

Training in Running Technique for Sprint Distances Taking into Account Individual Features

Chariev Ulugbek Abdujabbarovich

Lecturer at the Department of Sports Activities and Management, Termez State University

Annotation: The article discusses the technique of sprinting and ways to improve it, taking into account the individual characteristics of the athlete. The speed of overcoming the distance in sprinting depends both on the rational ratio of the length and frequency of running steps, and on the individual technique of the athlete.

Keywords: sprinter, running technique, individual characteristics, sprinting, leg length, congenital ratio.

Introduction. Short-distance running (60 m, 100 m, 200 m, 400 m) differs from other distances by a high degree of loads and coordination of movements, as well as by the maximum speed shown in a short period of time [1]. The speed of overcoming a distance in sprinting depends both on the rational ratio of the length and frequency of running steps, and on individual technique, body stability, running straightness, and amplitude of head and body movements [2, 3].

The sprint technique consists of many elements, which at different speeds differ significantly depending on the personal characteristics of the runner [4]. Often, the erroneous execution of individual elements of the movement is an obstacle to achieving high results in running. In turn, the lack of proper running technique can lead to injury and persistent pathological disorders [5, 6, 7].

In most cases, many young sprinters have a rational movement pattern. However, there are differences from the correct technique (breeding of the feet, inclination of the body), which are associated with the disproportion of their physical and anthropometric development. The most serious shortcomings that negatively affect the result of running arise in the case of incorrect training or imitation of any type of technique [8, 9, 10].

Errors in running technique are also found among athletes of sports improvement groups. The most common errors include: errors at the start and starting acceleration, non-optimal angle of hip elevation, errors when placing the foot on the support, incorrect position of the body, enslavement of the shoulder girdle [11, 12].

The individual characteristics of a runner that can affect both positively and negatively on running technique include:

- leg length;
- mobility in the joints, especially in the hip;
- the innate ratio of red and white muscle fibers, which affect such physical qualities as speed and endurance. With an increase in the level of physical fitness, the running technique is also modified, acquiring more rational and economical forms and content [13, 14].

The individual characteristics of an athlete are clarified at the time of the survey, where they determine the load regime, possible injuries, and subjective sensations. Then, using anthropometric methods, weight and height indicators, arm length, inner thigh length, position and relation to the plane of the shoulder and pelvic skeletal belts are measured. Also of great importance is the presence of physiological and pathological deviations of the feet, which should be taken into account when selecting the load and teaching the running technique.

The biomechanics of running includes landing phases, running loads, and repulsion. In the landing phase, the heel takes on part of the load.

It is very important to extinguish the force of the heel strike on the surface. In dynamic analysis, the line of connection of the knee joint, Achilles tendon and calcaneus is studied. During landing, the foot should be in light supination, then the load on the joints will be minimal [15, 16].

In the phase when the body weight is completely transferred to one leg, it should be in slight pronation and the toe and heel should be located in the same plane relative to the knee and hip joints. If the foot turns outwards, this can lead to ankle injuries [17, 18]. At the moment of repulsion, the actions opposite to landing occur. Correct running technique also includes the tone of the muscles of the lower leg and thigh, the position of the torso and head.

When running, the overlap of the lower leg should be at the level of the horizontal line or slightly higher. The angle of flexion of the knee joint of the free leg must be greater than 90° . A strong overlap of the lower leg is also unacceptable because it can lead to a rapid overload of the working muscle. The angle of hip extension at the moment of repulsion should be in the region of $40-45^\circ$. The torso may be slightly tilted forward, but a more upright position should be sought. In order for the posture and position of the torso to be correct, you need to train the muscles of the abdomen and back.

Thus, when improving running technique, it is necessary to take into account the anthropometric data of athletes, while increasing the length and frequency of running steps, as well as the amplitude of movements of the fly leg. To identify errors in the running technique and their subsequent correction, it is necessary to compare the athlete's individual technique with the reference one, which can be done through photo and video shooting. To consolidate motor skills and the correct running technique, in each of its phases, constant monitoring by the coach is necessary, as well as self-control by the athlete, until the movement is brought to automatism.

In this context, it is interesting to imitate running movements with fixing verbal instructions on the main reference points of running technique, namely the angle of elevation of the hip, placing the foot on the support, the position of the torso and shoulder girdle. Also, an important component of the training process, in our opinion, is the introduction of ideomotor training into the training process, aimed at consolidating motor skills.

Repeated representation of a motor action by an athlete and its mental reproduction, according to Professor A. Ts. Puni, can improve the accuracy of movements by 34%. When an athlete imagines his competitive movements, processes occur in the body that are similar in nature to those that occur when performing exercises in real conditions.

Conclusions. Thus, learning the technique of sprinting is a long process that is improved during all sports activities. To achieve the best result, it is necessary to master the optimal technique, namely the most rational way to solve a motor task, while taking into account the individual characteristics of an athlete, which include: anthropometric data, functional state, physical fitness, psychophysiological characteristics. In the course of improving running technique, continuous monitoring and analysis is necessary for the purpose of subsequent correction in order to consolidate a correctly formed movement.

References:

1. Abdujabbarovich, C. U. (2022). Methodological basis for the development of special endurance in middle distance runners. *Academicia Globe: Inderscience Research*, 3(04), 529-532.
2. Abdujabbarovich, C. U. (2022). Preparation of students-flight and athletes for sprinter distances. *Modern Journal of Social Sciences and Humanities*, 4, 80-83.

3. Abdujabbarovich, C. U. (2022). Application of Innovative Technologies in the Process of Preparing Young Sprinters. *International Journal of Formal Education*, 1(10), 119-122.
4. Abdujabbarovich, C. U. (2022). Application of Innovative Technologies in the Process of Preparing Young Sprinters. *European Journal of Life Safety and Stability (2660-9630)*, 22, 46-49.
5. Saitnazarovna, R. D. (2022). Individualization of the training process of young runners on mid distance. *Modern Journal of Social Sciences and Humanities*, 4, 378-381.
6. Abdullaev, Y. M., & Yuldashevich, T. D. (2020). Creation of pedagogical conditions in the formation of volitional grades in primary school students. *Colloquium-journal*.
7. Абдуллаев, Я. М., & Турдимуродов, Д. Й. (2020). Ўсмир ёшдаги ўқувчиларда иродавий сифатларни жисмоний тарбия воситалари орқали ривожлантириш. *Современное образование (Узбекистан)*, (9 (94)), 56-62.
8. Турдимуродов, Д. (2023). Yuqori sinf o'quvchilarida qat'iyatlilik sifatini jismoniy tarbiya darslarida tarbiyalash. *Scienceproblems. uz*, 3(3), 218-223.
9. Mahkamovich, A. Y. (2022). Innovative Approaches to the Formation of the Voluntary Qualities of Students-Athletes. *International Journal of Discoveries and Innovations in Applied Sciences*, 2(2), 17-20.
10. Abdullaev, Y. (2021). Forms and methods of developing the use of folk movement games in high school students. *Mental Enlightenment Scientific-Methodological Journal*, 2021(2), 73-79.
11. Абдуллаев, Я. М., & Юлдашевич, Т. Д. (2020). Создание педагогических условий в формировании волевых качеств у учеников начальных классов. In *Colloquium-journal* (№. 24 (76), pp. 36-38). Голопристанський міськрайонний центр зайнятості.
12. Alikulovich M. K. (2022). Methodology for Carrying out Swimming Training Lessons for Children 9-10 Years Old. *International Journal of Discoveries and Innovations in Applied Sciences*, 2(2), 36-38.
13. Alikulovich M. K., & Yuldashevich T. D. (2020). Development of physical training skills and formation of willpower qualities in extracurricular activities. *European Journal of Research and Reflection in Educational Sciences Vol*, 8(3).
14. Alikulovich M. K. (2022). Mobile Games on the Water as a Means of Developing the Physical Qualities of School Children. *European Multidisciplinary Journal of Modern Science*, 4, 783-786.
15. Alikulovich M. K. (2022). Method of developing speed-strength qualities in young swimmers 12-14 years. *Modern Journal of Social Sciences and Humanities*, 4, 179-182.
16. Turdimurodov, D. Y. (2022, September). Formation of moral and volitional qualities of adolescents by means of physical education. In *International scientific conference "Innovative trends in science, practice and education"* (Vol. 1, No. 1, pp. 198-204).
17. Turdimurodov, D. (2022). Volitional qualities of a person and their formation in adolescent age. *Models and methods in modern science*, 1(14), 13-17.
18. Yuldashevich, T. D. (2023). Peculiarities of Volitional Qualities in Physical Education of Schoolchildren. *Web of Semantic: Universal Journal on Innovative Education*, 2(2), 217-220.
19. Турдимуродов, Д. Ю. (2022). Формирование у подростков волевых качеств в процессе физического воспитания. *Science and Education*, 3(7), 283-289.