

Physiological Basis of Conducting Physical Education Lessons in Special Conditions of the Outdoor Environment

Berdiyev Ghairat Ulaboyevich ¹

Abstract

In this article, there are effective ways to organize outdoor activities for schoolchildren. New methods of training in hot climates. Physico-chemical and biophysical changes occur in the skin under the influence of sunlight. One of the processes in the form of photoelectric phenomena is the bioluminescence of the skin surface, and others, for example, the formation of biochemical substances in the body that later affect physiological functions.

Keywords: *Sunlight, sports competitions, environment, exercise, muscles, organism, life processes.*

¹Physical education teacher at Termiz State Pedagogical Institute

In the Southern region where we live, we know that the climate is hot in summer and cold in winter. Therefore, it has different effects on the body of students during training and competitions.

Sports competitions and training processes are not always held in favorable conditions for the body's vital activity. Conditions that are unfavorable for the life activity of the organism destroy physiological functions along with the assimilation of physiological processes. When the ambient temperature, humidity, gas content, etc. are at an optimal level, the function of the organs and systems of the body is normal. A person feels better, his ability to work increases, he gets to work quickly, fatigue develops late, and work productivity increases.

If the conditions of training or competition disrupt vital processes in the body, i.e., the work of internal organs increases or decreases, the body temperature increases, the change in the composition of the body's internal environment exceeds the specified limit, then a person feels sick. He cannot get to work quickly, his ability to work decreases, he gets tired quickly, and his work productivity is low. In such conditions, excess energy is used to maintain the vital activity of the organism. Decreasing energy reserves in the body, as it is known, a person's high level of work ability cannot ensure that he can continue his work for a long time at the given capacity, that is, it causes him to tire faster.

Such conditions that reduce the athlete's work capacity include a number of factors of the external environment. For example, high or low temperature of the external environment, i.e. strong heat and cold, strong change in atmospheric pressure, decrease or increase in wind speed, excessive humidity, topography of the place of work, sudden changes in sunrise and sunset times (i.e. a when moving from one region to another). Such factors, along with changing the order of the body's vital processes, have a significant impact on the body's condition and ability to work. In order to reduce the negative impact of such conditions on the body, it is necessary to increase the resistance of a person to the effects of such factors. In sports, this thing is of great importance and ensures a much higher result in any conditions. For this purpose, the athlete should train in the above-mentioned conditions, one of the important tasks of adaptation is to identify the factors that negatively affect the athlete's work ability from the above-mentioned conditions and to determine the ways of the body's faster adaptation to it.

The effect of a high-temperature external environment on the body is not only a result of temperature, but also consists of processes that occur under the influence of sunlight. According to modern imagination, the sun can be considered as a self-controlled thermonuclear reactor. It turns 570 ml tons of hydrogen into gel every second. As a result of this process, an extremely large amount of radiant energy is generated, 0.5 billion of which reaches the earth. This energy consists of ultraviolet (chemical rays), visible (light) rays, and infrared (heat rays).

Most of the infrared rays that fall on the earth's surface are infrared. (60% of all light, ultraviolet rays make up 1%) biologically, the most active light is ultraviolet light, which depends on the height of the sun above the ground and the state of the atmosphere (cloudiness, dust level, humidity, etc.) Sun the light is divided into a diffused and direct incident part. Together they form sun radiation. Scattered light spreads to atmospheric water vapor and dust damage. The spectral composition of these rays consists of light, blue-violet and ultraviolet rays, and they contain little heat. Sunlight directly affects the vision analyzer and the skin. These reactions are absorbed in the form of quanta and develop photochemical reactions.

Physico-chemical and biophysical changes occur in the skin under the influence of sunlight. One

of the processes in the form of photoelectric phenomena is bioluminescence of the skin surface by secondary radiation, and others, for example, the formation of biochemical substances in the body that later affect physiological functions. The energy of photons starts from impacting the atoms and molecules bonds in the molecules of the molecule. For example, this is the mechanism of conversion of skin fat into D-vitamin.

It is known that maintaining the body temperature in a person around 36-37 C is carried out mainly through chemical (heat production) and physical (heat dissipation) mechanisms. In conditions of high temperature and strong sunlight, constant maintenance of body temperature is ensured by strengthening of physical thermoregulation. The loss of heat in the body is mainly carried out by evaporation, transmission and radiation of water in the body through the skin surface. But in conditions of high external temperature, heat loss by conduction and radiation almost does not occur, in this case, heat is mainly lost by evaporation of water from the surface of the skin, i.e. perspiration. That is why a lot of sweat is released from the body in conditions of strong outdoor temperature and sunlight. It does not allow the body temperature to rise too much.

A decrease in the amount of water in the muscles leads to a sharp decrease in working capacity. When the muscle works in high temperature conditions, the water and salt balance of the body changes as a result of strong sweating. After long-term physical work in high temperature conditions, drinking water increases the volume of blood plasma, which has a positive effect on the body by increasing the supply of nutrients to the working muscles and the release of heat from the body. Secondly, it protects a person from the danger of a hot war. Drinking low-temperature drinks is very beneficial in losing excess heat in the body, which means that part of the heat is filtered to lose the drink.

Thirdly, drinking juice during physical work increases the supply of body fluids. These are the energy sources of the body, especially during long-term physical work. The reduction of glycogen stores in the liver and muscles leads to a significant decrease in the amount of glucose in the blood.

According to Adolf, during a long walk in the desert region in the 1930s, despite consuming unlimited amounts of water and food, the body became dehydrated for 24 hours. Further tests show that after several days of heavy sweating, renal excretion of water and electrolytes is reduced.

This will end the chronic dehydration of the body and excessive loss of electrolytes.

Issues such as the performance of the muscle in high temperature conditions, the composition, amount, and time of consumption of the consumed liquid are important.

Taking this into account, it is recommended to consume various solutions and specially mixed liquids, salts, water, protein vitamin drink, water with ascorbic acid, tea, as well as vegetable and fruit drinks.

In the state requirements for the education of preschool children, it is determined that training tasks are used in different age groups. Exercise activities are determined depending on the age and development of the child. It is carried out with an individual approach to the child according to the doctor's prescription. The main means of recreation are the gifts of nature - air, water and sun baths.

It is necessary to start the air bath indoors and gradually move to open air (in the warm seasons of the year). The air bath can be measured by gradually reducing the temperature of the air or by

gradually increasing the duration of the air bath at the same temperature. It is necessary to take into account the humidity of the air and its movement. The higher these indicators are, the shorter the duration of air travel should be. Air baths taken during movement ensure direct exposure of air to bare skin during movement of children. The most appropriate and natural-looking air bath is morning gymnastics and physical education classes, which are held in the open air in rooms with open windows. Taking air baths in this way will expose the child to cold air and exercise at the same time. It is also recommended to regularly take the child for a walk every day throughout the year. During the walk, children should be busy, actively participate in it, so that they do not get cold or overheated, low-motion games should be organized with them. When the day is colder, more action games are played. Parks, avenues, and parks near the kindergarten should be chosen for children to walk outside the kindergarten.

References

1. Juraevich, B. O., & Djurabaevich, M. S. (2022). The Role Of Sport In Peoples Health. *Journal of Positive School Psychology*, 6(9), 3733-3737.
2. Daminov, I. A. (2022). UMUM TA'LIM MAKTAB O 'QUVCHILARIDA SOG 'LOM TURMUSH TARZINI SHAKLLANTIRISHNING MUHIM TOMONLARI. *Academic research in educational sciences*, 3(7), 28-34
3. Chorievna, D. Y., & Or'olovich, B. C. (2021). Opportunities to use national and movement games in physical education and athletics. *Web of Scientist: International Scientific Research Journal*, 2(05), 909-913.
4. Shaxboz, A., & Urolovich, B. C. (2023). THE EFFECTIVE INFLUENCE OF MOVING MOVING GAMES WITH 5-6-YEAR-OLD CHILDREN. *IQRO*, 2(1), 545-550.
5. Ashiraliyevich, D. I. (2022). Judo as a Means of Developing Physical Qualities and Coordinating Abilities of Students. *International Journal of Discoveries and Innovations in Applied Sciences*, 2(2), 33-35.
6. Djurabevich, M. S. (2022). Technologies for Selecting Boxers and Preparing them for Competitions. *ASEAN Journal of Physical Education and Sport Science*, 2(1), 1-8.
7. Bobokulov Chori UrolovichEshkobilov Elmurod Menglimurod's Son. (2023). STANDARDS FOR CORRECT ORGANIZATION OF INDEPENDENT EDUCATION OF PHYSICAL CULTURE EDUCATION STUDENTS. *IQRO JURNALI*, 2(1), 319-324.
8. Erikhonovich, T. F. (2022). Method of Organization Lessons of Physical Education in Secondary Schools. *European journal of innovation in nonformal education*, 2(3), 238-241.
9. Urolovich, B. C. (2023). CHARACTERISTICS OF PHYSICAL CULTURE FORMATION IN THE FAMILY. *IQRO*, 2(1), 325-330.
10. Chorievna, D. Y. (2021). Conditions for preparing future physical education teachers for professional activities on the basis of sports coaching. *Web of Scientist: International Scientific Research Journal*, 2(05), 897-900.
11. Urolovich, B. C., & Panji o'g'li, A. S. (2022). JISMONIY MADANIYAT DARSLARINI TASHKIL ETISHDA INNOVATSIYON PEDAGOGIK TEXNOLOGIYALARDAN SAMARALI FOYDALANISH YO'LLARI. *World scientific research journal*, 4(2), 126-131.

12. Mansur, U. (2023). Analysis of Boxers' Pulse Oximeter and Chronometry Ability to Perform During Boxing. *ASEAN Journal of Physical Education and Sport Science*, 2(1), 69-74.
13. Boboqulov, C. (2023). PSYCHOLOGICAL, PEDAGOGICAL AND PHYSICAL ASPECTS OF PERSONALITY DEVELOPMENT OF PRIMARY CLASS STUDENTS. *Theoretical aspects in the formation of pedagogical sciences*, 2(5), 147-149
14. Qizi, R. Z. F. (2022). ADVANTAGES OF USING PEDAGOGIC METHODS IN TRAINING STUDENTS AND YOUNG PEOPLE IN PHYSICAL EDUCATION. *European International Journal of Multidisciplinary Research and Management Studies*, 2(08), 28-30.
15. Boboqulov, C. (2023). EFFECTIVE USE OF GAMES IN TEACHING SKILLS TO ELEMENTARY SCHOOL STUDENTS. *Theoretical aspects in the formation of pedagogical sciences*, 2(4), 113-116.
16. Djurabaevich, M. S. (2022). Issues of Formation of Women's Sports in Surkhandarya. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 2(2), 448-449.
17. Urolovich, B. C. (2021). Features of the Methods used in Physical Education. *Journal of Ethics and Diversity in International Communication*, 1(6), 88-91.
18. Rakhimova Zarina Fahriddin's daughter, Jurayeva Sahiba Bakhtiyar's daughter. (2023). RESTRICTED STUDENT YOUNG PEOPLE THROUGH PHYSICAL CULTURE AND SPORTS TRAINING. SOLUTION OF SOCIAL PROBLEMS IN MANAGEMENT AND ECONOMY, 2(4), 17-21.
19. Abduqahhorovich, S. X. (2023). Strength Training in Football Training. *Web of Semantic: Universal Journal on Innovative Education*, 2(3), 138-141.
20. Menglimurodougli, A. T., & Dobilovich, S. A. (2022). PLANNING THE TRAINING OF SWIMMERS OF TRAINING GROUPS OF CHILDREN AND YOUTH SPORTS SCHOOLS. *Modern Journal of Social Sciences and Humanities*, 4, 278-281.