to constrict, skin color returns, and a pulse is felt in the carotid or femoral arteries during chest compressions, resuscitation is considered successful. Once normal

breathing is fully restored, the victim should be given warm tea, wrapped in a blanket, and immediately taken to a medical facility.

The victim should only be transported after heart function has been restored. During transport, the person must be laid on their side with their head facing downward. All rescued individuals must be taken to a hospital, as there is a risk of developing secondary drowning. This condition may present as acute respiratory distress, chest pain, coughing, shortness of breath, lack of oxygen, blood in the sputum, restlessness, and rapid heartbeat. There is also a danger of pulmonary edema developing within 15–72 hours after the victim has been rescued.

Resuscitation efforts should only be stopped after clear signs of death have appeared in the drowning person.

General description of methods for organizing and teaching activities.

Preparing children for activities and their hygienic education.

General physical preparation of swimmers is an important part of training.

The exercises performed during training develop strength, speed, endurance, and agility, enhance the functional readiness of the athlete's body, and increase the emotional impact of the sessions, while also contributing to active rest. To ensure the harmonious development of each physical quality (strength, speed, flexibility, agility, and endurance), appropriate exercises can be selected in the water. However, these exercises are generally less effective than those performed specifically for each individual goal. Moreover, frequent use of swimming pools — which are often highly humid and cleaned with chlorine — can sometimes negatively affect the swimmer's health. Therefore, swimming training should be combined with year-round general physical training on land in fresh air (such as in forests, parks, stadiums, or sports grounds).

The improvement of sports performance is determined by numerous factors. One of the main factors is the regular increase in training loads. Practice has shown that if a swimmer performs part of their exercises on land and the other part in water, the overall volume of training loads

increases significantly. Therefore, the general physical preparation of a swimmer has become a means to substantially increase training intensity.

Performing water exercises separately can make training monotonous and boring. To diversify the training process, it is necessary to include physical exercises on land borrowed from other sports. At certain stages of physical training, it is beneficial for swimmers to take breaks from water-based activities. However, to avoid reducing the swimmers' fitness levels, these breaks should be used for active rest by performing land-based exercises.

A high level of physical development is essential for athletes of any specialization. However, each sport has its own specific requirements. In the process of training swimmers, based on the tasks of general and specific physical preparation set by the coach, all exercises used can be divided into **two categories:**

- The main load falls on the organs and systems. This refers to general preparation and auxiliary exercises (GPP – General Physical Preparation);
- Exercises aimed at developing the functional capabilities of those organs and systems that determine swimming performance. This includes the second group of special exercises (SPP – Special Physical Preparation), which involves both general and special physical training.

Let's examine the essence and purpose of these exercises. The content of **general physical preparation** is defined not only based on the tasks of sports activity but also in alignment with the general objectives of physical education. These exercises stimulate the development of swimmers, helping to reduce imbalances in the development of various organs and systems within the body.

The main exercises included in **special physical preparation** training involve swimming using a chosen technique with the use of distance, interval, repetition, and variable methods. These exercises not only ensure the swimmer's functional readiness but also play a decisive role in technical, tactical, and psychological preparation. Swimming has the greatest effect on the cardiovascular system, particularly the heart muscles. On the other hand, skeletal muscles experience less stress, which means less stimulus for their

development—although their activity (especially of the shoulder girdle muscles) generates propulsion and ultimately determines the swimmer's performance. Therefore, swimming, even with fully coordinated movements, cannot alone provide the necessary development of muscle functional capacity required to reach high levels in sport. In addition, to achieve good results, high mobility in many joints (ankles, shoulders, etc.) is necessary. Swimming exercises do not effectively develop this mobility. All of this requires the inclusion of special preparatory exercises alongside swimming training.

Special physical training exercises included in **specialized preparation** are aimed at developing the following:

Priority areas of activity and main objectives of the program:

- organizing the long-term training of high-level swimmers;
- selecting promising athletes to prepare a reserve for national teams;
- creating conditions for children and adolescents to engage in swimming;
- developing personal motivation to fully realize athletic abilities;
- attracting individuals who regularly engage in physical education and sports, promoting a healthy lifestyle;
- involving the maximum possible number of children and adolescents in systematic swimming training aimed at personal development;
- shaping a healthy lifestyle, and fostering physical, moral, ethical, and volitional qualities.

The program material is integrated into the unified system of sports training and includes addressing the following tasks:

- satisfying children's needs for physical education and sports;
- creating and ensuring the necessary conditions for personal development, strengthening health, hardening the body, providing versatile physical education, vocational guidance for children and adolescents, helping them determine their future, and adapting them to social life;
- shaping the general cultural awareness of children and adolescents;
- identifying and developing the creative potential of gifted children and adolescents;

- ensuring high-quality sports training with selection and deep specialization in the chosen sport;

- creating and supporting the necessary conditions for the development of training and competitive workloads of various volume and intensity;

- maximizing the realization of moral and physical capabilities;

- achieving specific athletic results;

- preparing a reserve of athletes.

The program presents the content of long-term sports training for young athletes as a single, continuous process — from initial preparation to high-level athletic mastery. It ensures continuity in the tasks, tools, methods, and organizational forms of training for students in all age groups. The recommended preferential focus of the educational process by years of training is determined based on the sensitive (favorable) stages of age-related development of physical qualities. The program implements the results of scientific and practical research and observations of school-age athletes. It incorporates the best local and international practices in training young swimmers, as well as practical recommendations from age-related sports physiology, hygiene, and psychology.

Sports training during the initial preparation stage includes physical education and health-related activities focused on versatile physical development and mastering the basics of techniques in the selected sport, choosing a sports

specialization, and meeting the control standards required for transition to the preparatory training stage. The most important tasks during this stage of training are:

maximally attracting children to swimming; forming their stable interest and motivation to engage in sports regularly and pursue a healthy lifestyle; providing children with well-rounded physical preparation, including development of aerobic endurance, speed, strength, and agility potential; identifying athletically gifted children based on morphological criteria and motor abilities.

Swimming has both health-improving and practical significance. Swimming exercises contribute to the harmonious development of the body, strengthening of the muscular, cardiovascular, and respiratory systems.

They also have a hardening effect and help form vital movement skills in water. Swimming is accessible to men and women of all ages.

When training swimmers, it is important to consider hygienic support and the main trends in the development of modern swimming. First of all, this involves significant training loads, which are carried out through two or even three physical sessions per day, during which athletes may swim up to 18–20 kilometers. Recently, there has been a sharp decrease in the lower age limit of athletes: young swimmers are achieving outstanding results as early as 12–13 years old.

The daily routine of swimmers is based on two, and sometimes three, training sessions per day. Usually, the first session starts early in the morning (7:00–7:30 AM). Accordingly, the daily schedule requires early waking and sleeping, as well as time for a daytime nap. Special attention is paid to the proper alternation of various activities throughout the day to ensure adequate rest. In swimmer training, timely transitions from one type of training load to another—especially from high-volume to high-intensity work—should be widely applied.

The diet of swimmers should be varied, consisting of a wide range of products from both animal and plant sources (the daily caloric intake should be 65-70 kcal per 1 kg of body weight). The daily norms of nutrients (in grams per 1 kg of body weight) are as follows: proteins - 2.1-2.3; fats - 2.0-2.1; carbohydrates - 9.5-10.0. The diet of young swimmers should contain more animal protein-rich foods. Special attention should be paid to the vitamins (mainly vitamin C and B group vitamins) and minerals in the food. Their needs should be met through fresh vegetables, fruits, and properly enriched cooked foods. It is recommended to eat four times a day. Before morning training, a light breakfast should be taken, and nutritional supplements can be used for this purpose.

Swimming as a sport is usually carried out in open or closed artificial water pools that meet the basic hygiene requirements. Artificial swimming pools should be located far from industrial enterprises, preferably in green areas. Open pools and training areas (with 4.5 m^2 per athlete) should be at least 50 meters away from residential buildings, in areas where sunlight can reach the pool effectively, and the water surface of the pool should be at

least 0.7 meters lower than the ground level. The total area of the open pool's landscaping should cover at least 35% of the land area of the site. Diving facilities should be oriented towards the north, northeast, or east. The size of the pool bathhouses and their capacity per session should be determined according to the established standards.

The proper placement of pool buildings is of great hygienic importance. The relative positioning of the artificial water pool structures and buildings should ensure the following sequence for participants' movement:

- outer clothing changing room
- shower room
- training area (hall)

People wearing ordinary clothes and footwear are not allowed to enter the pool hall and adjacent auxiliary rooms. Those who use the pool must also adhere to internal regulations. Before entering the pool hall, individuals must thoroughly wash their bodies with soap and a cloth, especially the dirtiest parts (hands, feet), under a warm shower.

The water in artificial pools must meet drinking water standards. The temperature of the water in the pool bath (°C) may be as follows:

Indoor artificial pool areas are subject to certain hygiene requirements. The walls of the bathhouse must be moisture-resistant and can be cleaned in a wet manner. Corridors and benches should be heated up to 31°C. The following standards are set for the bathhouse area of indoor pools: air temperature - 26°C; relative humidity - 50-65%; air velocity - 0.2 m/sec.

The lighting in pools should be maintained at a certain level. During swimming and water polo activities, the horizontal lighting of the water surface in outdoor pools should be 100 lux, and 150 lux in indoor spaces. When engaging in diving, the horizontal lighting of the water surface in outdoor pools should be 100 lux, and 150 lux in indoor spaces. The vertical lighting in the jumping zone of outdoor pools should be 50 lux, and 75 lux in indoor spaces.

Pool Hygiene

Contamination is a continuous process that occurs in swimming pool water. The water entering the pool may already contain substances that

lead to contamination. However, the main source of pool contamination is the swimmers themselves. Hygiene rules in the pool must be strictly followed during swimming. Substances related to the human body that contaminate the pool are usually divided into three categories: human bodily secretions; dirt that may be on the human body and then enter the pool; and all types of cosmetic products.

Organic Secretions from the Human Body

The main organic secretions of the human body that enter the pool include saliva, urine, mucus from the nose and mouth, as well as particles from hair and skin. These organic wastes released into the pool often contain microorganisms (bacteria and viruses). Many swimmers, especially when exercising in warm water, lose a significant amount of sweat. For this reason, it is not advisable to enter the pool immediately after a sauna session.

Hygiene Rules to Prevent Water Contamination

In some European countries, hygiene rules are strict, and taking a shower before entering the pool is a common practice. Wearing a swimming cap is recommended (and in some pools, it is a mandatory requirement). In England, it is customary to shower after swimming. While the importance of showering before entering the pool may seem obvious, many people neglect this step. After showering, swimmers typically use a footbath before entering the pool.

Hygienic Conditions in Different Swimming Pools

Everyone who comes to the pool must be informed about the rules of its use, including the hygiene regulations in the pool. To help people better remember the hygiene rules, various posters can be placed at the entrance to the pool.

Regular swimming training brings more benefits to students if personal hygiene rules are followed, and if actions for body care and self-discipline are practiced.

By observing personal hygiene rules, the following must be done:

- perform morning exercises every day for 25–30 minutes, take a shower or wipe yourself with cool water;

- eat breakfast, lunch, and dinner on time; distribute food intake according to the required calorie intake as follows: 35% for breakfast, 40% for lunch, and 25% for dinner.

Safety Rules During Swimming Exercises in Swimming Pools. Ensuring the Safety of Training Sessions

Hazardous factors in the pool:

Physical: (slippery surfaces; sharp edges on bathtubs and floor surfaces; noise; electrical equipment (hairdryers, etc.); hot water in the shower; low water and air temperatures; risk of drowning);

Chemical: (increased concentration of various chemical substances in the water and air).

Trainees must comply with fire safety regulations and know the locations of primary fire-fighting equipment.

Any victim or witness must immediately inform the coach-instructor conducting the training sessions in the pool about any accidents.

Without the permission of the coach-instructor conducting the training in the pool, it is prohibited for participants to approach or use equipment located in the pool and auxiliary rooms (changing rooms, showers, etc.).

Do not use cleaning agents in glass containers or on glass surfaces.

Students who fail to follow or violate these instructions may be removed from classes.

– **Safety Requirements Before Starting**

– Study the contents of this manual.

– With the permission of the coach-instructor, go to the changing room, undress, and neatly fold your clothes without disturbing others.

– Wash thoroughly with soap and water (do not wear your swimsuit during this).

– Put on your swimsuit and swim cap.

– Enter the pool area carefully.

– Enter the water only with the coach-instructor's permission, using the designated ladders and with your back facing the water.

– It is prohibited to begin exercising immediately after eating or after intense physical exertion.

Safety requirements during lessons

During classes, the student is required to:

- follow these instructions;
- strictly adhere to all instructions given by the coach-instructor conducting the training;
- maintain sufficient time intervals during water exercises performed in sequence to avoid collisions;
- jump from the poolside platforms only with the coach-instructor's permission;
- use sports equipment (such as kickboards, balls, pull buoys, etc.) only with the coach-instructor's permission and under their supervision.

The following are prohibited for students:

- performing any actions without the permission of the coach-instructor conducting the training;
- grabbing each other by the hands, feet, head, or any other body parts to prevent accidents and injuries;
- attempting to "dunk" one another;
- removing someone's swim cap;
- running in the pool area or changing rooms;
- jumping into the water from the sides or the ladder;
- bringing any items into the pool area without the permission of the coach-instructor conducting the training.

Safety Requirements in Emergency Situations

If you experience joint pain, muscle cramps in the limbs, severe skin redness, discomfort during physical activity in the water, bleeding, or if you feel unwell, stop the lesson and inform the coach-instructor conducting the training, then contact the pool nurse.

If you feel cold, inform the coach-instructor conducting the training, exit the water with their permission, and dry yourself with a towel.

In case of cramps, do not panic—try to stay afloat and call for help.

If an emergency occurs (such as the presence of unusual odors, smoke, or fire), immediately inform the coach-instructor and follow their instructions.

In case of injury, notify the coach-instructor.

If necessary and possible, assist the coach-instructor in providing first aid to the victim.

Safety Guidelines for Swimming Lessons in the Pool

For group swimming sessions in the pool:

Swimming is only permitted with a doctor's approval.

Maintain strict discipline during class.

Enter and exit the water only upon command.

Count the number of trainees before entering the water, while in the water, and after exiting.

In the initial lessons, divide participants into pairs so they can monitor each other.

If participants show signs of severe chilling (shivering, blue lips), stop water exercises immediately.

Before the start of the lesson, inspect the swimming area, equipment, and inventory; any malfunctions must be addressed immediately.

Trainees must have appropriate sports attire: swimwear and swim caps.

For swimming across the pool, students' first swims must be conducted one-by-one under the supervision of the instructor, along the outer lanes.

Diving and jumping from the start block are only permitted under the direct supervision of the instructor, and only after students have learned to swim at least 25 meters.

Diving exercises must be performed individually under the instructor's supervision.

Classes end with the instructor's signal, who oversees the group's orderly exit from the water and the pool area.

The next water session may only begin after the previous group has completely exited the pool.

Students must possess skills in assisting a drowning person.

Equipment and gear for training

Swimmers' Equipment

Swimmers' clothing and footwear for dryland training should be chosen according to the appropriate weather conditions. During competitions, boys wear special swimming shorts, while women and girls wear swimsuits.

Swimming gear includes the following:

- swimsuit
- goggles
- swim cap
- non-slip pool shoes

Swimwear should have features that allow the swimmer to feel confident and comfortable during training. It must be made of synthetic fabrics such as polyamide, Lycra, nylon, polyester, or microfiber. Swimwear and swimming pool accessories should be resistant to chlorine and should not cause allergic reactions.

Swim caps protect the hair from water.

Swimming goggles are necessary to help the athlete see clearly underwater, protect the eyes from the effects of chlorine compounds, and eliminate discomfort when submerged.

Swimming Pools, Their Equipment, and Operation

The primary location for conducting swimming training is the swimming pool. There are both indoor and outdoor types of swimming pools. A modern indoor swimming pool is a large sports facility with numerous amenities and services. These include showers, changing rooms, restrooms, relaxation areas, cafeterias, seating areas, massage rooms, heating rooms, gym rooms, medical offices or service rooms, and more. Standard pools regulated by the International Swimming Federation (FINA) are used for major international competitions. The length of a swimming lane is 50 meters; the width of each lane is 2 meters; the depth must be at least 1 meter. There are eight swimming lanes in a pool. The float lines at both ends of the pool must have a different color 5 meters from the wall. A contrasting line is marked at the center of each lane on the bottom of the pool; its width is 0.2–0.3 meters and its length are 46 meters. Each line must end with a transverse line of the same width and 1 meter in length, located

2 meters from the end walls of the pool. Starting platforms must be 0.50–0.75 meters above the water surface, with a surface area of 0.5 x 0.5 meters, and a maximum slope angle of no more than 10°. For water starts, vertical and horizontal handles are installed at a height of 0.3–0.6 meters above the water surface. For backstroke events, the water depth for the first 5 meters must not be less than 1.2 meters. Pools used for backstroke must be equipped with special indicators—ropes with suspended flags. The water temperature should be 26 ±1°C. The requirements for 25-meter pools are the same. According to regulations, competitions must be held in rectangular-shaped pools. In our country, the following two standard dimensions are permitted for training and swimming competitions: 25 x 16 meters for 6 lanes (with a shallow end depth of at least 1.2 meters and a minimum depth of 1.8 meters), 25 x 11 meters for 4 lanes, suitable for adult instruction and public swimming.

Training pools do not have standardized length and width, but the water depth is set as follows: For children over 14 and adults: 0.9 meters at the shallow end and 1.25 meters at the deep end; 5 m² water surface per person. For children aged 11 to 14: 0.8 meters at the shallow end and 1.15 meters at the deep end; 4 m² water surface per person. For children aged 7 to 11: 0.6 meters at the shallow end and 0.85 meters at the deep end; 3 m² water surface per person. Additionally, the following types of swimming pools are used in swimming instruction practice: *(the list continues)*.

1. Small Indoor Pools
2. Pools with Small Dimensions
3. Indoor and Outdoor Sports Pools
4. Collapsible Structures
5. Natural Water Pools Equipped with Training Facilities

Indoor pool rooms are equipped with ventilation systems, adequate lighting, and proper air temperature. Cleanliness and order are maintained in these areas. According to sanitary and hygienic standards, the quality of the water supplied to the pool must comply with "Drinking Water" standards. For preschool children, the water temperature should be maintained at 30–32°C, and for older children, 27–28°C. The air temperature should range from 24 to 28°C. A proper sanitary and hygienic

environment is maintained within the pool. Regardless of the type of pool or the flow of clean water (amounting to 10–15% of its volume), pools with volumes up to 200 m³ must be completely drained and disinfected every 10 days. The pool is thoroughly cleaned with a soda solution, scrubbed with brushes, and rinsed with hot water from a hose. According to current regulations, pool facilities must be regularly ventilated, cleaned daily, and routinely disinfected. Floors, benches, wooden grid mats, door handles, railings, and many other surfaces are wiped with damp cloths soaked in a 0.5–1% chloramine B solution (1 teaspoon of chloramine per 1 liter of water). General cleaning of the pool area is carried out periodically.

If it is not possible to teach swimming in swimming pools, specially equipped natural water bodies such as rivers, lakes, and seas are used. In this case, the swimming area must be thoroughly prepared. When selecting the location, the following factors are considered:

- the nature of the coastline
- the speed of the water flow
- the condition of the water
- the presence of residential buildings, enterprises, and other structures

The facility should have the following minimum equipment:

1. Rubber buffers (with handles for easy grip, ranging from 3 to 8 mm in diameter)
2. Special devices for developing the swimmer's strength, such as resistance block devices or simulators
3. A training panel
4. A set of dumbbells, including adjustable ones
5. A set of stones weighing from 1 to 5 kg
6. Balls for sports
7. Ropes
8. Stopwatches

After training sessions, the process of recovery is aimed at accelerating recovery, preventing possible excessive strain and illnesses, and eliminating the long-term consequences of injuries and painful conditions. This highlights the need to create recovery centers in large sports complexes. The

location of the center should ensure the convenience of each procedure, as well as compliance with safety and sanitation regulations. Among the recovery measures are balanced nutrition, sauna, massage, self-massage, psychological relaxation methods, and others.

Control Questions:

1. Explain the characteristics of swimmers' overall physical fitness.
2. Talk about swimmers' special physical fitness.
3. Provide information about the hygienic requirements for the pool.
4. Talk about swimming attire.

Section II. TECHNIQUE OF SPORT WAYS OF SWIMMING

Chapter II.1. Technique of sport ways of swimming

Swimming technique refers to the harmonious execution of movements. When this is done according to certain movement rules, there is little to no difference between professional swimmers and ordinary people swimming in water. To achieve this, it is essential to have a clear understanding of the form of swimming, movement methods, and the coordination and compatibility of those movements.

When this is achieved, the athlete is able to fully mobilize both external and internal strengths at a high level. A swimmer who consistently adopts a "standardized" swimming pattern gradually develops their own individual swimming technique. As a result, they begin to express their full range of physical and functional abilities through their personal technique. This is typically referred to as individual technique. Individual technique, as a rule, requires constant development and improvement. The more refined an individual technique becomes, the more efficiently and smoothly the swimmer moves through the water, opening up opportunities to train in new styles.

As mentioned earlier, the speed or slowness in improving swimming technique greatly depends on the swimmer's age, height, proportional development of body parts, weight, leg strength, and other personal attributes specific to the swimmer. The athlete's physical fitness, strength, and flexibility also play a crucial role.

It is well known that water has its own natural properties and laws governing buoyancy and movement within it. First and foremost, one must understand the concepts of hydrostatics and hydrodynamics.

Hydrostatics refers to the balance of the swimmer's body in water, while hydrodynamics refers to the movement of the swimmer's body through water. Therefore, the coordinated set of a swimmer's movements that results in forward motion in the water is known as dynamic swimming. Just as dynamic swimming stems from hydrodynamics, static swimming stems from hydrostatics. This can be explained as follows: for example, a person's body can float in water without any movement for a certain period

of time, which is well known by those who swim. This condition, where the body remains suspended on or within a layer of water without movement for a certain time, is what we call static swimming.

Fundamentals of Swimming Sport Technique

Principles of Training and Instruction in Swimming Practice

Methods of Exercises in Swimming Training

In swimming training, exercise methods are traditionally divided into two subgroups:

1) those primarily aimed at mastering swimming technique;
2) those primarily aimed at developing physical abilities.

Both subgroups are closely interconnected, as they ensure coordination between the motor and functional systems of the athlete's body.

The practical methods of the first subgroup are widely used in instruction, where the main goal is to master and improve competitive swimming techniques. Alongside acquiring technique, improvements are made in movement quality, and the development levels of strength, endurance, flexibility, coordination, and other attributes are increased. In the initial stages of training, the second subgroup's methods take a leading position.

Learning swimming technique, and in general mastering a swimming style, is carried out through the repeated performance of its individual elements. Two teaching methods are used for this: part-whole and whole method.

The part-method of instruction helps learners acquire swimming techniques more effectively, reduces the number of errors, shortens overall training time, and improves quality. Mastering individual elements of the technique enriches the learners' motor skills and expands their motor experience.

The basis of the part-method is a system of lead-up exercises, learned in sequence, which ultimately leads the learner to a full understanding of the swimming technique as a whole.

During the initial stages of swimming instruction, a large number of lead-up exercises are used. Structurally, these exercises resemble the

movements of the swimming technique being learned. As previously mentioned, the development of these exercises is based on the "positive transfer" of motor skills, which is most effectively demonstrated during this stage.

The need for such exercises is linked to the specific nature of swimming: performing movements in an unusual environment and in an unfamiliar horizontal body position; difficulty of communication between the instructor and the group compared to other sports; and the need to master large-amplitude cyclical movements. Swimming instruction methods are classified into verbal, demonstrative, and practical teaching methods.

The verbal method influences the learner through the second signal system and facilitates the process through impressions, understanding, and conclusions. During swimming instruction, the teacher's speech performs various functions. It should create an impression of movements, encourage action, ensure proper execution of exercises, correct mistakes in time, help understand the meaning of tasks, evaluate, and summarize the training process for improvement. For this purpose, methods such as narration, explanation, commands, reprimands, and discussion are used. These should be very brief, clear, and impactful.

For example, to describe freestyle and backstroke swimming, the following instructions may be given: arm movements prepared using the breaststroke (brass) technique; for leg movements in backstroke: "kick upward from below with the heel."

Demonstrative methods provide clear concepts when teaching swimming techniques. These include the demonstration of individual swimming elements, full swimming styles, and educational films.

The best time to present new material is during breaks between exercises performed in groups and in the water.

The demonstration of swimming technique is performed by a skilled athlete, while the teacher provides explanations. During the session, group participants should observe and become familiar with the correct execution by those performing the tasks properly.

During swimming instruction, the main practical method is the exercise method, which involves repeatedly practicing key elements. All exercises

are unified under a specific, well-defined goal. After demonstrating each swimming style, all movements (arm movement, leg movement, breathing) are analyzed. Then, they are mastered in full.

During swimming instruction, it is important to use targets correctly to simplify and refine exercises. To ease learning conditions, instructors use supportive equipment in small spaces or at the edge of the pool. Performing exercises at a slow pace allows new learners to adjust. Getting familiar with swimwear and adapting to movement is challenging when performed at a high intensity. Practicing exercises over short periods enables learners to perform even difficult movements.

For example: A beginner swimming 25 meters backstroke will find it easier to complete the task while swimming in the direction of the pool. It is also easier to swim using a kickboard for leg support than without one.

Visual and auditory targets are identified. Visual targets include the instructor's hand movements, black lines in the pool, crosswise lines, squares on the pool wall, and similar markers.

Auditory targets include the instructor's signals (voice or whistle), which help define the beginning of an element and clarify the entire movement.

The main components of swimming instruction include physical development, swimming preparation, and specialized training exercises.

Developmental exercises are performed on land and aim to improve a swimmer's speed, agility, and strength. These exercises target specific body parts needed for swimming. Therefore, the exercises are divided for the arms, shoulders, torso, legs, and neck. The effects of these exercises may vary—for example, for stretching the body, increasing speed, or enhancing flexibility.

Developmental exercises can involve movements performed either without equipment or with simple objects (e.g., wooden sticks, balls).

Preparatory exercises have a specific character and are aimed at developing the knowledge necessary for swimming in water. These exercises are focused on learning how to behave in the water and mastering swimming techniques.

Water adaptation exercises begin in the shallow part of the pool and are designed to help beginners feel comfortable and avoid fear. This includes entering the water independently, opening eyes underwater, and exhaling while submerged. These exercises also involve using arms and legs, walking underwater (jumping or running), and exhaling into the water. By performing these exercises, the swimmer learns to control themselves in the water and gains self-confidence.

Before mastering competitive swimming techniques, exercises should be conducted on land to develop specific body parts, such as stretching the body and engaging the shoulder muscles. These exercises help build the strength needed to push off powerfully underwater and support effective movement through the water.

Special Exercises:

These exercises are aimed at developing swimming technique and are divided into three groups:

1. Exercises for correcting mistakes
2. Learning each swimming style
3. Choosing and developing one's own unique swimming style

These are further divided into the following practice categories:

a) Training for leg movements and breathing, coordinating breathing with leg movements

b) Training for arm movements and coordinating with breathing

c) Comprehensive exercises to learn the entire movement pattern

Special exercises are used to improve competitive swimming techniques, correct technical errors, and help swimmers adopt better variations of the technique.

- forms and methods of teaching swimming:
- there are three main forms of teaching swimming:

1. Group instruction
2. Combined group and individual instruction

- I- In the first form, all learners are taught in the same way as a group.
- II- The second form is more focused on learners who do not yet know how to swim, providing more personalized attention.

- III- The third form is a combined approach and is considered the main method used in schools, educational institutions, and swimming clubs for delivering training sessions.

Preparatory exercises for learning and mastering swimming Techniques

Main tools of instruction

Main Tools of Instruction refer to general developmental, preparatory, and special exercises.

1) General developmental exercises (G.D.E.):

These exercises create opportunities to improve key physical qualities such as strength, speed, agility, endurance, and flexibility. G.D.E. are among the main tools of therapeutic physical education for ensuring the proper growth of the spinal column, expansion of the chest cavity, and correct development of arm, leg, and other body muscles. In addition to increasing work capacity and improving motor skills, G.D.E. also broaden a person's adaptability and confidence. From an educational standpoint, G.D.E. include gymnastic elements like walking, running, and jumping, performed in various forms of physical activity.

2)Preparatory exercises allow for the technical development of physical qualities. They are also essential for teaching swimming skills and for developing certain swimming elements. Preparatory exercises are divided into three groups:

a) preparatory exercises for adaptation to water

b) preparatory exercises for teaching swimming using simplified methods

c) preparatory exercises for learning competitive swimming

a) Preparatory exercises for adaptation to water help the learner overcome fear when facing water, teach how to position the body horizontally in water, and assist in mastering basic movements.

b) Preparatory exercises for teaching swimming using simplified methods serve as a foundation for learning the techniques of competitive swimming movements. They include elements for teaching technique and movements in full coordination (arm, leg, and breathing movements)

through simple gliding actions. Preparation for learning competitive swimming techniques includes imitation exercises performed on land and exercises done in water.

Teaching methods.

The teaching method is the most effective tool for instructors to teach learners the necessary skills and abilities.

There are three main types of teaching methods: verbal method, visual method, and practical application method.

- Verbal method – This includes explanation, instruction, conversation, feedback, giving commands, and counting the duration of exercises.

- Visual method – This involves demonstrating the exact execution of the exercise, using educational materials and visual aids, and conducting lessons through instructional videos.

- Practical method – This means performing exercises in practice, using games and competitions. The method of performing exercises is aimed at learning and fully mastering certain elements through repeated practice.

- Game method – This makes the lesson more interesting, helps increase learner engagement during the exercise, and helps prevent fatigue.

- Competition method – This involves learning exercise elements through challenges like "who can glide farther," "who can swim faster," and "who can swim longer."

All exercises used in the process of learning to swim are integrated into a systematic structure. First, the swimming technique being taught is demonstrated and analyzed (to provide a clearer understanding), then it is broken down into its elements (coordinating leg and arm movements with breathing). Gradually, the learner masters the full swimming technique. The general system of teaching swimming consists of the following stages: demonstrating the swimming technique to be learned and its elements (body position, breathing movements, and the coordination of arm and leg movements with breathing).

II.2. Technique of swimming in the freestyle method on the chest

Freestyle (front crawl) swimming on the chest is characterized by the swimmer's body being in a relatively horizontal position in the water, with alternating movements of the arms and legs. The front crawl is the fastest and most popular swimming style and holds great importance in competitive sports (Figure 29).

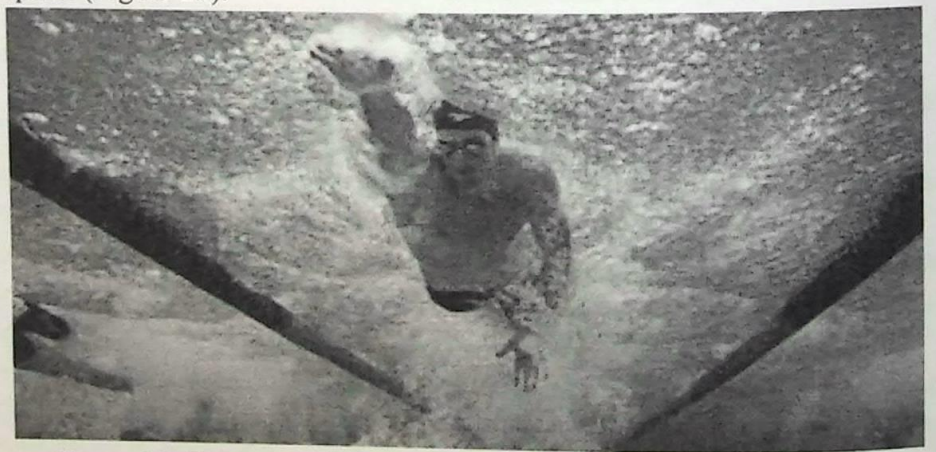

Figure 29. Freestyle (Front crawl) swimming technique on the chest.

Sport Significance. In swimming, absolute speed records have been achieved using the freestyle (front crawl) technique. Currently, this method is successfully used in the following swimming competitions:

- Distances of 50, 100, 200, 400, 800, and 1500 meters;
- In relays of 4x100 meters and 4x200 meters;
- As the final leg in the 4x100 meter medley relay;
- As the final leg in the 200 and 400 meter individual medley;
- In open water swimming over long distances of 5 and 25 kilometers;
- In various multisport disciplines that include swimming (such as triathlon, modern pentathlon, and others).

Practical Significance. The practical significance of the freestyle (front crawl) swimming technique lies in its use in various situations, such as

crossing water obstacles, swimming while clothed, assisting drowning individuals, and more. With the front crawl technique, it is possible to dive and swim underwater, swim using only the legs, or assist the movement with arm strokes similar to the breaststroke.

Body Position. In front crawl swimming, the swimmer's body is positioned almost horizontally at the surface of the water. The swimmer's head is lowered into the water facing downward (except during breathing), and the hips are kept close to the surface.

Leg Movements. In front crawl swimming, the legs move alternately—upward (preparatory movement) and downward ("kick")—with a small amplitude, with minimal bending at the knees and the feet slightly turned inward. This positioning helps maintain a horizontal and streamlined body position and propels the swimmer forward. The movement starts from the hips, followed by the lower legs and feet. The downward motion of the legs creates a scissor-like movement. When the legs are moved correctly, splashes and foam trails appear on the water's surface.

Arm Movements. In front crawl swimming, the arms alternately perform stroking movements in the water and recovery movements above the water. A full arm stroke cycle is divided into the following phases (Figure 30): - in the water (propulsion phase): catch, pull, and push; - out of the water (recovery phase): exit from the water, recovery over the surface, and re-entry into the water.

While one arm is performing the underwater stroke, the other arm moves above the surface, enters the water, and reaches forward. To maintain relatively consistent speed during front crawl swimming, the stroke of one arm must begin before the momentum generated by the previous stroke of the opposite arm has diminished.

Breathing. Breathing is done through the mouth when the arm exits the water. After taking a breath, the swimmer turns their head downward and slowly exhales through both the mouth and nose. The coordination of arm movements and breathing can be done in the following variations: one breath and exhalation with two-arm strokes (unilateral breathing variant); one breath and exhalation with three-arm strokes (bilateral breathing variant).

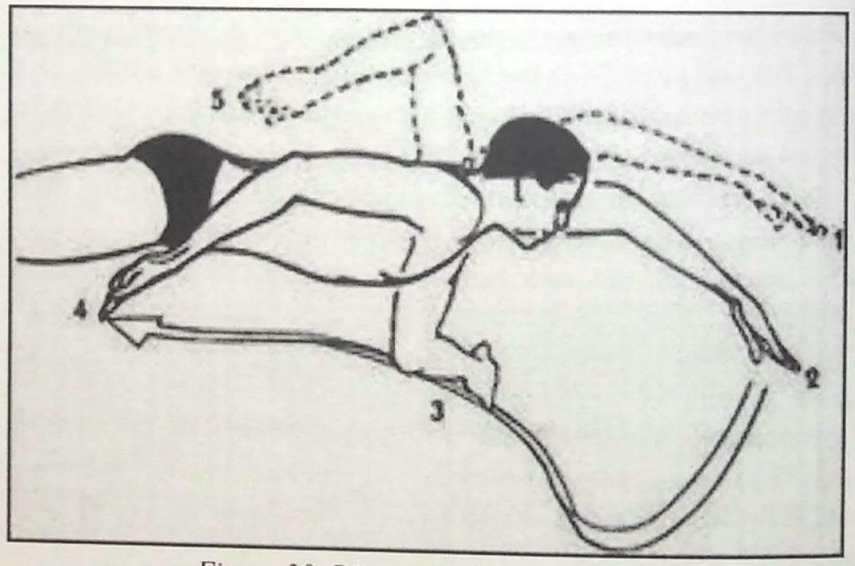

Figure 30. Direction of arm movement.

General coordination of movements. In front crawl swimming, the coordination of movements is divided into several types: "six-stroke," "four-stroke," and "two-stroke." In the "six-stroke" variant, the full cycle of movements includes: two arm strokes (with the right and left arms), six leg kicks (each leg's upward and downward movement counts as one stroke), breathing in, and exhaling (Figure 31).

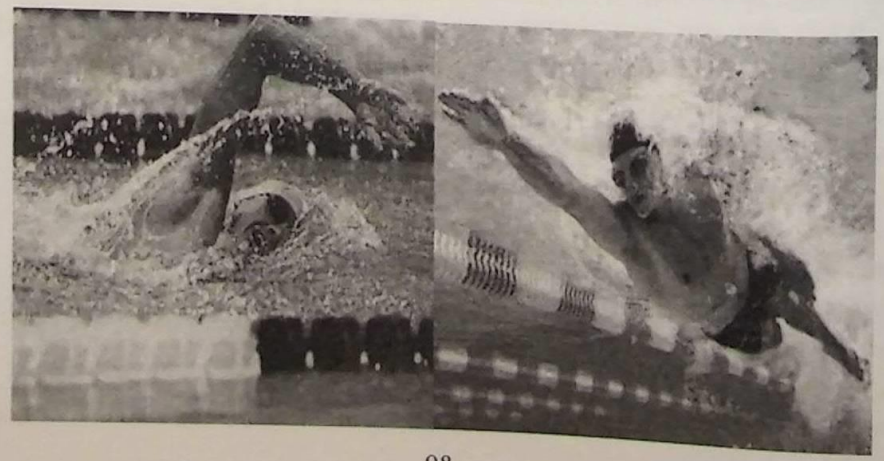

Figure 31. General Overview of the Front Crawl Swimming Technique

Control Questions

1. What is meant by swimming technique?
2. What is meant by hydrostatics?
3. What is meant by hydrodynamics?
4. In which distances is the front crawl used?
5. Explain the body position in front crawl swimming.
6. What are the arm movements in front crawl swimming?

II.3. Technique of swimming in the freestyle method of stretching

The backstroke swimming technique is characterized by the continuous alternating movements of the arms and legs. Its main difference from other competitive swimming techniques is the position of the body and breathing. Breathing is performed above the water, which makes this swimming technique very convenient for movement in the water (Figure 32). In terms of speed, the backstroke ranks third after the front crawl and butterfly strokes. In practical swimming, it is used to assist injured individuals, carry various loads, and tow objects through the water.

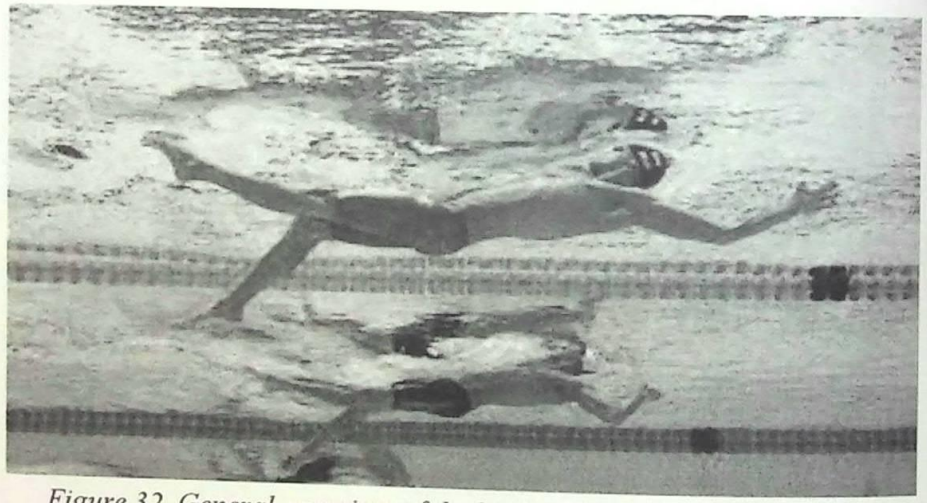

Figure 32. General overview of the backstroke swimming technique.

Currently, backstroke swimming is successfully used in the initial stages of teaching. This is greatly aided by the swimmer's balanced body position and the fact that breathing is performed above the water, which improves breathing conditions.

Sport Significance. Medals are competed for in the following distances:

- 100 and 200 meters swimming;
- the first leg of the 4x100 meter medley relay;
- the second leg of the 200- and 400-meter individual medley.

Practical Significance. Backstroke swimming is used in the transport of individuals who do not know how to swim, in assisting drowning people, and in various situations involving swimming with loads and other circumstances.

Body Position. In backstroke swimming, the swimmer's body is positioned almost horizontally, extended, and streamlined. The shoulder line is slightly above the hips, with the hips and thighs near the water surface. The body's attack angle is 6-10°. The swimmer's head is submerged, with the water level approximately at the ear line, and the face is facing upward. The arm movements can be divided into phases. These

phases are similar to the arm movement phases in front crawl swimming but differ in duration (Figure 33).

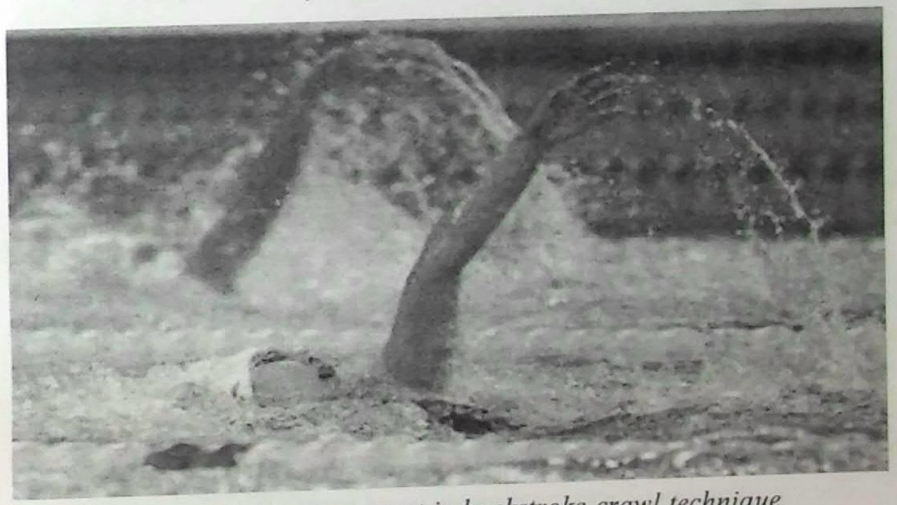

Figure 33. Arm movement in backstroke crawl technique.

• Swimming begins when the arm enters the water from above along its full length (traditionally along a line drawn from the shoulder joint along the body axis). At the end of the support phase, the swimmer rotates the arm perpendicular to the direction of movement. Compared to the front crawl, in backstroke, the arm is extended outside the shoulder line, and the angle between the arm and the shoulder line can be 20° or even greater.

• Main propulsion phase. The arms and hands are aimed at generating the greatest propulsive force. This is performed with a series of strong pushes, with the elbow slightly turned backward and downward. During the stroke, pressure on the arm increases steadily. At the end of the stroke, the arm straightens, and the push ends behind the pelvis line.

• Arm exiting the water. The arm rotates toward the surface of the water at the hip (with the little finger facing upward) and quickly exits the water. To speed up the process, the shoulder joint should be lifted upward and the body rotated along its longitudinal axis toward the water surface (as if helping with the shoulder).

• The arm is almost completely straight. The trajectory of the arm movement in the air is individual and can occur in the vertical plane or close to the water surface.

Leg movements.

In the backstroke crawl technique, the legs move alternately—upward ("kick") and downward (preparatory movement). The amplitude of hip movement is moderate, and the hips are kept near the water surface. The degree of bending at the knee joints is greater compared to the front crawl, and the feet enter the water more deeply.

The primary purpose of alternating leg movements is to maintain a balanced, streamlined body position and to contribute a certain amount of propulsive force to move the swimmer forward.

Arm movements. A complete arm movement cycle consists of the following phases: water catch, pull, push (stroke movement), arm exit from the water, aerial recovery, and water entry (preparatory movement).

The coordination of arm movements must ensure the continuity of the stroke: when one arm finishes the stroke and exits the water, the other arm enters the water and begins the catch phase (continuous coordination) (see Figure 34).

Breathing is coordinated with the full cycle of one arm movement. Breathing in backstroke crawl is relatively easier, as inhalation occurs above the water surface without turning the head. Inhalation is done through the mouth, and exhalation occurs through both the mouth and nose.

Breathing follows a "three-phase" pattern – inhalation, breath-holding, and exhalation.

General coordination of movements. The "six-beat" backstroke crawl is the most rational form of movement coordination. It is based on continuous arm strokes synchronized with breathing. For each complete arm cycle, there are six alternating leg movements (six upward "kicks" with the feet).

Figure 34. General view of the arms in backstroke swimming technique

Control Questions:

1. At what distances is the backstroke swimming technique used?
2. Explain the body position in the backstroke swimming technique.
3. Describe the arm movements in backstroke swimming.
4. What is the angle between the arm and the shoulder line in the backstroke technique?

II.4. Technique of swimming in the breaststroke method

Breaststroke is slower compared to all other swimming techniques in terms of speed. It is characterized by symmetrical movements of the legs and arms. The preparatory movements being performed underwater significantly reduce the overall speed of this swimming style.

Breaststroke is a swimming style performed on the chest, where the arms move forward simultaneously in a symmetrical manner and the legs push off at the same time on a horizontal plane (Figure 35).

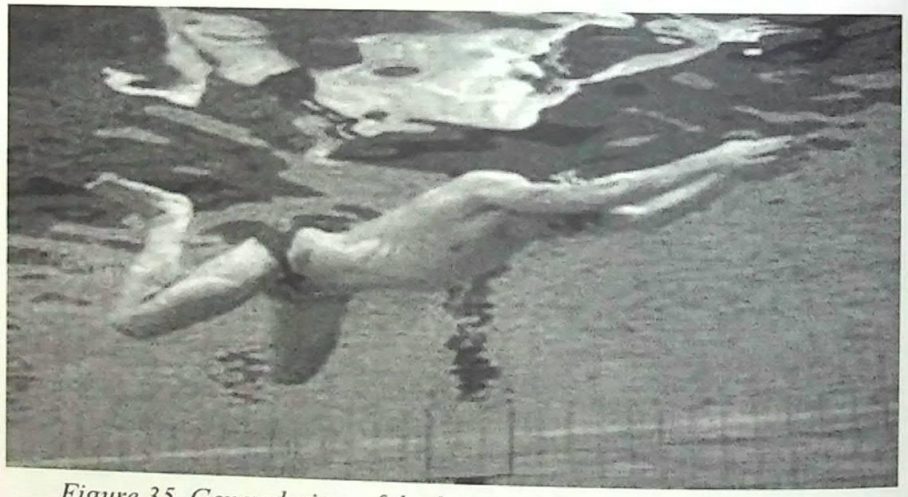

Figure 35. General view of the breaststroke swimming technique

In terms of speed performance, the breaststroke ranks last among competitive swimming styles. However, it holds great importance in practical swimming because it allows the swimmer to move quietly, have a good view above the water, and cover long distances. In the breaststroke, the strong propulsive movements of the legs create significant thrust, enabling the swimmer to effectively use this technique for transporting injured individuals or objects. The breaststroke is also used for underwater swimming.

In the breaststroke technique, one swimming cycle consists of a single symmetrical and simultaneous movement of the arms, a movement of the legs, and a single inhalation and exhalation through the mouth.

Body Position

The angle of attack changes throughout the entire cycle. The most horizontal position of the body is during the glide phase after the kick. The largest angle of attack is recorded during inhalation, reaching up to 15–17° for some swimmers.

Arm Movement. In the breaststroke, the arms set the pace and rhythm. They are closely connected to breathing and influence the overall coordination of movements. The arm movement cycle can be divided into stages:

Arm extension (preparatory phase): The arms are straightened at the elbow joints, and the swimmer extends the arms forward together with the shoulder joints. The hands are brought close together, with the palms smoothly rotating downward.

Glide or propulsion: The arms are fully extended, and the swimmer glides forward in a stretched position. The hands are positioned near the surface of the water.

Propulsive Movement – the pull phase can also be divided into stages:

- In the initial stage, the arms are extended forward, and the palms rotate outward and to the sides. Then the elbows begin to bend, rising to a higher position and moving outward. At the end of this initial phase of the pull, the angle between the water surface and the forearm is approximately 45°.

- In the main phase of the pull – the sweep – the arms accelerate sharply while moving forward: first outward, then inward, creating support in the water. By this point, the forearms form an angle of about 60° with the water surface. The hands continue their motion downward and inward toward each other, serving as a support.

The push is the fastest and most powerful part of the stroke cycle.

- In the final stage of the stroke – the arms are brought together in front of the chest. The arms move inward and forward, joining under the chin, with the elbows also coming together in front of the chest. It is at this moment that the swimmer inhales.

Leg Movement. The leg movements in breaststroke differ significantly from those in other swimming techniques. In breaststroke, the preparatory leg movements enable strong propulsion (kick), which pushes the swimmer forward.

The movement of the legs can be divided into stages:

• Pulling, which is considered the preparatory phase of the movement – it begins with the bending of relaxed knees and a slight flexion at the hip joints. The knees move downward and sideways, and the legs shift along the width of the pelvis at water level. The final part of the pull is performed more forcefully: the legs bend significantly at the knee joints, and the knees spread sideways to a distance approximately one and a half times the width of the pelvis. At the end of the movement, the feet quickly rotate outward at

the heels, after which the swimmer immediately begins the propulsion phase.

• The working phase of the kick – before the push begins, the legs bend at the hip joints, and the angle between the thighs and the body approaches a straight line, which can vary depending on the individual characteristics of the swimmer. The lower legs take a position perpendicular to the water surface (the angle between the lower leg and thigh is approximately 45°); the knees spread slightly wider than the pelvis (the degree of leg separation may also vary depending on individual characteristics), and the toes point outward. During the kick, the legs push out evenly and simultaneously while remaining turned outward.

• The legs finish their movement along a trajectory that is slightly downward, resulting in their position 20–30 cm below the water surface. During the kick, the pelvis is firmly stabilized and moves forward as a result of the backward push.

• Glide. After the kick ends, the thighs and knees immediately relax and seem to float up to the water surface, maintaining a well-organized position. As forward speed increases, the gliding phase becomes shorter.

Breathing. After the arm push is completed, the shoulders quickly rise above the water surface, and the swimmer swiftly brings the chin forward and takes a deep breath through the mouth. At this moment, the body's angle of attack reaches its maximum value (ranging from 7–9 to 16–18°). After finishing the inhalation, the swimmer immediately extends the arms forward with the shoulders, straightens the body quickly, and submerges the face into the water. Following a brief pause, exhalation begins, which is performed through both the mouth and nose and continues throughout the rest of the cycle. The movements are fully coordinated during leg motion and the gliding phase (illustrated in Figure 36).

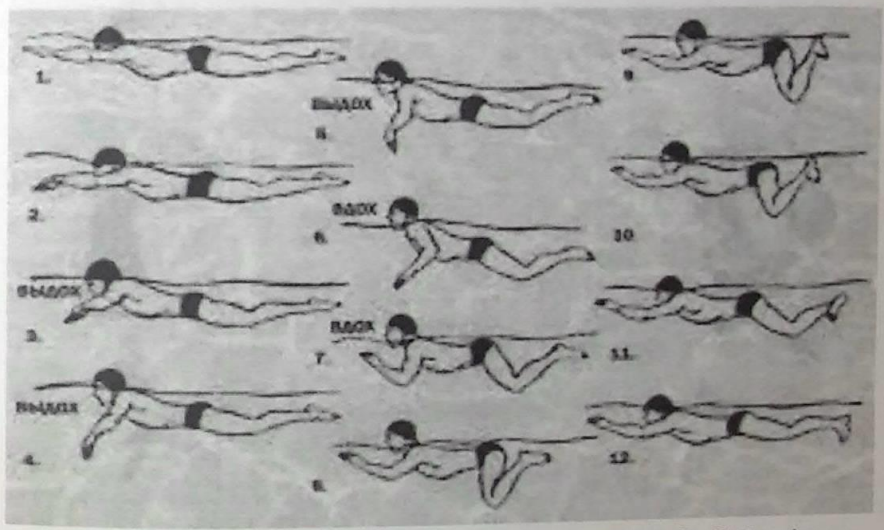

Figure 36. Coordination of Movements in Breaststroke Swimming

• During the stroke, the arms and legs are drawn in, and the knees begin to bend without creating significant resistance;

• While the arms are being moved forward, the legs rise to the starting position for the kick;

• When the arms are fully extended forward, the legs perform the kick.

Control Questions

1. At what distances is the breaststroke used?
2. Explain the body position in breaststroke.
3. Describe the arm movements in breaststroke swimming.
4. Where does the breaststroke rank in terms of speed?

II.5. Technique of swimming in the butterfly method

Butterfly is a swimming style that ranks second in speed after front crawl (freestyle) swimming. A distinctive feature of the butterfly stroke is the continuous, wave-like motion of the legs and body, resembling the movement of a dolphin's tail. Two complete downward kicks with the soles of the feet correspond to one full cycle of arm movement (Figure 37).

According to competition rules, the movements of the arms and legs must be simultaneous and symmetrical.

Figure 37. Rising out of the water in the butterfly stroke.

Sport Significance. In competitions, medals are contested at the following distances:

- 50, 100, and 200 meters;
- the third leg of the 4x100 m medley relay;
- the first leg of the 200 and 400 m individual medley;
- dolphin-like leg movements are used in underwater sports.

Practical Significance. The butterfly stroke has no practical application.

Body Position. The swimmer lies chest-down on the surface of the water, continuously performing wave-like motions with the entire body. These movements ensure the most effective action of the legs.

Leg Movements. In the butterfly stroke, the legs move together in unison. The wave motion begins with an up-and-down movement of the hips, gradually increasing in amplitude as it passes through the hip-thigh,

knee, and ankle joints. The wave-like motion ends with a forceful downward flick of both feet.

Arm Movements. In the butterfly stroke, the arms perform the pulling motion and recovery simultaneously and symmetrically. The arms enter the water at shoulder width. The pull is executed with the elbows bent, sweeping under the body. During the pull, the hands move parallel to each other, with a distance of 15–20 cm between them. The elbows are slightly flared outward. The pull ends when the arms exit the water. To facilitate the recovery over the water, at the end of the pull, the hands turn outward and move sideways and backward through the air.

Breathing is synchronized with the arm movements. Inhalation occurs at the end of the pulling motion, during the arm recovery phase when the swimmer's head and shoulders rise above the water. Exhalation is done during the arm recovery and the beginning of the next pull.

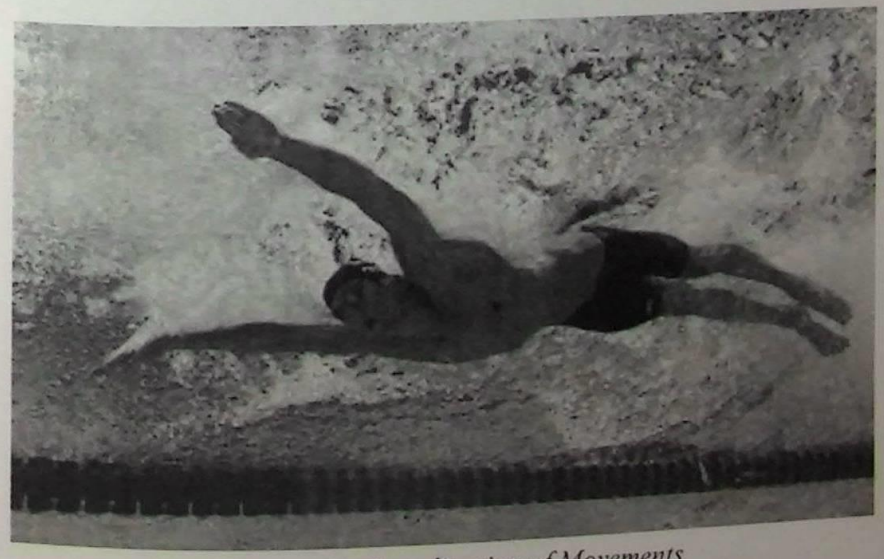

Figure 38. Coordination of Movements

General coordination of movements. In butterfly swimming, two variants are used to coordinate the movements of the arms and legs: "Single kick" – where the swimmer performs one leg kick during one full cycle of

arm movement. "Double kick" – where the swimmer performs two leg kicks during one full cycle of arm movement.

In the "double kick" variant, the first kick is performed simultaneously with the arms entering the water, and the second kick occurs at the end of the pulling phase of the arms and coincides with breathing (as shown in Figure 38).

Review Questions:

1. Where does the butterfly swimming style rank in terms of speed?
2. At what distances is the butterfly stroke swum in competitions?
3. What is the sequence of leg movements in the butterfly stroke?
4. What is the sequence of arm movements in the butterfly stroke?

SECTION III. START AND TURN TECHNIQUES

Chapter III.1. Start technique

General Description. According to competition rules, in all swimming styles except backstroke, the athlete begins the race by jumping off the starting block. The height of the starting block from the water surface ranges from 0.5 to 0.75 meters. A well-executed start can save between 0.2 to 0.4 seconds.

The most common variations of starting jumps from the block are: "start with arm swing", "start with a grab", "track start (athletics-style start)", and "start from a crouched (grouped) position" (as shown in Figure 39).

Figure 39. Starting technique from the block

When analyzing the start technique, the following phases can be distinguished:

- initial position
- preparatory movements and push-off
- flight
- water entry
- glide

- first swimming movements and surfacing

Initial Position: In accordance with the pre-start command, the swimmer takes position at the rear edge of the starting block. After the "Take your marks!" command, the swimmer must place at least one foot on the front edge of the block and be ready to start. For the *"grab start"* technique, the swimmer's legs are bent at the knee joints (approximately 135–150°), feet are shoulder-width apart, and toes grip the edge of the block. The body leans forward, and the fingers grasp the block either between the feet or just outside of them. The head is lowered, and the breath is held. In this position, the swimmer's knees are above the front edge of the block, and the shoulder line and head are slightly ahead. The center of body weight is shifted toward the front of the feet, so the swimmer is fully prepared to initiate the start at any moment.

Preparatory movements and push-off: These are performed in response to the *"Go!"* command. The athlete presses down on the edge of the block with their hands, unbalances the body, pushes off strongly with the legs, swings the arms, and directs the head, body, and arms forward and upward. It is extremely important to push off as quickly and powerfully as possible, propelling the body along an optimal upward-forward trajectory.

Flight: This phase begins as soon as the feet leave the block. The body stretches and tenses, flying along a rational trajectory. The arms are extended forward, and the head is placed between the arms (as shown in Figure 40).

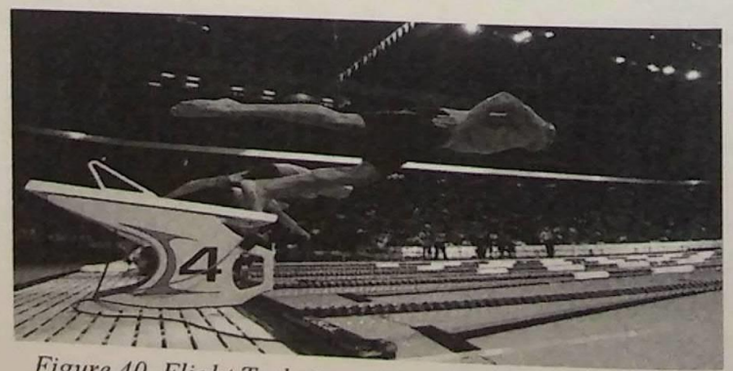

Figure 40. Flight Technique During Start from the Block

Water Entry begins with the entry of the hands into the water. In sequence, as if entering a single point, the hands, head, torso, hips, and feet follow. The swimmer maintains a streamlined position and controls the depth of the water entry. The optimal angle for entering the water is considered to be between 15° and 30°.

Glide starts when the feet enter the water. A unique aspect of this phase is that the swimmer's body transitions from air, a low-density environment, into water, which is nearly 800 times denser. Underwater gliding must be performed in a streamlined position and should not exceed a depth of 80 cm.

First swimming movements and surfacing: In freestyle (front crawl) swimming, after a brief glide, the swimmer begins kicking in the freestyle style, maintaining maximum speed.

In *breaststroke*, the swimmer performs a long pull with the arms extending to the hips, followed by a short secondary glide. Then, the arms reach forward, the legs are drawn in for the kick, and finally, a powerful leg kick is performed to propel the swimmer forward.

III.2. Water start technique

The water start is used in backstroke swimming. Initial Position: After the preliminary command, the swimmer jumps into the water and assumes the starting position in front of the starting grips, facing them. The swimmer holds onto the grips with straight arms at shoulder width, using an overhand grip. The legs are bent, and the feet are firmly placed against the pool wall below the water surface. The knees are positioned between the arms. In response to the "Take your marks!" command, the swimmer bends their arms and pulls slightly toward the grips, holding this initial position without moving. At the starting signal, the swimmer begins the start (as shown in Figure 41). The swimmer's movements during the start can be conditionally divided into the following phases:

- preparatory movements and push-off
- flight
- water entry
- glide

- first swimming movements and surfacing
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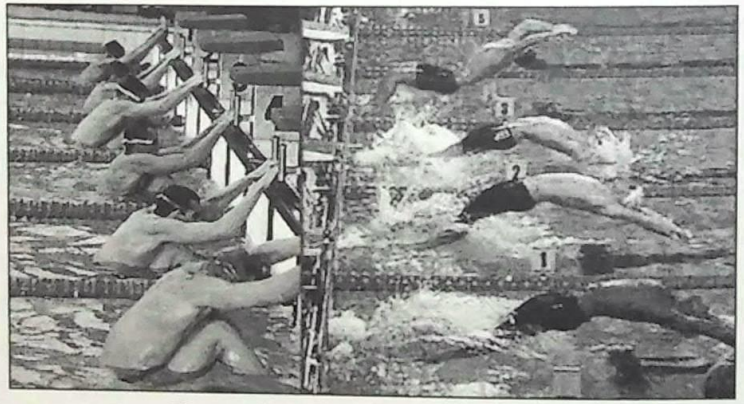


Figure 41. Water Start Technique

Preparatory movements and push-off: At the sound of the starting signal, the swimmer releases the starting grips and, with a sharp swinging motion, directs their arms forward (in the intended direction of movement), while simultaneously powerfully pushing off the pool wall with their feet. During this action, the swimmer's body stretches and arches. *Flight phase* begins as the feet leave the pool wall. The swimmer bends even more and tilts the head backward. *Water entry phase* starts when the hands enter the water. Following in sequence, as if entering a single point, the hands, the back of the head (nape), and shoulders enter the water, followed by the rest of the back. *Glide, first swimming movements, and surfacing:* Underwater gliding lasts a short time. The swimmer slightly tucks the chin toward the chest and directs the body forward and upward. The speed of the glide is maintained and increased through rapid leg kicks and an arm pull (while the other arm remains extended upward).

III.3. Turns technique

General Description: Swimming competitions are held in pools that are 25 or 50 meters long, which means that swimmers must perform one or more turns during the race. All turns, regardless of the swimming style, are

classified based on two criteria: open and closed turns (depending on whether the swimmer takes a breath during the rotation), simple and complex turns (based on the number of axes used during the rotation).

When analyzing turn technique, the following phases are generally distinguished:

- approach (swimming toward the wall)
- touch (entry into the turn) and rotation
- push-off
- glide
- first swimming movements and surfacing

In freestyle (front crawl), there are various types of turns: simple open turn,

simple closed turn (used for beginners), turn with a "pendulum" motion. Forward somersault turn (also known as a "salto" turn, used by well-prepared athletes). The phases of the turn (glide, first swimming movements, and surfacing) are similar to the phases of the start jump.

Simple open and closed turns. As the swimmer approaches the pool wall without reducing speed, they touch it with a slightly bent arm at shoulder height on the opposite side. Then, they bend their legs (tuck into a compact position) and begin rotating horizontally. The arms assist with the rotation: one arm pushes off the wall, while the other performs a pulling motion toward the swimmer. If the swimmer's head comes above the water during the turn and they breathe, this is called an open turn. If the swimmer's head remains underwater during the turn, it is called a closed turn. The rotational movement ends when the feet are placed against the pool wall. Then, the arm that was bracing against the wall releases and moves forward just above the water's surface, and the swimmer's head and shoulder line submerge underwater. The arms stretch forward, the hands come together, and the head is positioned between the arms. The swimmer then pushes off the wall and glides underwater in a horizontal position. The surfacing is then performed through leg movements and a pulling motion of the arms — similar to the start jump phase.

"Pendulum" Turn. In freestyle swimming, the swimmer touches the pool wall with one hand (in breaststroke or butterfly — with both hands

simultaneously), either at the water surface level or just below it. Then, they bend their arms at the elbows and assume a partially tucked position at the waist. The legs are bent at the hip and knee joints, and the swimmer begins a sideways "pendulum" rotation — as if rolling from one side of the body to the other. During this motion, the swimmer performs a pulling movement with one arm and pushes off the wall with the other. The shoulders and head move above the water surface during this time, allowing the swimmer to take a breath. Next, the arm that was pushing off releases and moves over the water. The rotation ends as the swimmer places their feet against the pool wall, fully submerges, and returns to a sideways body position. The arms stretch forward, the head is positioned between them, and the swimmer pushes off the wall. During the push-off, the body rotates toward the chest (prone position), the swimmer fully extends, and after a brief glide, begins the first swimming strokes. (See Figure 42.)

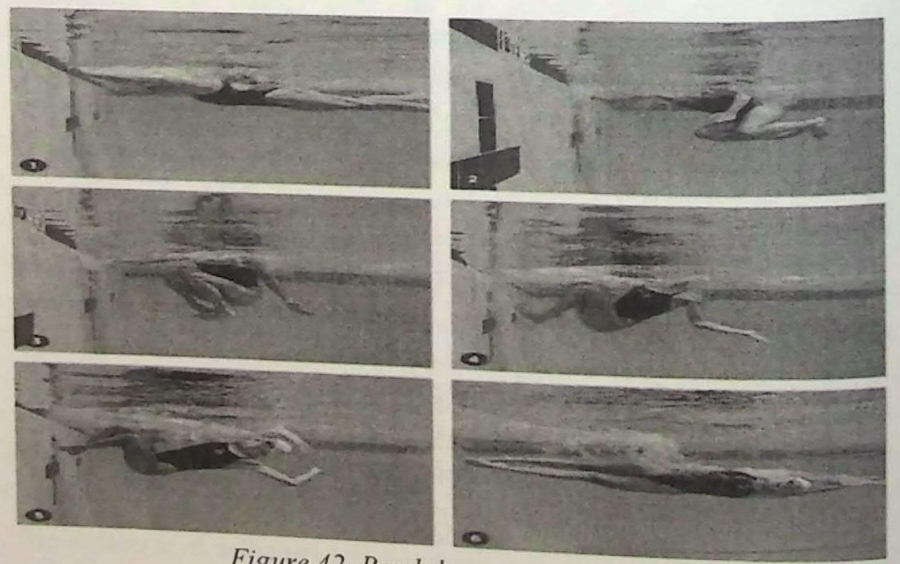
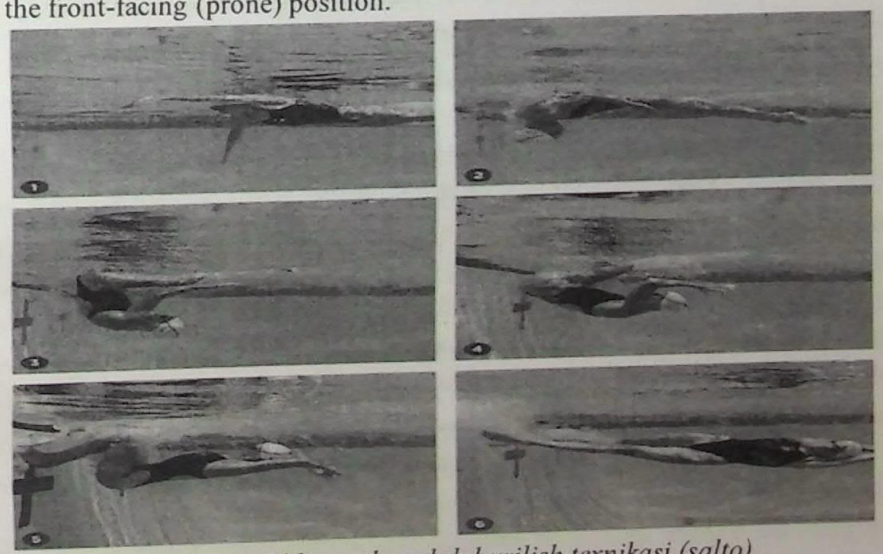


Figure 42. Pendulum turn technique

Forward somersault turn. This is the primary turn type used in freestyle (front crawl) by skilled swimmers during individual medley events. In this complex closed turn, the phase of wall touch is often replaced by the phase

of entering the turn. As the swimmer approaches the turning wall, they complete the stroke first with one arm (leaving it in front of the thigh), then with the other arm. Simultaneously, the swimmer kicks downward with one or both legs and finishes the stroke with the arm while sharply tucking the head underwater, initiating a rotation (forward-downward and slightly to the side). The upper body submerges, while the extended legs sweep across the water's surface in the direction opposite the wall. Then the swimmer quickly bends the legs at the hip joints (as if trying to touch the forehead with the knees). The hips follow the body into the water, the knees bend at the knee joints, and the feet are placed against the wall with acceleration. At the moment the feet make contact with the wall, the swimmer is in a side-lying position, with arms directed upwards. Immediately, a push-off from the wall is performed, combined with extending the body forward and rotating it into the front-facing (prone) position.



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IIV. ORGANIZATION OF COMPETITIONS, HOLDING AND TRAINING IN REFEREEING

IV.1. Competition kinds

Sports competitions are a key factor that creates and unites the main system significantly influencing all other elements of sport. In the writings of leading theorists in sports, competitions are interpreted as the end, means, method, and model of training, serving as a powerful tool for sports management. Without competition, sports activity loses its meaning and uniqueness. The planning of the education and training process is carried out considering future competitions. The importance of competitions in popularizing swimming is to attract the necessary participants to engage in this favorite and beneficial sport. At the modern level of swimming development, any competition should stand out with the following: precise organization and conduct, objectivity of refereeing, and the interest of participants and spectators.

Based on goals and objectives, the following types of competitions are distinguished: Olympic Games, championships, cups, matches, and qualifiers. They are divided by level into international, national, regional, and district competitions. Swimming competitions are categorized into individual and team events. In individual competitions, results and placements are accounted for each participant separately. In individual-team competitions, results and placements are counted for individual participants as well as for the team as a whole. In team competitions, results are counted only for the teams. The physical fitness of swimmers and their ability to perform swimming techniques are monitored and evaluated. Types of competitions include: individual, team, and individual-team championships, qualifying competitions, and competitions where sports levels and titles are recommended. The types and program of competitions are determined according to the competition regulations. The competition regulations are developed by the organizer of the competition. The competition regulations include:

1. Purpose and objectives of the competition.

2. Venue and date of the competition.
3. Participants in the competition.
4. Competition program.
5. Conditions for conducting the competition.
6. Method for determining winners.
7. Awarding winners and prizewinners.
8. Registration procedure for competition participants.
9. Material support for the competition.

Competitions are organized according to the age and physical condition of the athletes. Swimming competitions, in accordance with the recommendations of the swimming federation FINA, are divided into the following participant groups:

1. Group - Women and Men.
2. Group - Juniors (Boys and Girls).
3. Group - Youth (Boys and Girls).
4. Group - Adolescents (Boys and Girls).
5. Group - Children (Boys and Girls).

The age of competition participants is determined by their birth date. The age of participants is specified in the competition regulations. Athletes may only participate in competitions if they have passed a medical examination and obtained permission from a doctor. According to the competition regulations, the following factors are considered for participation: sports training, sports levels, age of athletes, and affiliation with sports and public organizations and associations. Young athletes with high training performance are allowed to participate in adult competitions. Additionally, permission from the competition doctor, chief organizer, head referee, and coach is required.

Duties and rights of competition participants:

Duties of Competition Participants:

1. To know the competition rules and strictly adhere to them.
2. To follow the rules for walking in sports facilities and using sports equipment.
3. To arrive at the sport venue and participate in the competition according to the referee's instructions.
4. To register with the referee on time.

5. To timely follow all instructions and orders from the referees during the competition.

6. To participate in doping control as recommended by competition officials; any athlete who refuses to participate in doping control will be disqualified from the competition, and their results will be annulled.

Competition participants have the right to appeal to the referee panel through team representatives. A competition participant cannot serve as a referee during the competition. Clothing of Competition Participants: Participants' clothing must be tidy. For demonstrations or award ceremonies, all team members are required to wear the same outfit. In international competitions, participants' clothing must bear the national emblem, while in national competitions, it should include regional, association, and sports team emblems. In competitions between teams, athletes must display the emblem of the public or organization they represent. Men, adolescents, and boys are allowed to compete in swimming attire, while women, girls, and young girls are permitted to compete in closed swimming suits. Swimming outfits must not be made of transparent material. It is prohibited for swimming attire and athletes' sports uniforms to have more than two advertising logos, and the size of these logos must not exceed 20 square centimeters. Swimmers who do not comply with the above rules and requirements may be disqualified from participating in the competition by the chief referee and referee. Each team will have its own representatives in sports competitions. This representative is considered the official spokesperson for the team. They are responsible for ensuring that team members adhere to competition rules, maintaining the athletes' health, and providing timely support. Team representatives participate in all meetings held for representatives and communicate the conclusions and decisions to team members. Team representatives do not have the right to interfere with or oppose the orders of the competition referees and organizers. The team representative addresses all issues and questions to the chief referee, referee, and their deputies. Team representatives who do not comply with these requirements may be relieved of their duties according to the decision of the chief referee or referee. The coach or team captain may also fulfill the duties of a team representative. This must be communicated

to the chief referee or referee during the athlete registration process. The team representative has the right to oversee the competition and obtain information and competition statements from the referees' panel, as well as from the information referee and secretary. The program for friendly matches or competitions held by educational institutions may be as follows:

1. Participant demonstration.
2. 100 meters swimming in breaststroke (Women).
3. 100 meters swimming in breaststroke (Men).
4. 100 meters swimming in backstroke (Women).
5. 100 meters swimming in backstroke (Men).
6. 100 meters swimming in freestyle (Women).
7. 100 meters swimming in freestyle (Men).
8. Demonstration dives into the water from the platform and springboard.
9. 4x50 meters freestyle relay (Women).
10. 4x50 meters freestyle relay (Men).
11. Final demonstration of participants.

IV.2. Teaching competition rules. Judges

- Referee Panel

- In small-scale swimming competitions, the referee panel includes the following members: chief referee, starter, judge at the finish line, referee with participants, technical swimming judge, turn judge, chief timer, timekeepers (according to their number of lanes), and secretary. Let's review the duties of each.

Chief Referee:

- Organizes the preparation of the pool for the competition;
- Assigns judges to their positions;
- Ensures the safety of the competition (involvement of medical personnel and, in mass competitions, lifeguards);

• Checks the readiness of referees for the start of the competition and conducts a seminar with them;

• Oversees the performance of referees' duties and resolves any disputes that arise during the competition.

Starter:

• Gives the start signal to the swimming participants;

• Determines the correctness of the start.

The starter takes position by the pool, approximately 5 meters from the starting area to give commands.

Finish Judge:

- Determines the order (sequence) in which participants reach the finish;
- Provides information to the chief timer about the order in which participants finish.

Chief Timer:

- Organizes the checking of stopwatches before the start of the competition;
- Distributes timers and checks their ability to operate stopwatches;
- Records the specified times on the participants' cards;
- Verifies the stopwatch readings against the order in which participants finish;
- Reports to the starter about the readiness of the timers.

Timekeepers:

- Enter the stopwatch times upon the start command;
- Stop the stopwatches when the swimmer touches the wall of the swimming pool.

Secretary:

- Is responsible for administrative work and handles applications and documents;
- Distributes participants across heats and lanes, prepares the start protocol;
- Evaluates results (according to placements or score tables);
- Prepares the final report of the competition.

The judge in front of the participants checks the names on the cards and calls them to the start; leads the participants to the starting point.

The technical swimming judge ensures that participants comply with the competition rules regarding a specific swimming technique.

The turn judge monitors the execution of turns in accordance with the competition rules.

Official Competitions: If participants have low swimming preparedness, the competition may be conducted under simplified rules and with fewer judges involved.

Duties of the Referees. Chief Referee

The chief referee must fully oversee and control all referees, confirm their assignments, and provide instructions regarding any special questions or specifics related to the competition rules. They must ensure compliance with all FINA and WFTU rules and decisions and resolve all issues that arise during the competition that are not specifically covered by the rules.

– Has the right to intervene in the competition process at any stage to ensure compliance with the competition rules.

– In emergency situations that may threaten the safety of athletes and referees, they may stop the competition in collaboration with the safety referee.

– Must resolve all disputes that arise during the competition.

– Must make a decision if there is a discrepancy between the referees' decisions and the recorded times.

– Should signal to athletes about the approaching start using a raised flag and short whistles, and indicate the start when athletes are ready.

– Must disqualify swimmers for rule violations they personally observed or that another authorized referee reported.

– Must check the presence of all necessary referees for the competition at their positions. If a referee is absent, unable to work, or cannot perform their duties, the chief referee may replace any referee. If deemed necessary, they may appoint additional referees.

– Before the start of the competition and after its conclusion, they must obtain reports from the referee regarding the registration of participants, the secretary, the distance judge, and the safety referee.

Assistant Referee

The assistant referee must check each referee assigned to their position by the chief referee and ensure that all necessary referees are present for the competition. With the referee's permission, they may replace any referee who is absent, unable to work, or cannot perform their duties. If deemed necessary, they may appoint additional referees with the chief referee's approval.

- Before the start of the swimming events, they must receive all reports from participants in front of the chief referee's assistants for distance and safety, and inform the referee of their composition 15 minutes before the designated start time.
- Conducts the draw ceremony for the swimming referees and assigns them to the appropriate escort boats.

Starter

- Must give the start signal after receiving a signal from the chief referee in accordance with rule 22.

Chief Timer

- Must assign at least two timers at the start and finish areas.
- Must check the clocks so that everyone can synchronize their stopwatches with the official competition timer at least 15 minutes before the start of the competition.
- Must collect cards from each timer that show the recorded time for each athlete and check the accuracy of their stopwatches if necessary.
- Must register or verify the official time on each athlete's card.

Chronometrist – Judge

- Each chronometrist must record the time of the athlete assigned to them. Stopwatches must be printed so that they can be stored in memory and confirmed by the control committee.
- They must start their stopwatch at the start signal and stop it only upon the instruction of the chief timekeeper.
- Immediately after the finish, they must write down the athlete's time and number on a card and submit it to the chief timekeeper.

Note: When using an automatic timing system, manual timing must also be used additionally.

Chief Finish Judge

- Must assign judges to their respective positions.
- Must record any decision made by a judge and communicate it during the competition.
- After the swimming event ends, they must collect the signed result sheets from each judge at the finish and determine the result and placing. This information must be sent directly to the chief referee.
- After each distance, the assigned lane of each athlete must be recorded.
- After the swimming ends, they must collect remarks from each accompaniment judge regarding any observations made when athletes were moving to the track. This information must be sent directly to the chief referee.

Finish Judge

- Must be positioned at the finish line with a clear view of the finish area.
- Must record the assigned placement of each athlete after every distance.

Note: Finish judges cannot serve as timekeepers in the same competition.

Judge's Assistant

- Must be positioned on an escort boat (if available), selected by drawing lots before the start, to observe the athlete assigned to them during the course.
- Must ensure that the competition rules are followed throughout the course and, if any rules are violated, must record them in writing and inform the judge at the first opportunity.
- Must inform the athlete, upon the chief judge's instruction, that they must leave the water and stop competing due to the end of the competition time.
- Must ensure that the assigned athlete follows fair play rules and does not engage in any illegal behavior toward other athletes, and if necessary, must instruct the athlete to maintain the minimum allowed distance.

Turn Judges

- Must be positioned at locations where athletes may make a turn or change direction, as indicated in the documents and during the pre-start meeting.

- Any rule violations at the turn must be recorded, written on a report sheet, and signaled with short whistles, then immediately reported to the chief judge.

- After the competition ends, they must submit the signed report sheet to the chief judge.

Safety Judge

- Is responsible to the chief judge for all aspects of safety during the competition.

- Must inspect the entire course, especially the start and finish lines, and ensure that the course is safe and free from obstacles.

- Must ensure that there are enough rescue boats with sufficient power available to support the escort boats during the competition.

- Before the competition starts, must present all athletes with a current map, indicating the timing of current changes and how it may affect their course navigation.

- Together with the medical judge, must inform the chief judge about their opinion regarding the competition conditions and provide recommendations on any changes to the course or how the competition should be conducted.

Medical Personnel

- Are responsible to the chief judge for all medical aspects of the competition and the condition of the athletes.

- Must inform local health authorities about the nature of the competition and, if necessary, ensure that injured individuals are taken to the hospital immediately.

Course Management Judge

- Is responsible to the organizing committee for ensuring the competition plan is followed by the athletes.

- Ensures that the start and finish lines are correctly marked and that all necessary equipment is installed and connected.

- Before the competition starts, must verify that any changes to the course are properly marked and that all turn judges are in place.

- Together with the referee and safety judge, must inspect the course and the course markers before the competition begins.

- Must ensure all turn judges are in their assigned positions before the start and report this to the chief judge.

Judge for Participants

- Must gather and prepare competitors before each heat and ensure all athletes are present for the final meeting.

- Must ensure that each athlete receives the correct identification number, trims their fingernails and toenails, and does not wear any jewelry, including watches.

- Before the start, must ensure that all registered athletes are present in the pre-start assembly area.

- When notified that the start is imminent, must inform athletes and judges at regular intervals of the remaining time, especially during the last 5 minutes before the start.

- Is responsible for ensuring that the clothing and equipment of all athletes remaining at the start area are transported to the finish and kept safe there.

- At the finish, must ensure that all athletes exiting the water have access to necessary items for their well-being, in case their coaches or medical staff have not yet arrived.

Secretariat

- Chief Secretary:

- Require an insurance policy for all participants swimming the distance;

- Record results on the score sheet, register those who retire from the race, and calculate team results;

- Collect completed forms from each judge with their conclusions and determine the final distribution of places that must be submitted directly to the chief referee;

- Prepare all materials and documents for the competition (accepting applications, assigning numbers, preparing the start protocol), publish the

current and final results of the competition, and compile a technical report on the competition;

- Responsible for the correct documentation of competition records. Provides information to the press about the competition with the permission of the chief referee.

Secretary:

- Register the disqualification of athletes from a distance, enter results into official forms, maintain the prize list of teams;
- Inform the chief referee of any rule violations, record them on the card with the referee's signature, indicating the distance and the nature of the violation.

Start Referee

- All open water swimming competitions must start with a signal from the start referee, at a depth and location where all athletes are present either on the start platform or in the water;
- When starting from a platform, the athlete must take the position assigned by drawing lots;
- The referee must notify athletes and officials at regular intervals, every 5 minutes, about the remaining time until the start, beginning from the last 5 minutes before the start;
- Depending on the number of submitted applications, the competition must be divided into men's and women's swimming events. Men's swims must always take place before the women's;
- The starting line must be clearly marked either by an elevated sign above the water surface or a temporary fixture at water level, which is then removed;
- The chief referee, by raising a flag above their head and blowing a short whistle, signals the approaching start and, with a hand gesture using the flag directed at the starter, indicates that the swimmers are now under the control of the starter;
- The starter must be positioned so that they are clearly visible to all competitors;
- At the start command, competitors must take their starting positions. When using a start platform, at least one foot must be at the front edge of

the platform. If no platform is used, all athletes must line up along the starting line;

- The starter gives the start signal once all athletes are considered ready;
- The start signal must be audible;
- If, in the opinion of the chief referee, an athlete gains an unfair advantage at the start, the offending athlete will receive a yellow or red flag in accordance with rule 25.

Chief secretary, deputy chief secretary, and secretaries

- The chief secretary, deputy chief secretary, and secretaries must keep minutes of the judges' panel meetings and prepare all materials and documents for the competition: accept technical applications, maintain the card index, involve participants if applicable, prepare the start protocol, and, in the absence of cards, obtain lists of athletes with the greatest victories from team representatives. During the competition, the secretary must announce current and final results, and after the event ends, compile a technical report on the competition.
- After one-day or longer competitions, there should be a ceremonial closing (according to a script) where team results are announced, and various awards are presented for individual and team victories.
- After the competition ends, the judges' panel holds a final meeting where the Chief referee evaluates the work of individual judges as well as the judging panel as a whole.
- The Chief referee's work concludes with a report containing final protocols and an assessment of the competition, which is submitted to the organizing body.
- The competition program for weak swimmers should be simplified (for example, by shortening the race distance and simplifying swimming techniques).
- When organizing children's competitions, the following recommendations should be observed: the competition should start at a convenient time of day so children can safely reach the pool after school. The competition program and conditions must be designed to avoid possible

emotional and physical overloads for children of this age. Members of the judges' panel, especially those interacting with the participants, should be attentive and "gentler" in communication with young swimmers.

- Training competitions for participants whose swimming skills do not meet the requirements of official swimming rules should be held under simplified rules and with fewer judges, but with the mandatory presence of rescuers. In such cases, the program for weak swimmers should be simplified, the race distance shortened, and the technical requirements for performing movements should be relaxed.

- Competitions at all levels should be prepared in advance and thoroughly so that their eventual holding becomes a true celebration for participants, spectators, and all swimming enthusiasts.

- Detailed information about competition organization, duties of the judges' panel members, participants, team representatives, and the competition regulations can be found in the competition rules and specialized literature, which are revised and republished every four years by the All-Russian Swimming Federation.

Competition management. The organizing committee, approved by the organizing body of the competition, has the authority to resolve non-judging matters that do not fall under the jurisdiction of referees, judges, or other official representatives. It also has the right to delay the start time of the competitions and to issue instructions regarding exceptional situations in accordance with these rules.

At the Olympic games and World championships, the FINA Bureau must appoint the following minimum number of officials (Figure 44):

referee (1)
recorder inspector (1)
judges of swimming technique (4)
starters (2)
chief judges at turning points (1 at each end of the pool)
turning point judges (1 at each end of each lane)
chief secretary (1)
judges in front of competitors (2)
judge at the false start rope (1)

announcer (1)

Diagram 44. Composition of judges

For all other international competitions, the organizing body of the competition, in agreement with the relevant regional or international authorized organization, shall appoint the number of judges indicated above or fewer.

When an automatic timing system is not used, the number of judges must include the following: one chief timekeeper, three timekeepers per lane, and two additional timekeepers.

If three digital stopwatches per lane are not available in the absence of an automatic timing system, then a chief finish judge and finish judges must be appointed at the finish.

The swimming pool and its technical equipment for the Olympic games and World championships must be thoroughly inspected and approved by a FINA delegate together with a representative of the Technical committee before the competitions begin.

If underwater video equipment is used during television broadcasts, the equipment must be remotely operated, must not obstruct the swimmers' view or interfere with their performance, must not alter the pool's configuration, and must not block FINA's mandatory marking lines.

Judges and Referee. The referee must have full supervision and control over all judges, confirm their appointments, and provide instructions regarding all special issues or particularities of the rules related to the competitions. The referee applies all FINA instructions and decisions in practice and resolves any issues arising during the competition that are not explicitly covered by the competition rules.

The referee must intervene in all stages of the competition to ensure compliance with FINA rules and must make decisions regarding all protests that arise during the competition.

If finish judges are included in the panel and digital stopwatches are not available in the lanes, the referee must decide the placement of competitors if necessary. When an automatic timing system is functioning, its data must be taken into account according to the established procedure.

The referee verifies that all officials necessary for conducting the competition are in their designated positions. If an official is absent, unable to perform their duties, or incapable of continuing, the referee may replace them. The referee may also appoint additional judges if deemed necessary.

Before each race, the referee gives a special signal to the swimmers using a series of short whistles, indicating that they should remove all clothing except for the swimming costume. Then, a long whistle signals swimmers to step onto the starting platform (or, for backstroke and medley relay, to immediately enter the water). Upon the second long whistle, swimmers in backstroke or medley relay events must return to their starting positions without delay.

When both the swimmers and officials are ready for the start, the referee extends an arm toward the starter and keeps it extended until the starting signal is given, indicating that the swimmers are now under the starter's control.

The referee must disqualify any swimmer who commits a rule violation that the referee has personally observed. The referee may also disqualify a swimmer if another authorized official reports a violation. All disqualifications must be confirmed by the referee's decision.

Timing Inspector. The inspector is responsible for supervising the operation of the automatic timing system, including the functioning of backup time-recording video cameras.

The inspector is accountable for verifying the results printed from the computer.

They are also responsible for checking the printed results regarding relay changeovers and must report all false start cases to the referee.

To confirm a false start, the inspector may use recordings from the backup timing video system.

The inspector must monitor any withdrawals from participation after the heats or finals, enter the results into official forms, maintain a list of all records, and, if necessary, calculate points.

Starter. The starter must have full control over the swimmers from the moment they are handed over by the referee until the race begins (see Figure 45).

Figure 45. Start judges

The starter must report to the referee any instances where a swimmer delays the start, deliberately disobeys instructions, or commits any other

misconduct at the start. However, only the referee has the authority to disqualify a swimmer for such delays, disobedience, or misbehavior.

The starter is authorized to decide whether the start was fair and valid, but only the referee has the right to overturn this decision.

At the moment of signaling the start, the starter must stand at the side of the pool, approximately 5 meters from the starting line, in such a position that timekeepers can see and/or hear the start signal and swimmers can clearly hear the signal.

Judge of the competitors: The Judge of the Competitors must assemble the swimmers before each race.

The judge of the competitors must report to the referee any violations related to advertising (according to Rule GR 6), as well as any absences of swimmers during the roll call.

Chief judge at the turn: The chief judge at the turn ensures that the turn judges fulfill their duties during the competition.

The chief judge at the turn receives reports from the turn judges regarding rule violations and immediately informs the referee.

Turn judges: Turn judges must be assigned to the turning points of each lane in the pool (Figure 46).

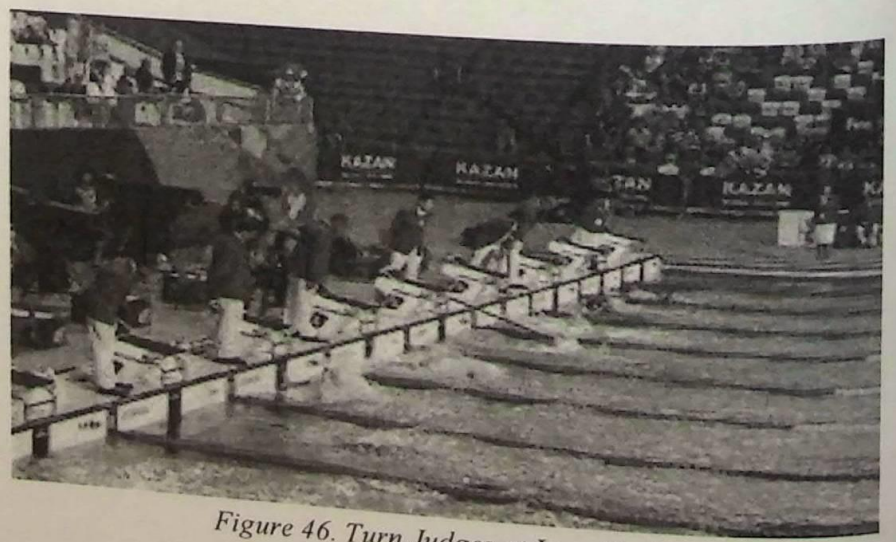

Figure 46. Turn Judges at Lane Ends

Each turn judge is responsible for ensuring that swimmers comply with the applicable turning rules from the last arm pull before the touch to the last arm pull after the turn.

The turn judge at the starting end must also ensure that swimmers comply with the relevant rules from the start until the completion of the first arm pull.

Turn judges at the finish end of the pool must ensure that swimmers finish the race in accordance with the applicable rules.

In 800 and 1500 meter races, each turn judge at the ends of the pool is responsible for counting the lengths completed by the swimmer in their assigned lane and for informing the swimmer about the remaining lengths using a numbered lap counter. Semi-automatic devices with underwater displays may be used for this purpose.

In 800 and 1500 meter races, each turn judge at the pool ends must give a warning signal to the swimmer in their lane when two lengths plus 5 meters remain. This signal must be given after the swimmer has turned and before reaching the 5-meter marker on the lane rope. The signal can be given by whistle or bell.

In relay races, each turn judge must ensure that the starting swimmer maintains contact with the starting platform until the previous swimmer touches the wall. When using automatic take-off judging equipment, it must be operated in accordance with Rule SW 13.1.

Each turn judge must report any rule violation on a signed form indicating the race, lane number, and nature of the infraction. This report must be submitted to the chief judge at the turn, who will immediately inform the referee of the violation.

Stroke Judges. Stroke Judges must be positioned on both sides of the pool.

Each Stroke Judge is responsible for ensuring that swimmers are using the correct technique as specified by the rules for the stroke being swum. They also assist the Turn Judges in observing the turns and finishes.

Stroke Judges report any rule violations by submitting signed forms to the Referee indicating the event, lane number, and nature of the infraction (see Figure 47).

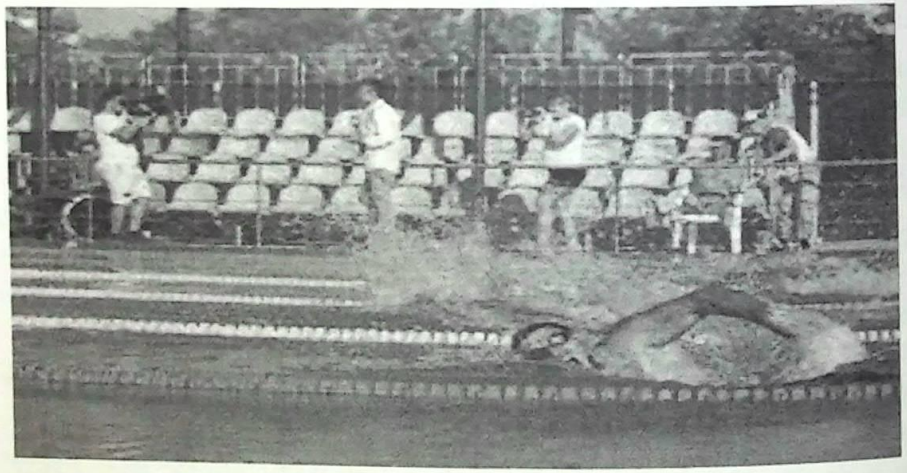

Figure 47. Stroke Judges

Chief timekeeper. The chief timekeeper assigns the positions for all timekeepers and designates the lanes for which they are responsible. Each lane must have three timekeepers assigned. If an automatic timing system is not used, two additional timekeepers must be appointed to substitute for any timekeeper whose stopwatch fails or who is otherwise unable to record a time during the race. When three digital stopwatches are used per lane, results and placements are determined based on their recorded times.

The chief timekeeper collects the time cards from each timekeeper and, if necessary, checks their stopwatches.

The chief timekeeper must record or verify the official time for each lane.

Timekeepers

Each timekeeper, in accordance with SW 11.3, records the swimmer's time in their assigned lane. Timekeepers must have a certificate confirming that they have passed a check that satisfies the supervising committee.

Each timekeeper starts their stopwatch based on the start signal and stops it once the swimmer in their lane has completed the distance. The timekeeper may receive instructions from the chief timekeeper to record times for intermediate or distances over 100 meters.

After the race is finished, each timekeeper immediately writes the readings from their stopwatch onto the time cards and hands them over to the chief timekeeper. If necessary, they will also submit their stopwatches for inspection. Following the short whistle signals from the referee, they must reset their stopwatches to "zero" before the next race.

If video recording is not used for duplication during the competition, even when an automated timing system is used, it may still be necessary to appoint a full set of timekeepers.

Chief finish judge

The chief finish judge designates the position of each finish line judge and the specific area they are responsible for (Figure 48).

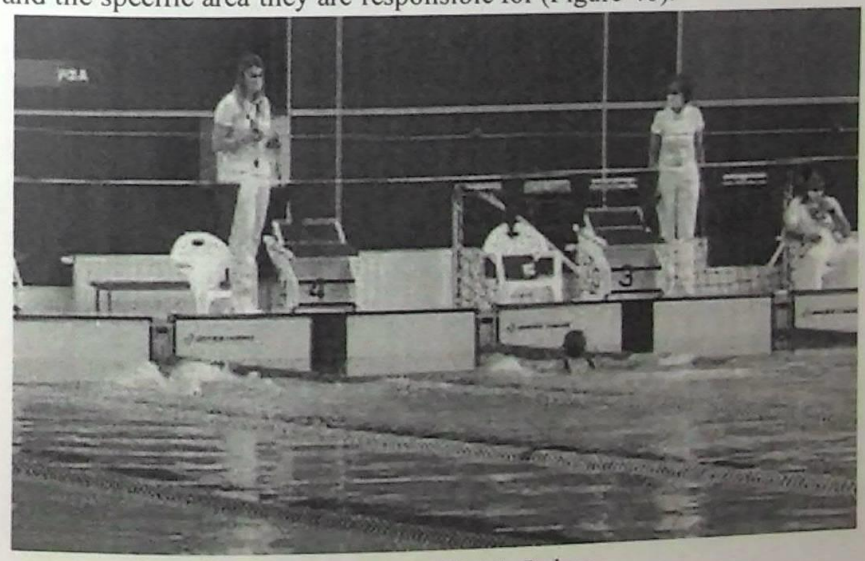

Figure 48. Finish Judges

After each race, the chief finish Judge collects the signed sheets from each finish judge indicating the placement of swimmers and compiles the race results and placement distribution, which are then submitted directly to the referee.

When an automatic timing system is used to determine the finish, the chief finish judge must report the order of finish as determined by the system after the conclusion of each race.

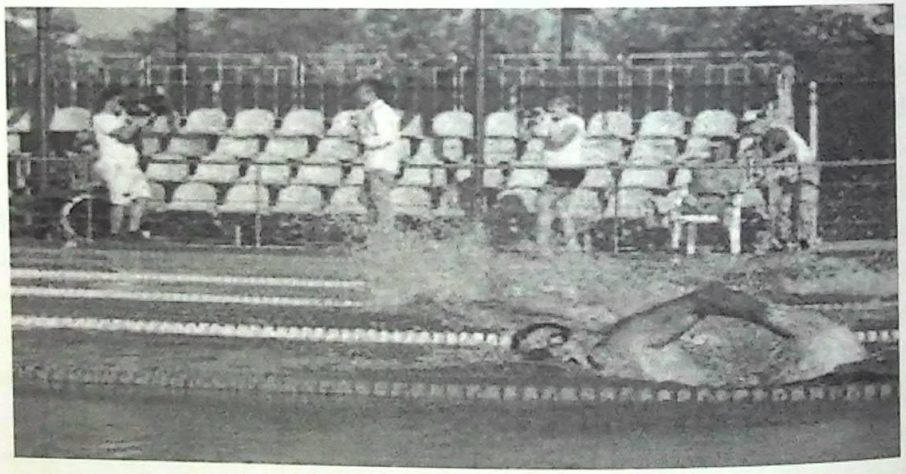

Figure 47. Stroke Judges

Chief timekeeper. The chief timekeeper assigns the positions for all timekeepers and designates the lanes for which they are responsible. Each lane must have three timekeepers assigned. If an automatic timing system is not used, two additional timekeepers must be appointed to substitute for any timekeeper whose stopwatch fails or who is otherwise unable to record a time during the race. When three digital stopwatches are used per lane, results and placements are determined based on their recorded times.

The chief timekeeper collects the time cards from each timekeeper and, if necessary, checks their stopwatches.

The chief timekeeper must record or verify the official time for each lane.

Timekeepers

Each timekeeper, in accordance with SW 11.3, records the swimmer's time in their assigned lane. Timekeepers must have a certificate confirming that they have passed a check that satisfies the supervising committee.

Each timekeeper starts their stopwatch based on the start signal and stops it once the swimmer in their lane has completed the distance. The timekeeper may receive instructions from the chief timekeeper to record times for intermediate or distances over 100 meters.

After the race is finished, each timekeeper immediately writes the readings from their stopwatch onto the time cards and hands them over to the chief timekeeper. If necessary, they will also submit their stopwatches for inspection. Following the short whistle signals from the referee, they must reset their stopwatches to "zero" before the next race.

If video recording is not used for duplication during the competition, even when an automated timing system is used, it may still be necessary to appoint a full set of timekeepers.

Chief finish judge

The chief finish judge designates the position of each finish line judge and the specific area they are responsible for (Figure 48).

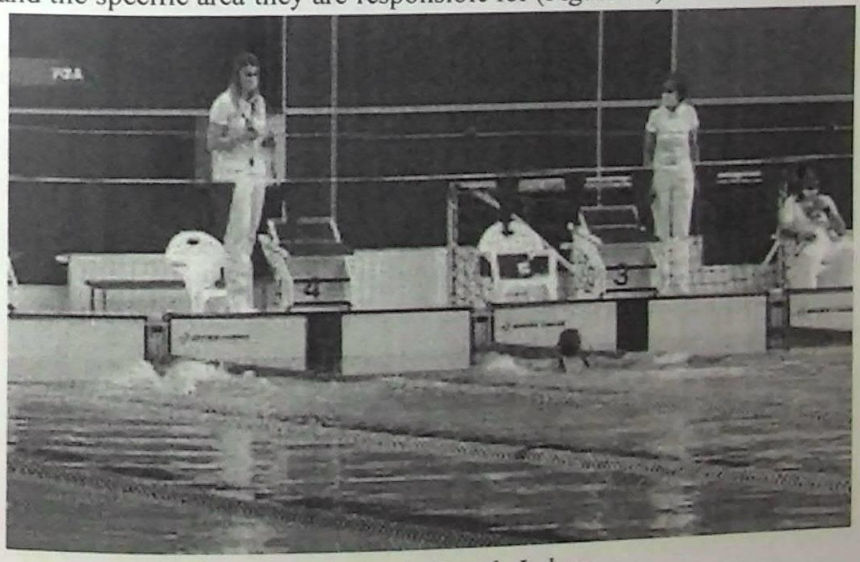

Figure 48. Finish Judges

After each race, the chief finish Judge collects the signed sheets from each finish judge indicating the placement of swimmers and compiles the race results and placement distribution, which are then submitted directly to the referee.

When an automatic timing system is used to determine the finish, the chief finish judge must report the order of finish as determined by the system after the conclusion of each race.

availability of space for starting officials, and other considerations. The organizing committee must inform the swimmers of this decision before the start of the races. Regardless of the direction of swimming, swimmers will swim in the lanes they would occupy if starting from the official starting end.

Semifinals and Finals. In semifinals, the heats must be formed accordingly.

If there is no need to conduct preliminary heats, lanes are assigned according to Rule SW 3.1.2.

If preliminary heats or semifinals have been held, the lanes are also assigned in accordance with Rule 3.1.2, but taking into account the results achieved in those swims.

If in any part of the program one or more swimmers achieve results within a 0.01 second interval, and they are to occupy the 8th or 10th (in 8- or 10-lane pools) or the 16th or 20th (in cases where two heats are qualified) position respectively, a swim-off is organized to determine the rightful qualifiers for the relevant final. Such swim-offs must be held at least one hour after the swimmers have completed that same distance. If identical results occur again, another swim-off will be held. If a tie occurs for first or second place on the ranking list, an additional swim-off may also be scheduled if necessary.

If one or more swimmers withdraw (or are disqualified) from a semifinal or final, swimmers who ranked next in line based on the classification in the previous (preliminary or semifinal) rounds may be called up to fill those spots. The heat(s) must then be restructured in accordance with Rule 3.1.2, and an updated notice with all changes and substitutions must be published.

Participants in preliminary, semifinal, and final swims must arrive at the initial call room at least 20 minutes before the start of their heat. After checks are completed, swimmers will proceed to the final call room.

In other competitions, lanes may be assigned by drawing lots.

Start. In freestyle, breaststroke, butterfly, and individual medley events, the start is initiated by a dive. After the referee's long whistle, swimmers must step onto the starting platform and remain there. Upon the

starter's command "Take your marks," they must immediately place at least one foot at the front of the starting platform and assume a starting position. The position of the hands is not regulated. Once all swimmers are stationary in their starting positions, the starter shall give the start signal.

In backstroke and medley relay events, the start is made from within the water. After the referee's long whistle, swimmers must immediately enter the water. Following a second long whistle, swimmers must return without delay to the starting position. Once all athletes are confirmed to be in their starting positions, the starter shall give the command "Take your marks." After all swimmers have assumed a stationary position, the starter shall then give the start signal.

At the Olympic games, world championships, and other FINA competitions, the "Take your marks" command must be given in English and transmitted through loudspeakers installed on each starting platform. A swimmer who starts before the signal is given shall be disqualified.

If the start signal is given before the disqualification is announced, the race will not be stopped, but the swimmer(s) in violation will be disqualified after the race is completed. If the disqualification is announced before the start signal, the signal will not be given and the remaining competitors will be called back from the starting platforms. The referee shall initiate the starting procedure in accordance with Rule SW 2.1.5 by blowing a long whistle (a second long whistle in the case of backstroke).

Freestyle Swimming. Freestyle means that a swimmer may swim in any style during the distance, except in individual medley and medley relay events. In these events, freestyle refers to any style other than backstroke, breaststroke, or butterfly.

At the end of each length and at the finish, the swimmer must touch the wall with some part of the body.

Except during the start and each turn, where the swimmer is permitted to be completely submerged for a distance of up to 15 meters, some part of the swimmer's body must break the surface of the water throughout the race. By the 15-meter mark, the swimmer's head must have broken the surface of the water.

Backstroke (Back Crawl Style). Before the start signal, swimmers must assume the starting position in the water, facing the starting platform with both hands holding the starting grips. Standing in or on the gutter or bending the toes over the edge of the gutter is not permitted.

After the start and after each turn, the swimmer must push off and swim on their back throughout the race, except when executing a turn. The normal position on the back includes movements of the body up to a 90-degree angle from the horizontal surface. The position of the head is not regulated.

During the entire race, some part of the swimmer's body must break the surface of the water. The swimmer is allowed to be fully submerged for a distance of up to 15 meters after the start and after each turn. By the 15-meter mark, the swimmer's head must have broken the surface of the water.

At the turn, some part of the swimmer's body must touch the wall. During the turn, the shoulders may be rotated toward the breast, and after this, the swimmer may make a single arm pull or simultaneous double arm pull to initiate the turn.

At the finish of the distance, the swimmer must touch the wall while on the back.

Breaststroke. After the start and after each turn, the swimmer may take one long arm pull while fully submerged, extending to the hips. During this arm pull, one dolphin kick is permitted (this may occur during the glide, when the arms are extended forward, or immediately after the arm pull is completed; however, a dolphin kick during the glide or after the pull is not allowed). Subsequent leg movements must conform to the breaststroke technique.

From the beginning of the first arm pull after the start and each turn, the swimmer must be on the breast. Rotating onto the back is prohibited at all times. Throughout the race, the following cycle must be maintained: one arm pull followed by one leg kick. All arm movements must be simultaneous and in the same horizontal plane without alternating movements.

The arms must be pushed forward together on or under the surface of the water from the chest. Except during the final stroke before a turn, during the turn, and during the final stroke at the finish, the elbows must remain

under the surface. The hands shall be brought back under the surface of the water or on the water, but not past the hip line, except during the first stroke after the start and each turn.

During each complete cycle, the swimmer's head must break the surface of the water. The head must break the surface before the hands turn inward at the widest part of the second stroke. All leg movements must be simultaneous and in the same horizontal plane, with no alternating motion.

During the propulsive phase of the kick, the feet must be turned outward. Scissor, flutter, or downward dolphin kicks are not permitted. The feet may break the surface of the water unless followed by a downward dolphin kick.

At each turn and at the finish of the race, the swimmer must touch the wall with both hands simultaneously, either above, below, or at the surface of the water. During the last complete or incomplete cycle before the touch, the swimmer's head must break the surface of the water. After the final arm pull before the touch, the swimmer's head may submerge as long as it has previously broken the surface.

Butterfly stroke. From the start and after each turn, during the arm pull, the swimmer's body must be on the breast. Underwater dolphin kicks with the legs directed downward are permitted. Rolling onto the back is not allowed.

Throughout the race, both arms must move forward together over the surface of the water and must be brought back simultaneously.

All up and down movements of the legs must be simultaneous. The legs or feet do not have to be at the same level, but they must remain in the same relative position to each other. Breaststroke-style kicking is not permitted.

At each turn and at the finish of the race, the touch must be made with both hands simultaneously, either above, below, or at the surface of the water.

At the start and during turns, the swimmer is permitted to perform one or more leg kicks and one arm pull underwater to bring the swimmer to the surface. The swimmer is allowed to remain fully submerged for a distance of no more than 15 meters after the start and each turn. By that point, the

swimmer's head must have broken the surface. The swimmer must remain at the surface until the next turn or the finish.

Complex swimming and combined relay. In the complex swimming, the swimmer shall swim the race using four different strokes in the following order: butterfly, backstroke, breaststroke, and freestyle. Each stroke must cover one-quarter of the total distance.

In the combined relay, swimmers shall swim the race using four different strokes in the following order: backstroke, breaststroke, butterfly, and freestyle.

Each segment must be finished in accordance with the rules applicable to the respective stroke.

Swimming distance rules. All individual races must be included as independent events for both men and women swimmers.

A swimmer who swims the distance alone must complete the entire distance by themselves in order for their result to be recorded.

The swimmer must finish the race in the same lane in which they started.

In all swimming events, the swimmer must touch the wall or the turning board at the end of the pool when turning. Turns must be made from the wall; stepping or pushing off the bottom of the pool is prohibited.

In freestyle swimming or the freestyle leg of the medley relay, a swimmer standing on the pool bottom will not be disqualified as long as they do not walk along the bottom.

It is forbidden to stretch out behind the dividing lane line.

A swimmer who enters another swimmer's lane and obstructs their progress will be disqualified. If this violation was intentional, the referee must inform both the competition's organizing authority and the federation to which the violating swimmer belongs.

During competitions, athletes are prohibited from using any devices (such as fins, special gloves, etc.) that enhance swimming speed, buoyancy, or endurance. The use of protective goggles is allowed. No bindings or tapings on the body are allowed unless approved by FINA's Medical committee.

If a swimmer who is not participating in the current race enters the water before all participants have finished, they will be disqualified from further participation in the competition.

Each relay team must consist of four swimmers.

In relay swimming, if the next swimmer leaves the starting block before the previous swimmer touches the wall, the team must be disqualified.

In a relay, if a team member other than the swimmer assigned to the current leg enters the water before all swimmers from all teams have completed the distance, that team must be disqualified.

Relay participants and their swimming order must be determined before the start of the race. Each participant may swim only one leg of the relay. The team composition can be changed between preliminary and final heats, but only using swimmers officially submitted by the federation in accordance with technical regulations. A change in the swimming order that violates the designated sequence will result in disqualification. Such changes are only allowed with proper documentation and for medical reasons.

A swimmer who has completed their distance or relay leg must exit the pool as quickly as possible without obstructing other swimmers who have not yet finished. Failure to do so will result in disqualification of the swimmer or the entire relay team.

If a rule violation affects a swimmer's result, the referee may allow the swimmer another opportunity in subsequent heats. If the violation occurs in the final or last heat, a re-swim must be scheduled.

Drafting (gaining an advantage by swimming in another swimmer's slipstream) is prohibited, and no devices or methods to create such an effect may be used.

Timekeeping. The operation of the automatic timing system must be supervised by judges specifically appointed for this purpose. Data from the automatic system is used to determine winners, assign subsequent placements, and record results for each lane. The placements and results obtained via the automatic system take precedence over those determined by manual timekeepers. If the automatic timing system fails completely,

shows clearly incorrect readings, or a swimmer fails to activate the system, the times recorded by manual timekeepers will be considered official.

When using an automatic timing system, only results accurate to 0.01 seconds should be considered. Results measured to 0.001 seconds must not be used for resolving third-place ties or ranking decisions. If multiple swimmers record identical times with a 0.01-second precision, they must share the same placement. Times displayed on the scoreboard must be shown with an accuracy of 0.01 seconds.

A manually operated timing device that can be stopped by a judge is considered a stopwatch. Manual times must be recorded by three timekeepers appointed or approved by the federation of the host country. All stopwatches must be certified for accuracy and reliability by an appropriate control authority and possess a calibration certificate. Hand-timed results must be accurate to 0.01 seconds. If an automatic timing system is not used, the official manual time is determined as follows:

If two of the three timekeepers record the same time and the third differs, the two matching times are taken as the official time.

If all three timekeepers record different times, the median (middle) time is considered the official result.

If only two of the three stopwatches function, the average of their times becomes the official result.

If a swimmer is disqualified after completing or during the race, the disqualification is noted in the official results, but the swimmer's time and placement will not be displayed or announced.

In a relay, if a team is disqualified, the completed legs up to the point of disqualification must still be recorded in the official results.

In relays, the 50m and 100m split times of the first-leg swimmers must be recorded and published in the official results.

World Records:

In 50-meter pools, world records are recognized (for both men and women) in the following distances:

freestyle – 50, 100, 200, 400, 800, and 1500 meters
backstroke – 50, 100, and 200 meters
breaststroke – 50, 100, and 200 meters

butterfly – 50, 100, and 200 meters
individual medley – 200 and 400 meters
freestyle relay – 4x100 and 4x200 meters
medley relay – 4x100 meters

In 25-meter pools, world records are recognized (for both men and women) in the following distances:

freestyle – 50, 100, 200, 400, 800, and 1500 meters
backstroke – 50, 100, and 200 meters
breaststroke – 50, 100, and 200 meters
butterfly – 50, 100, and 200 meters
individual medley – 100, 200, and 400 meters
freestyle relay – 4x100 and 4x200 meters
medley relay – 4x100 meters

Relay participants must be citizens of the same country.

All records - whether set during competitions or during individual time trials in front of spectators - must be publicly announced on posters or official notices at least three days prior to the record attempt. Records set during additional swims within an official competition do not require a three-day announcement.

The length of each lane in the pool must be certified by an inspector or another official expert appointed or approved by the federation of the country where the pool is located.

If movable bulkheads are used in the pool, the lane lengths must be re-measured and certified after the conclusion of the races where results are being considered.

World records are only recognized if the results are recorded by an automatic timing system, or, in case of system failure, by a semi-automatic timing system.

World records can only be confirmed if the swimmer was wearing a swimsuit approved by FINA.

A time that is equal to the record time with a precision of 0.01 seconds is considered equivalent to the record, and swimmers who achieve such a time are called "co-holders of the record." Only the time achieved by the winner of the swim can be submitted for world record recognition. If two or

more swimmers achieve the same record time, all of them are considered winners.

Records can only be set in fresh water.

If a world record is achieved in sea water or a saltwater pool, the result is not valid.

In relay races, a swimmer in the first leg may declare an attempt to break a world record. If the swimmer completes their leg in compliance with the rules for that distance and achieves a world record time, then even if the team is disqualified in later legs, the swimmer's time remains valid.

In individual events, a swimmer may apply to attempt a world record at an intermediate distance, provided that: Their coach or representative submits a request to the referee for the intermediate split to be officially recorded, or the time is recorded using an automatic timing system. The swimmer must complete the full planned race distance, and only then can the intermediate distance time be submitted as a world record.

Applications for world records must be written on official FINA forms by an authorized representative of the competition's organizing or executive committee. The application must be signed by an official representative of the swimmer's national federation, thereby confirming that all competition rules were followed, including the requirement that the doping control result was negative (as per DC 5.3.2). The completed form must be submitted to the FINA Honorary secretary within 14 days of the record being set.

An initial notification of the record attempt must be sent to the FINA Honorary secretary within 7 days of the record being set via telegram, telex, or fax.

The representative of the swimmer's federation is responsible for sending a letter to the FINA Honorary secretary to provide information and initiate the process, including (if necessary) a confirmation that the official record form has been properly verified and signed by the authorized officials.

Upon receiving the official application and verifying all information, including confirmation of a negative doping control result, the FINA Honorary secretary must officially announce the new world record, ensure

the publication of this information, and issue a certificate to the record holder.

All records set at the Olympic games, World championships, and World cups must be automatically recognized.

If the required procedures were not followed for any reason, the swimmer's national federation may submit an application for the recognition of the record. The FINA Honorary secretary, after reviewing all the circumstances and verifying the legitimacy of the application, has the authority to approve the record.

If a world record application is approved by FINA, the FINA Honorary secretary will send a certificate signed by the FINA President and the Honorary secretary to the swimmer's federation for presentation to the record holder. In the case of a relay team setting a record, five certificates will be sent to the respective federation—one for each swimmer and one to be kept by the federation itself.

Automatic timing methodology. If an automatic timing system is used in a competition (see FR 4), the places and times determined by this system, as well as the order of exchanges in relay swimming, shall take precedence over the results determined by manual timers.

If the automatic timing system fails to operate and cannot determine the times and/or places for one or more swimmers, then:

all times and places recorded by the automatic system shall be retained.

the places determined by the officials and the manual times recorded shall be documented.

The official placements are determined as follows:

The relative placements and times of swimmers with automatic results shall remain unchanged.

If a swimmer has an automatic time but not an automatic place, their place shall be determined by comparing their automatic time with the automatic times of other swimmers.

A swimmer who has neither an automatic place nor an automatic time will be assigned a place based on the result from a semi-automatic system or the average of three manual stopwatches.

Official results shall be determined as follows:

more swimmers achieve the same record time, all of them are considered winners.

Records can only be set in fresh water.

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In relay races, a swimmer in the first leg may declare an attempt to break a world record. If the swimmer completes their leg in compliance with the rules for that distance and achieves a world record time, then even if the team is disqualified in later legs, the swimmer's time remains valid.

In individual events, a swimmer may apply to attempt a world record at an intermediate distance, provided that: Their coach or representative submits a request to the referee for the intermediate split to be officially recorded, or the time is recorded using an automatic timing system. The swimmer must complete the full planned race distance, and only then can the intermediate distance time be submitted as a world record.

Applications for world records must be written on official FINA forms by an authorized representative of the competition's organizing or executive committee. The application must be signed by an official representative of the swimmer's national federation, thereby confirming that all competition rules were followed, including the requirement that the doping control result was negative (as per DC 5.3.2). The completed form must be submitted to the FINA Honorary secretary within 14 days of the record being set.

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If the automatic timing system fails to operate and cannot determine the times and/or places for one or more swimmers, then:

all times and places recorded by the automatic system shall be retained.

the places determined by the officials and the manual times recorded shall be documented.

The official placements are determined as follows:

The relative placements and times of swimmers with automatic results shall remain unchanged.

If a swimmer has an automatic time but not an automatic place, their place shall be determined by comparing their automatic time with the automatic times of other swimmers.

A swimmer who has neither an automatic place nor an automatic time will be assigned a place based on the result from a semi-automatic system or the average of three manual stopwatches.

Official results shall be determined as follows:

The automatic results of all swimmers who have them shall be considered official results.

The official time for all swimmers without automatic results shall be the time recorded manually using three digital stopwatches or via a semi-automatic timing system.

When combining heats within the same event number, the relative ranking of the swimmers shall be determined as follows:

The relative ranking of all swimmers must be established by comparing their official results.

If a swimmer has an official result equal to that of another swimmer or multiple swimmers, then all swimmers with identical times must be awarded the same placement.

Violations of FINA swimming rules and the corresponding rule sections.

Start
Delaying the start, willful non-compliance at the start
False start
Failure to touch the wall during a turn or at the finish
The swimmer's head surfaces beyond the 15-meter mark after the start (or turn)
During the race (except during turns), turning onto the chest or body rotation exceeding 90° on the horizontal plane
The swimmer's head surfaces beyond the 15-meter mark after the start (or turn)
Failure to touch the wall during a turn. Performing two arm pulls during turn entry (breaststroke). Pushing off the wall during a turn not on the back
Failure to touch the wall at the finish not on the back
Turning onto the back at any time
Arms not moving simultaneously, not on the same horizontal plane, or alternating

During arm pull, hands pass the hip line (except for the first stroke after the start or turn). Elbows emerging from the water (except for the final pull before the turn, during the turn, and the final pull at the finish)
Throughout the full stroke cycle, the swimmer's head does not break the surface (except after start and turn). After start (or turn), performing more than one arm pull underwater and more than one leg kick while fully submerged. Legs not moving simultaneously, not on the same horizontal plane, or moving alternately
Scissor, flutter, or dolphin kicks (except permitted dolphin kick after start and turn). Feet not turned outward during the propulsive part of the kick. Touching the wall with one hand or not simultaneously with both hands. During the final full or partial stroke before the touch, the swimmer's head does not break the surface, and the final arm pull is underwater.
Turning onto the back at any time
Arm movements not above the water and not simultaneous
Legs not moving simultaneously or performing breaststroke kicks
Failure to touch the wall with one hand or not simultaneously with both hands during turn or finish
The swimmer's head surfaces beyond the 15-meter mark after start or turn. More than one underwater arm pull after the start or turn. Swimmer does not remain on the surface after the 15-meter mark until the next turn or finish
Incorrect stroke order in individual medley (butterfly, backstroke, breaststroke, freestyle)
Incorrect stroke order in medley relay (backstroke, breaststroke, butterfly, freestyle)
Did not complete the entire distance
Completed the distance in the wrong lane
Failure to touch the turning board during the turn. Pushing off the bottom or stepping on the bottom during the turn
Walking on the pool bottom

Crossing into another lane
Swimmer entered another swimmer's lane and interfered with their progress
Using devices that aid in speed, buoyancy, or endurance
A swimmer not participating in the current race enters the water – disqualification from further participation in this competition
Fewer than four swimmers in a relay
False start in relay
Swimmer not in the current leg of the relay enters the water before completion of the leg
Incorrect order of swimmers in the relay
A swimmer who completed their leg interferes with those still completing theirs
Use of drafting aids or similar performance-enhancing equipment

IV.3. Formation of groups and preparation for competitions

Preparation for competitions begins well before they actually take place and primarily involves creating a calendar and planning sports events for the year. This plan includes the name and nature of the competition, the time and place it will be held, and the organizations participating. The next organizational stage in preparing for a competition is the development of the Regulations.

The competition regulations should be concise, clear, and straightforward, and must include the following sections:

Objectives and tasks of the competition

This section outlines the goals and tasks of the competition, which can vary depending on the scale, nature, and focus of the event.

For championships, the main objectives and tasks may include:

Summarizing the results of training and sports activities for a specific period;

Identifying the strongest swimmers and/or teams (sports organizations);

Promoting the sport.

Date and Venue of the Competition

The start and end dates of the competition, participants' arrival and departure days, the city, the name of the pool, and the length of its lanes are specified.

Competition management

This section identifies which physical culture organization is directly responsible for managing the competition.

Participants of the competition

The age groups and qualifications of the participants are specified. For team competitions, the names of the participating teams and their compositions are provided.

Competition program

All distances and swimming styles are listed (separately for men and women), taking into account the age groups of the participants.

Competition conditions

The scoring system, the number of points awarded for each program item based on the number of participants, and the procedure for determining winners in individual and team events are indicated.

Awards ceremony

The types of awards for individual and team champions and prize-winners are listed.

Conditions for participant admission

It is indicated which expenses are covered by the organizing bodies and which by the organizations sending participants.

Application deadlines

It specifies where, to whom, and by when preliminary and nominal applications (including participants' personal information), as well as technical applications (showing participant distribution by distance), must be submitted.

Additionally, the regulations must be approved by the state authorities responsible for physical education and sports.

The sports event plan and the competition regulations are key documents on which the planning of training and sports activities for swimming sections is based, as well as the preparation, organization, and conduct of competitions.

The final preparation for the competition is carried out based on a plan developed for the period remaining before the competition begins. This plan includes the following areas of work:

Monitoring the preparation process for the competition;
- timely appointment and organization of the work of the panel of judges. First, the main officials are appointed—chief judge, their deputies, and the chief secretary. During this period, they all carry out a series of preparatory tasks;
- preparing the competition venue, necessary equipment, and inventory. The venue includes not only the swimming pool but also all essential utility rooms, playgrounds, and the entire area adjacent to the pool;
- providing information to spectators and fans about the upcoming competition (posters, banners, programs, invitations);
- Organizing medical services and health monitoring throughout the competition.

Every competition is a sporting event and includes the parade of participants as well as opening and closing ceremonies.

The plan for the opening and closing ceremonies is developed by the chief judge and their deputy. After coordination with the responsible staff of the organizing body, the plan is communicated to team representatives and judges.

Main documents for swimming competitions:
- nominal application for participation in the competition, signed by a physician, the head of the organization, and the head coach;
- technical program, signed by the team representative;
- participant card, which records the participant's results, ranking, placement, and points earned during the competition.

Based on these, the secretariat prepares the start protocol, which is posted on the pool's notice board before the competition begins. After the competition ends, the secretariat prepares the final report, which includes the results achieved by the participants, their placements, points, and sports classifications.

This final protocol is signed by the chief judge and the chief secretary of the competition.

After the competition concludes, the judging panel prepares a report. This report includes the name of the competition, the date it was held, the organizing body, the name of the sports facility, and the city where the competition took place.

The report also contains information about the participants (total number, including men and women; age; number of participants from each organization—men, women, coaches, total; education level; social status; sports classifications) and information about the coaches (total number, including men and women; education, including physical education background; sports qualification; work experience).

Additionally, the report provides an analysis of athletes' technical results, indicating how many athletes participated in ranking events (including a breakdown by gender), and how many met or confirmed qualification standards. The results of individual and team events, number of records set, and names of record holders are included, along with the final protocol as an appendix. Any disciplinary violations by participants and the measures taken against offenders are noted. The evaluation of the judges' performance (including distinguished judges, removals from duty or disqualifications), as well as details on medical and sanitary support during the competition, are also included. The report concludes by highlighting shortcomings in the organization and conduct of the competition and offers suggestions for their elimination, as well as recommendations for improving the training and sports facilities of the organizing body.

The report is signed by the chief judge and the chief secretary of the competition.

Based on the final documents and the judges' report, the organizing body of the competition issues an order confirming the competition results, analyzing the shortcomings in organizing and conducting the competition, and outlining measures for further development of swimming.

One of the crucial documents without which the competition cannot be held is the expense estimate, prepared by a representative of the organizing body. This

estimate must comply with the competition regulations and financial standards, and it should account for the number of participants, coaches, and judges.

IV.4. Conduct of competitions

Competitions are an integral part of the physical education process. Their significance lies in the fact that they not only reveal the athletic achievements of individuals and groups, but also serve as one of the most effective means of regularly engaging the general public in physical education and sports. Moreover, competitions are considered one of the key methods for evaluating the performance of any physical culture organization.

Depending on their goals and objectives, competitions are categorized as: championships, prize events, cup tournaments, qualifying rounds, classification meets, demonstration events, and mass wellness competitions. Based on their scale, competitions can be international, national, local, or mass events; inter-agency, inter-regional, closed (restricted to athletes of a specific team), open (open to all athletes), or complex (involving multiple types of sports). According to the method of determining winners, competitions are divided into: individual (only individual athletes' results are considered), team (only team results are counted), individual-team (both individual athletes' and teams' results are recognized).

As competitions represent a specialized form of training, the conditions under which they are conducted must meet the requirements set for any swimming class. Given the modern level of swimming development, competitions of any scale must be distinguished by: clear organization and execution, objective judging, engagement and interest from both participants and spectators.

Preparation for a swimming competition begins with the development of a sports events calendar. This annual schedule specifies the name and purpose of the competition, its dates and location, as well as the participating organizations. The calendar must be compiled taking into account the major competitions held in the country. It should also reflect mass cultural and recreational events for various age groups, conducted at physical education centers, residential areas,

camps, public swimming areas, and other venues. Direct preparation for the competition is carried out in accordance with the plan, which includes: monitoring the preparation process, timely engagement and organization of the panel of judges, preparing the venue for the competition, informing and attracting public interest in the event, organizing medical supervision and providing medical assistance during the competition. In physical education collectives, preparation is carried out by the collective council and the section bureau with the involvement of active members of the physical education team. For large-scale competitions, special organizing committees are created.

The competition is conducted by a panel of judges, usually appointed 1–3 weeks before the event. The judges' qualifications must match the significance of the competition. The number of judges depends on the scale of the event, the number of participants, and the level of technical support available. The minimum number of judges can be between 7–10 people, including: chief judge, medical officer, secretary, starter, turn judge, technique judge, three or four timekeepers. During stages I and V of the standards (swimming without timekeeping), a starter, finish judge, and medical officer are sufficient.

To improve the quality of the competition, a briefing session is held a few days before the event with the entire panel of judges.

The chief judge and their assistant are responsible for checking the suitability and readiness of the competition venue.

The main documents for the competition are the applications. Within the designated deadline, applications must be submitted by the participating organizations to the panel of judges or to a specially formed credentials committee.

The starting order of participants is determined either by drawing lots or based on the sports results they have provided. For the convenience of conducting the competition and recording sports results, a card is prepared for each participant.

The draw consists of first assigning each participant a number for their swimming heat, and then determining their lane number. If the participants' levels of sports preparedness are known, then heats are formed with athletes of approximately equal performance levels, and only the lane numbers are determined by drawing lots.

The competition should be a celebration for both participants and spectators. Therefore, it is very important to thoroughly prepare for the ceremonial aspects: opening and closing parades, the formal part, the awarding of winners, and meetings between participants and guests. The parade is led by the most prominent judge.

Judges and participants march in separate columns, and the teams of participants enter either in the order of placement in the same competition from the previous year or, if the competition is being held for the first time, in alphabetical order. At the head of each team are the team representative, the team coach, and the participants—first the women, then the men. Participants involved in the first heat of the competition should be excused from the parade. Once the parade is formed, the parade leader gives a report and the parade host delivers a welcoming speech. Then the ceremonial raising of the competition flag takes place, followed by the organized departure of the participants. At the conclusion of the competition, the teams re-enter the parade in the order of their final placements. The chief judge summarizes the competition results. The ceremony concludes with the lowering of the flag and the organized departure of participants and judges.

Judging at the competition must be carried out in full accordance with the swimming competition rules, which outline the requirements for participants, the responsibilities of judges, and the rules for conducting the event.

The general process of competition evaluation is as follows: The judge receives the participants' cards from the competition secretary and, after announcing each participant's number, leads them along the pool and hands the cards to the announcer judge, who introduces the swimmers to the audience.

Once the timers are ready, the starter gives the initial command ("Participants must take their positions!" or a whistle), followed by the preparatory command ("Get ready!" or a second whistle). At this point, the swimmers take their positions at the front edge of the starting block. After confirming that all participants are ready, the starter gives the final command ("Go!" or the sound of a starting device), at which moment the timers activate their stopwatches.

If one or more participants jump the start, they are disqualified. Technique judges ensure that participants swim the distance correctly. Turn

judges and finish judges monitor the execution of turns and the proper touching of the finish line, respectively. In the event of a rule violation, these judges submit written reports to the chief judge, indicating the participant and the specific infraction.

At the end of the distance, the swimmer must touch the turning board (in freestyle with any part of the body, in backstroke with one hand, in breaststroke and butterfly with both hands simultaneously). Timers stop the stopwatches at that moment. The time for the first finisher is recorded by three timers. Additionally, the order in which swimmers finish is determined by the finish judges.

The chief judge records the results of the swim on each participant's card and gives them to the announcer judge to announce the results to the participants and spectators. Once all heats are completed, the chief secretary calculates individual and team results and provides them to the announcer judge for announcement. Team or individual scoring is conducted according to the regulations of the specific competition. The results are recorded in the final report, confirmed at the judges' meeting. Within three days after the competition ends, all documentation and the chief judge's report on the competition must be submitted to the organizing organization.

If the training venue or swimming exercises of the competitors do not meet the requirements of the official swimming competition rules, the competition may be held under simplified rules and with fewer events. In such cases, the competition program for weaker swimmers should also be simplified (for example, by shortening the race distances and simplifying the swimming techniques).

The water program of a day of leisure can be very diverse, but it is important that it is enjoyable, promotes physical education and sports, and is appropriate for the participants' age and physical condition. The holiday program usually includes sports, demonstration, and entertainment segments. The sports part should include the most exciting types of competitions: short-distance swimming, relay races, diving, water polo matches, mass starts, meeting performance standards, team events performing various swimming exercises, and more. For demonstrations, it is advisable to invite leading coaches and athletes from the city, district, sports schools, physical education teams, or

sponsoring organizations. The demonstration part may include swimming by athletes at specific distances, showcasing techniques of various swimming styles, performing underwater sports exercises, performances by synchronized swimming representatives, demonstrations of drowning rescue techniques using swimming, and instructional sessions on swimming led by a coach, among others. The entertainment segment may include comic relay races, attractions, funny jumps, or entire dramatized performances.

Decorations for the water festival should include distinctive and colorful costumes for participants, decorated equipment, and embellishment of the entire celebration area.

It is advisable to inform everyone about the holiday in advance through radio announcements, posting bright advertisements, and distributing beautifully designed invitations to potential participants.

A sound system and musical accompaniment are very important for effectively conveying the holiday's atmosphere and for directing the flow of all performances.

The significant promotional and educational impact of sports events on youth requires their organizers to possess competence in physical education and sports, a strong sense of artistic taste, and high pedagogical skill.

Control questions:

1. Describe the types of competitions.
2. Provide information about conducting competitions.
3. State the duties of referees.
4. Describe the structure of the Competition Regulations.

GLOSSARY

Абсолютная скорость плавания – максимально возможная доступная скорость развиваемая пловцом за относительно короткое время и на коротком отрезке.	**Suzishda absolyut tezlig** – qisqa vaqt ichida va masofaning qisqa bo'lagida suzuvchining mumkin bo'lgan maksimal tezligi.	**Absolute speed of swimming** - the greatest possible accessible speed developed by the swimmer for rather short time and on a short piece.
Автоматизм движений – движения выполняемые спортсменом без текущего контроля сознания.	**Harakatlarning avtomatlashishi** – joriy idrok nazoratsiz sportchi tomonidan bajariladigan mashqlar.	**Automatism of movements** - movements carried out by the sportsman without current control of consciousness.
Адаптация – приспособление организма или отдельных его систем к условиям меняющеёся среды, величине и характеру физической нагрузки.	**Adaptasiya** – butun organizm yoki uning alohida tizimlarini muxitning o'zgarish sharoitlariga, jismoniy yuklamaning harakteri va kattaligiga moslashuv.	**Adaptation** - the adaptation of an organism or its separate systems to conditions changing environments, to size and character of physical activity.
Акселерация – ускорение роста и развития детей и подростков.	**Akseleratsiya** – bolalalar va usmirlarning o'sish va rivojlanishining tezlashuvi.	**Acceleration** - acceleration of growth and development of children and teenagers.
Брадикардия - сниж ение частоты сердечных	**Bradikardiya** – yurak qisqarish sonining	**Bradycardia** - decrease in frequency of warm reductions

сокращений менее 60 ударов в минуту.	daqiqasiga 60 martadan kamayishi.	less than 60 blows in a minute.
Быстрота – физическое качество характеризующее быстродействие.	**Tezkorlik** – tez harakatlanishni harakterlovchi jismoniy sifat.	**Speed** - physical quality characterizing speed.
Варианты техники – индивидуальные особенности выполняемых движений.	**Texnika variantlari** - bajarilayotgan harakatlarning individual hususiyatlari.	**Technics variants** - specific features of carried out movements.
Вариативность техники - способность спортсмена изменять свои двигательные действия, не нарушая их эффективности.	**Texnika variativligi** – sportchining o'z harakat faoliyatini unug samarasini buzmasdan o'zgartira olish qobiliyati.	**Variability of technics** - ability of the sportsman to change the impellent actions, without breaking their efficiency.
Восстановление – постепенный переход физиологических и биохимических функций к исходному состоянию после выполнения работы, после физической нагрузки.	**Tiklanish** – ish faoliyatni yoki jismoniy yuklamani bajargandan keyin fiziologik va biomexanik funksiyalarning dastlabki holatga muntazam o'tishi.	**Restoration** - gradual transition of physiological and biochemical functions to an initial condition after work performance, after physical activity.
Выносливость - способность человека длительно выполнять работу без снижения ее интенсивности. Измеряют выносливость в основном одним способом — временем работы до отказа человека поддерживать заданную интенсивность, вследствие невозможности преодолеть	**Chidamkorlik** – insonning biron ish faoliyatni uning shiddatini pasaytirmasdan uzoq vaqt bajara olish qobiliyati.	**Endurance** - ability of the person is long to perform work without decrease in its intensity. Measure endurance in the basic one way - an operating time to the full the person to support the set intensity, owing to

за счет волевого усилия усталость		impossibility to overcome at the expense of strong-willed effort weariness.
Вязкость воды – это её свойство оказывать сопротивление усилиям на сдвиг.	**Suvning yopishqoqligi** – harakatlanishga qarshilik ko'rsatish hususiyati.	**Viscosity of water** is its property to show resistance to efforts to shift.
Гидродинамика – изучает взаимодействие сил водной среды и тела при движении.	**Gidrodinamika** – suv mixiti va harakatda tananing o'zaro kuchini o'rganadi.	**The hydrodynamics** - studies interaction of forces of the water environment and a body at movement.
Гидростатика – изучает взаимодействие сил водной среды и тела в неподвижном состоянии.	**Gidrostatika** – suv muxiti va tananing suvdagi harakatsiz holati o'zaro kuchini o'rganadi.	**The hydrostatics** - studies interaction of forces of the water environment and a body in a motionless condition.
Гидродинамическое сопротивление – общая сила сопротивления воды телу при его поступательном движении.	**Gidrodinamik qarshilik** –tananing kelish harakatida suv qarshiligining umumiy kuchi.	**Hydrodynamic resistance** - the general force of resistance of water to a body at its progress.
Динамометрия – в антропологии и медицине измерение силы мышц человека.	**Dinamometriya** – antropologiya va tibbiyotda insosn muskul kuchini o'lchash.	**Dinamom** - in anthropology and medicine measurement of force of muscles of the person.
Иммунитет – способность организма противостоять действию повреждающих агентов;	**Immunitet** - organizmning buzuvchi agentlarga nisbatan qarshilik ko'rsatish	**Immunity** - ability of an organism to resist to action of damaging agents;

защитная реакция организма.	xususiyati; organizmning ximoya reaksiyasi.	protective reaction of an organism.
Координация движений - характеристика двигательных действий, связанная с управлением согласованностью и соразмерностью движений.	**Harakatlar koordinasiyasi** – harakatlarning kelishkanligini boshqarish bilan bog'liq harakat faoliyati harakteristikasi.	**Coordination of movements** - the characteristic of impellent actions connected with management by a coordination and harmony of movements.
Координационные способности - обеспечивают двигательному действию устойчивость опорных частей тела, синергетическую плавность всех звеньев участвующей кинематической цепи, экономичность мышечных затрат, пространственную точность, стабильность и т.п.	**Koordinasion qobiliyatlar** – harakat faoliyati tanannig tayanch qismlari, kinematik bog'lamda ishtiroq etuvchi barcha zvenolar sinergetik ravonligini, muskul sarfi tejamini, makondagi aniqlikni, barqarorlikni va shu kabilarni ta'minlaydi.	**Coordination abilities** - provide to impellent action stability of basic parts of a body, синергетическую smoothness of all links of a participating kinematic chain, profitability of muscular expenses, spatial accuracy, stability, etc.
Лобовое сопротивление воды – сила давления встречного потока воды на фронтальную поверхность движущегося тела.	**Suvning ro'para qarshiligi** – tana harakati frontal yuzasida suvning ro'paradan kelayotgan oqimi bosim kuchi.	**Front resistance of water** - pressure force of counter water stream on a face-to-face surface of a moving body.
Ловкость – физическое качество человека, позволяющее быстро и точно видоизменять движения и	**Epchillik** – o'zgarayotgan vaziyatga bog'liq holda harakat faoliyatini aniq va tez o'zgartira olishini	**Dexterity** - the physical quality of the person allowing quickly and precisely to alter movement

двигательные действия в зависимости от меняющейся ситуации.	tavsiflovchi insonning jismoniy sifati.	and impellent actions depending on the changing situation.
Плавучесть – способность тела погружённого в воду оставаться на поверхности.	**Suza olish qobiliyati** - suvga botishda tananing suv yuzasida qolish xususiyati.	**Buoyancy** - ability of a body shipped in water to remain on a surface.
Плотность воды – это её масса в единице объёма.	**Suvning zichligi** – hajm kattaligida uning massasi.	**The water density** is its weight in volume unit.
Сжимаемость воды – это её свойство уменьшаться в объёме при повышении давления.	**Suvning siquvchanligi** – bosim oshishida uning hajmi kamayishi xususiyati.	**Compressibility of water** is its property to decrease in volume at pressure increase.
Сила мышц - способность за счет мышечных сокращений преодолевать внешнее сопротивление или противодействовать внешним силам.	**Muskul kuchi** – tashqi qarshilik yoki yashqi kuchlarni muskul qisqarishi evaziga yenga olish qobiliyati.	**Force of muscles** - ability at the expense of muscular reductions to overcome external resistance or to counteract external forces.
Скорость плавания – характеристика движения тела пловца, численно равная при равномерном движении отношению пройденного пути к промежутку времени	**Suzish tezligi** – bir hil harakatda bosib o'tilgan yo'ning vaqt birligiga nisbati, suzuvchi tana harakati tavsifi.	**Speed of swimming** - the characteristic of movement of a body of the swimmer, numerically equal at uniform movement to the relation of the passed way to a time interval
Темп (Т) – количество циклов движений, выполняемых за единицу времени. Это	**Temp (T)** – vaqt birlik ichida bajariladigan harakat sikllar soni.	**Rate ()** - quantity of cycles of the movements which are carried out for a

защитная реакция организма.	xususiyati; organizmning ximoya reaksiyasi.	protective reaction of an organism.
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двигательные действия в зависимости от меняющейся ситуации.	tavsiflovchi insonning jismoniy sifati.	and impellent actions depending on the changing situation.
Плавучесть – способность тела погружённого в воду оставаться на поверхности.	**Suza olish qobiliyati -** suvga botishda tananing suv yuzasida qolish xususiyati.	**Buoyancy -** ability of a body shipped in water to remain on a surface.
Плотность воды – это её масса в единице объёма.	**Suvning zichligi –** hajm kattaligida uning massasi.	**The water density** is its weight in volume unit.
Сжимаемость воды – это её свойство уменьшаться в объёме при повышении давления.	**Suvning siquvchanligi** – bosim oshishida uning hajmi kamayishi xususiyati.	**Compressibility of water** is its property to decrease in volume at pressure increase.
Сила мышц - способность за счет мышечных сокращений преодолевать внешнее сопротивление или противодействовать внешним силам.	**Muskul kuchi –** tashqi qarshilik yoki yashqi kuchlarni muskul qisqarishi evaziga yenga olish qobiliyati.	**Force of muscles -** ability at the expense of muscular reductions to overcome external resistance or to counteract external forces.
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Темп (Т) – количество циклов движений, выполняемых за единицу времени. Это	**Temp (T) –** vaqt birlik ichida bajariladigan harakat sikllar soni.	**Rate () -** quantity of cycles of the movements which are carried out for a

величина, обратная длительности движения. Чем больше длительность каждого цикла движений, тем меньше темп, и наоборот.		time unit. It is size, return duration of movement. The more duration of each cycle of movements, the is less rate, and on the contrary.
Тонус мышечный – напряжение мышц в покое.	**Muskul tonusi** – tinch holatda muskul qisqarishi.	**Tone muscular** - pressure of muscles in rest.
Торможение – нервный процесс, приводящий к угнетению или предупреждению возбуждения.	**Tormozlanish** – qo'zg'alishni ogohlantirishda to'sqinlik qilishga olib keluvchi asabiy jarayon.	**Braking** - the nervous process leading to oppression or the prevention of excitation.
Траектория – это воображаемый след движущейся точки в пространстве.	**Traektoriya** – fazoda nuqta harakatinig qoldirgan izi.	**The trajectory** *is* an imagined trace of a moving point in space.
Шаг пловца (S) – это расстояние, на которое он продвинулся за один цикл движений.	**Suzvchi qadam (S)** – bu uning bir harakat siklida bosib o'tgan masofasi.	**The step of the swimmer (S)** is a distance on which it has promoted for one cycle of movements.

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