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Makarenko A.V., Shirin Y.V.

THE SCHOOL CHILDREN'S AGE FEATURE OF PHYSICAL CHARACTERISTICS

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Summary. Article describes the physical characteristics and motor abilities of students considering person's development. Recommendations for the rational distribution of physical strength aimed at developing of different physical skills in a lesson are given.

Keywords: physical and motor characteristics, age, functionality, development of skills, co-relation of physical strength.

Introduction. The level of human capabilities reflect the qualities that is a combination of innate psychological and morphological features with acquired during life and training experience in the use of these possibilities.

As physical qualities we understand some qualitative aspect of movement of human capabilities and individual actions. The level of development is determined not only by physical factors, but mental factors including the degree of intellectual and volitional qualities. Structural basis for the development of physical qualities is associated with progressive morphological and biochemical changes in the locomotor apparatus in the central and peripheral nervous system, internal organs.

The most intensive improvement of motor function of man is from 7 to 13-14 years. Analysis of many authors' research has shown that teenagers who regularly play sports, an increase of indicators of physical qualities for three years twice the average value growth characteristic of students who are not engaged regularly in sports.

According to F.P. Filin, in all cases where students, in addition to the lessons involved in sports clubs when the volume of activity regime is 1.5-2 hours a day, develop physical qualities more active [6].

The investigation of flexor and extensor muscles of the lower and upper extremities among students of different age and sex revealed that age-related development of different muscle groups is uneven and individually: each of them during ontogenesis goes its own way of development. Thus, for the flexors of the hand, as in other muscle groups is characterized by a constant increase with age, the absolute indicator of power. Girls 8-15 years revealed a significant increase from 9 to 10 years on the strength of the muscles of the hand and back, from 11 to 12 - the strength of the muscles of the back and legs, from 12 to 13 - the strength of the muscles of the hand and back .

Power capacity of a person is closely related to the age. The absolute power of the major muscle groups is increased from birth up to 20-30 years and then gradually begins to decline. Relative strength reaches a maximum as early as 13-14 years [4].

Development of Power in boys is largely dependent on the activity of male sex glands that produce the hormone testosterone. Puberty in girls is less dependent on the level of testosterone in the body, and therefore their power and performance does

not change significantly. Thus, by puberty (12-15 years) muscular strength of boys and girls is almost the same; with the completion of puberty (after 15-16 years), due to rising androgenic activity of male sex glands, muscle strength boys increases significantly [5].

The results of theoretical analysis suggest that in middle and high school age (from 13-14 to 16-17 years), the period of most intensive growth of maximum power must be increased as the amount of measures to improve the training effect, which greatly enhances the level of this physical quality.

Between force and speed of muscle contraction there is a versely proportional relationship.

Speed - is the person's ability in certain specific circumstances to respond immediately to a given stimulus at high speed movements performed in the absence of significant external support complex coordination of muscles in these conditions for a minimum period of time and do not require large energy.

Speed qualities are determined by factors such as heredity, age, sex, state of the neuromuscular system of the day and so on.

Means to develop speed may vary - this athletics, boxing, fencing, martial arts, wrestling, all kinds of sports.

In speed qualities training process it is advisable to pay attention to the development of muscular strength and power-speed-related economy of movement. In the training process of speeds it is better to develop it in the first or second day after a rest [2].

Endurance -is the most important physical quality reflects the overall level of disability rights. Under the general endurance we mean a series of features of the organism that makes sustainability to exercise with high efficiency of moderate intensity. In terms of the general theory of sport the endurance - is the ability of an athlete for a long time performance of different exercises with relatively low intensity, bringing into action a lot of muscle groups.

The level of development and manifestation of general endurance is determined by:

- Aerobic abilities of organism (physiological basis of general endurance);
- Degree of economization techniques movement;
- Level of volitional qualities.

The level of endurance depends on the functional capacity of organs and body systems, especially the central nervous, cardiovascular, respiratory and endocrine systems, as well as the state of metabolism and neuromuscular system. One of the most effective and affordable means of general endurance training is running.

General endurance of primary school aged boys develops intensively. In school middle aged boys the slowing of endurance development is typical, and in the high grades – we observe new growth. Girls from 8 to 13-14 years endurance indexes is steadily increasing, and after 14 years is sharply reducing.

Active increasing of endurance to the dynamic muscular tension is observed in boys and girls of 8-11 years old. Endurance to static efforts of various groups of muscles is also undergoes to age-related changes. Most researchers observed the highest growth of time support static wrist flexor force in the early school years.

Thus, the static endurance of palm hand in boys 8-11 years is increasing by 75.5%, 11-14 years – by 11.4% and in 14-17 years - by 10.4%. Moreover, at a young age there are significant differences within age groups. In another age the significant differences in the majority of cases occur in 2-3 years [1].

The marked increase in static muscular endurance palm hand in girls 8-15 years also takes place only from 8 to 10 years. Then, till 15 years the endurance is reducing to the level of girls 8 years.

The smallest increase endurance falls on the middle school age: from 8 to 11 years the endurance is increasing by 76.5% from 11 to 14 years - by 32.9%, from 14 to 17 years - by 63.1%.

Endurance is most advisable to train at the ages of 12-13 to 14-15 years. The girls are inferior to boys in developing endurance, and, the older the age, the differences are greater.

By affecting in the process of education one of the physical qualities we influence others. The nature and magnitude of this effect depends on two factors: features of physical stress and the level of physical fitness. People with low levels of physical fitness at a primary manifestation of one of physical quality the definite requirements are significant to others. For example, for beginners running at 100 metres is not only the test of their speed, but also is the test of strength, endurance, and agility.

Conclusion. Development of one of the physical skills at primary stages of training leads to improvements of others. However, further development of quality stops. In this exercise, which previously did impact on the development of physical qualities, will now provide training effect only on some of them. In the future, the negative relationship between definite characteristics may be evident. So, there are incompatible tasks to achieve maximum power indices (weight lifting large) and to get maximum indicators endurance (running, marathon) at the same time. However, please note that the highest degree of manifestation of one of the physical qualities can be achieved only with a certain degree of others [7].

With the development of physical qualities, you can use various techniques which take into account individual structure of the motor, and complex influence on motor abilities of an individual. When using a methodology that takes into account the individual structure of motor skills, development of leading motor characteristics, it is proposed to pay 65 to 80% of the total exercise for a single lessons. At the age of 12-13 years the power-speed qualities (if they are not basic) is given from 5 to 10% of the exercise stress, endurance (if it is not basic) - 15 to 20% of power quality (if it is not basic) - from 5 to 10% . At the age of 13-14 years of power-speed and endurance (if it is not basic) - 5-10% strength abilities (if it is not basic) - 15 to 20%....

When uniformly proportional (integrated) development of motor skills volume ratio recommended is the following: 35% - for power-speed and endurance, 30% - for strength.

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Tsaytler E.A., Filatova E.A., Arefyeva A.Y., Arefyeva D.Y.
THE HEALTHY LIFESTYLES OF YOUNG PEOPLE MEANS
«AUTOMATED FITNESS INSTRUCTOR»

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Abstract. The article considers the notion of mobile games in sports acrobatics, discussed, in details the examples of classification, as well as the degree of loading in mobile games in sports acrobatics.

Key words: outdoor games, acrobatics, subject games, plotless games, games with a subject.

One of the brightest and most urgent problems for modern society of today is a healthy lifestyle of students. Any country are important to the future of the new generation, because it depends on the further development of the state. For example: protecting the homeland; life, conforming to the norms of society and the individual needs of man; the ability to work and improve. [1]. It is the youth – the future of the country, therefore, close attention should be directed at children and adolescents, who are going to make a lot of discoveries and to overcome countless obstacles that await them in life. As no physical culture and sports develop strength, coordination, endurance, reaction, strengthen the spirit, builds character. This means that the physical culture and sport should be of interest to everyone and should be available for everyone. The essence of the problem lies in the fact that young people today are not showing proper interest in sports and healthy lifestyle.

Lack of interest in physical culture and sport derives from another, no less important problem of the modern society, the problem of computer addiction among children and adolescents. Computer addiction is a pathological addiction to work, playing on the computer, communication in social networks. The time spent at the computer, flies, people eat and drink near the monitor, or completely forgets about their physiological needs.

There are five main causes of computer addiction in children and adolescents: 1) lack of communication with important for a child people, rejection by peers; 2) insufficient attention parents; 3) shyness, inferiority complex, the difficulty of communication, lack of self-reliance; 4) the desire of youth to be "like everyone else", not to lag behind peers in anything; 5) lack of child serious Hobbies, interests, Hobbies, not computer related.

Computer addiction can affect the psyche of every child. The child's mind is still unstable at this stage of its development, the inner core is not fully formed, so it is hard to resist and not give in to the temptations arising from the passion for computer games. But that is no reason to give up, parents need to do to reduce the chances of the occurrence of this unfortunate dependencies:

- to support the family atmosphere of friendliness, peace, comfort and confidence;
- to develop the child the diverse interests and Hobbies;
- to develop the child's ability to establish positive relationships with others;

– to instill in the child such as purposefulness, ability to set goals even if very small targets [2].

But we can safely say that today computer technology succeed in its development and occupy an integral place in the modern world. If computers have become so important in our days, then in addition to the disadvantages they have, undoubtedly, should be even and dignity. Continuous improvement of computer technologies in various spheres of human activity opens for people new possibilities for its implementation, so the problem of lack of interest in physical culture and sport can be solved with their help.

One of the ways of solving the problem is to create a functional automated system, consisting in the process of developing a program of individual training based automation to enhance sports training today's youth by achieving her goals during exercise.

Modern teenagers are keen on computers, tablets, androids, always follow the novelties of developers of various programs and applications that aim to become one of the first owners of this new product and show it off to their peers. The proposed automated system will not leave indifferent any of the lovers of novelty.

"Automated fitness instructor" is a multifunctional web application that will allow users to get the training program, based on individual indicators of health, such as: blood pressure, hemoglobin, heart rate, presence of diseases, body mass index.

In our days, not every properly monitor their health, and this means that by completing the application the values of individual indicators can be difficult. Therefore, before you can use the app with the aim of drawing up an individual training program, you need to consult a physician.

Classes in physical culture and sports are available not only for healthy people, but those who suffer from various diseases. In a web application is considered the main groups of diseases, such as diseases of the joints (osteoarthritis, osteoporosis and so on), diseases of the nervous system diseases of the respiratory system, cardiovascular diseases, diabetes mellitus.

Any type of illness accompanied by a doctor's recommendations, including those relating to physical training and sports. People with health problems should clearly know that it is useful and it is strictly prohibited. Following these recommendations will help a person not only to aggravate their health, but to improve it.

Joint disease. Depending on the cause of joint disease, and disease distinguish between infectious and non-infectious (degenerative and traumatic lesions of joints. Joint diseases of infectious origin are called infectious arthritis, non-infectious origin – arthritis, traumatic origin – traumatic arthritis.

All these joint diseases have different symptoms, but they also have common features – mainly joint pain and limitation of movements. All diseases are caused by muscle atrophy and reduce the density of the bones forming the joint.

Therapeutic physical culture increase lymph and blood circulation. Improve the trophic joint is carried out on the background of improvement of the basic functions of the body: circulatory, respiratory, metabolism. Tonic effect of exercise is especially important in cases of prolonged bed rest. Therapeutic physical training

prevents muscle atrophy and joint stiffness.

In acute diseases of the joints in the first days you should perform a tonic exercises for healthy limbs and torso low intensity, breathing exercises. The affected joints several times a day to give the most advantageous position (treatment position). After a few sessions, you can enable active exercises and exercises for the affected joints performed on incomplete amplitude and without axial load on the joint. Passive exercises are used sparingly and carefully (should not cause pain).

In the future, the intensity is enhanced by a tonic exercises. The amplitude of movements and axial load for the affected joints gradually increase shall be applied stretching exercises.

Therapeutic physical culture in the long forced immobility of the joint is aimed at the prevention of contractures. Contracture – limitation of motion in the joint due to illness. This is achieved by exercises that improve trophism of the joint and its surrounding muscles: exercises in sending pulses, static muscle tension, ideomotor exercises. Where possible, apply the treatment [3].

Disease of the nervous system. The nervous system controls the activity of various organs and systems that make up the whole organism, carries out its relationship with the external environment, and coordinates the processes occurring in the body depending on the state of the external and internal environment. She manages blood circulation, lymph flow, metabolic processes, which, in turn, affect the status and activity of the nervous system.

With injuries and diseases of the nervous system disorders arise, which drastically reduce the performance of patients and have a negative impact on musculoskeletal function. Total for all injuries and diseases of the nervous system are the limiting range of motion, reduced muscle tone, vegetologicheskie disorders and so on.

Deep understanding of the mechanisms of the pathology of the nervous system is the key to the success of rehabilitation measures. One of the systems rehabilitation is a therapeutic physical culture. Exercise therapy in neurology has a number of rules, compliance with which makes this method the most effective. For example: early application of physical therapy; the use of its tools and techniques for restoration of impaired functions or for the maximum of compensation; selection of specific exercises coupled with obshherazvivajushhego exercise and massage; strict individuality LFC depending on diagnosis, age and sex of the patient, etc.

Special exercises can be divided into the following groups: exercises that increase range of motion in joints and muscles; exercises aimed at restoring and improving the coordination of movements; and antispastic protivoraketny exercises; ideomotor exercises (the promise of mental impulse in the trained muscle group); group exercises aimed at restoring or formation of motor skills; passive exercises and stretching exercises connective tissue formations, the treatment position.

All of these groups of exercises depend on the nature and extent of motor defect, stage of rehabilitation, age and sex of the patient. They can be combined in various combinations.

Rehabilitation of neurological patients require long training of compensatory mechanisms (walking on crutches, self-service, and so on) to provide adequate

compensation for lost or impaired functions [4].

Disease of the respiratory system. Pathological processes developing in the respiratory system can affect the individual parts of the breathing apparatus or cause combined damage to its various departments. The pathological process in any Department breathing apparatus disturbed function of the entire system, resulting in reduced ventilation, impaired gas exchange, pulmonary insufficiency. In this regard, the blood oxygenation in the lungs becomes lower than normal.

Physical exercises for their therapeutic application help to improve ventilation and gas exchange in the lungs. Normalization of gas exchange occurs not only by the influence of external breathing, but also on the tissue (improvement of oxidative processes and the utilization of oxygen).

The muscle contraction is one of the irritants of the respiratory centre. When performing physical exercise activates the metabolism in the muscle, therefore, the blood receives a large amount of CO₂ and lactic acid, providing irritant effect on the respiratory center. In the process dosed exercise special exercises that coincide with the phases of the breathing movements of the arms, legs, torso) are conditional irritant of the respiratory center and reflex cause increasing and deepening breathing. Plays a big role here nosology reflex that occurs when breathing through the nose. Stimulation of receptors in the upper airway reflex leads to expansion of bronchial tubes and deepening breathing.

When the lung disease observed changes in the activity of the cardiovascular system. Physical exercise has a beneficial effect on the neuro-regulatory mechanisms of the circulatory system and contribute to the strengthening of the heart muscle [3].

Diseases of the cardiovascular system are among the most common and most often lead to disability and death. One of the reasons for the increasing number of diseases of the cardiovascular system is the reduction of motor activity of modern man (physical inactivity). Therefore, to prevent these diseases must be regularly engaged in physical culture, to include in the daily routine of various muscle activity.

Therapeutic effects of physical exercises based on the positive influence of muscular activity on the function of heart and blood vessels. When the muscles of the cardiovascular system increases their blood supply and therefore provides an opportunity to continue the work.

Exercise improves trophic processes and the overall metabolism in the body, reduce cholesterol in the blood, delaying the development of atherosclerosis. Systematic exercise affect blood pressure through the many links of the regulatory systems of prolonged exposure. You should perform exercises that, in giving effect mainly through neuro-reflex mechanisms that reduce blood pressure. Breathing exercises with extended exhalation and ischemia respiratory reduce heart rate. Exercises in relaxation of muscles and exercises for small muscle groups lower the tone of the arterioles and reduces peripheral resistance to blood flow.

In severe condition of the patient uses the physical exercise, rendering the action through extracardiac (non cardiac) factors circulation. For example: exercises for small muscle groups promote blood in his veins, acting as a muscle pump; breathing exercises promote venous flow to the heart.

Therapeutic physical training is recommended for all diseases of the

cardiovascular system. Contraindications are of a temporary nature. Exercise therapy is contraindicated in the acute stage of the disease (myocarditis, endocarditis, angina and myocardial infarction, severe cardiac arrhythmias), increasing heart failure, severe complications of other organs [3].

Diabetes mellitus is a violation of carbohydrate metabolism caused by inadequate production by the pancreas of insulin. The causes of this disease are: a disorder of the Central nervous regulation, diabetes heredity, infectious diseases, excessive consumption of carbohydrates. With the help of physical exercises are such special tasks as a stimulating effect on the utilization of sugar in the body, the compensation of insulin deficiency, increase the body's resistance to carbohydrates.

In doing therapeutic exercises, you need to use exercises for all muscle groups. For large muscles to perform movements with large amplitude at a slow pace and average, and small – at a fast pace. In addition, you can use the exercises with the weights and gym apparatus (gymnastic wall, the bench, the bar). Course duration 30–45 minutes.

Patients with a mild form of diabetes must be addressed dosed walking (from 2 to 10 km), sports and exercise, skiing, skating, swimming, tennis and other games. Patients with diabetes moderate exercise is recommended for moderate and low intensity with the participation of all groups of muscles, breathing exercises and relaxation exercises muscles. The duration of 25-30 minutes In addition to therapeutic exercises used dosed walking.

At the dosage of loads must be considered that intense muscular work increases the sugar content in the blood, and long-running at a slow pace exercise reduces. Therefore, patients with diabetes contraindicated exercises with a strong General power voltage and exercises on speed, because when muscles are dominated by anaerobic processes, and increases the content of acidic products in the blood [3].

Along with the indicators of the health of the teenager, of course, you should take into account age, height, weight of the child, because experts say that when planning physical activity must proceed from the age and physiological characteristics of a person, take into account the health condition, consult with your doctor about probable contraindications [5]. In the absence or the lack of information about their condition and possible contraindications can exacerbate the situation, doing exercises that are not recommended or prohibited by the doctor, because they may affect health now or cause negative consequences in the future.

Another important component of a healthy lifestyle is eating right. In this regard, each set of training made a web application will be accompanied by recommendations for proper nutrition. Because, as you know, proper nutrition provides growth, normal development and human activity, promotes health and disease prevention. Compliance with the rules of healthy eating combined with regular exercise reduces the risk of chronic diseases and disorders such as obesity, cardiovascular disease, diabetes, high blood pressure and cancer [6].

In the period of development from 16 to 19 years old man is a qualitatively new social position, which really formed his conscious attitude as a member of society. Therefore, Automated fitness instructor" gives Teens the freedom of choice that is necessary for the formation and development of personality. The user chooses a goal

that motivates him or her to engage in physical culture and sport, from the options: lose weight, gain muscle mass, to keep fit, improve health. In addition, the user chooses one of the sports (powerlifting, bodybuilding, gymnastics, dance aerobics, fitball aerobics, cardio training, yoga, Nordic walking), to which he takes the greatest interest. The application then displays a detailed description of the chosen direction.

The final stage after filling in all fields of the application is to click on the "Make program". As a result, in the resulting window, the user will receive a training program tailored to its individual characteristics, and recommendations for food, which you must adhere in order to maintain health. The training program is a list of exercises with an explanation to follow them. If the description of the exercise the user is not enough, you have the opportunity to get his visual image, by clicking on the "Show activity".

The young generation is the future of the country, so it is very important to teach adolescents to properly monitor their health and to make decisions, relying on their own opinions and personal preferences.

Taking into account individual peculiarities of the organism will make the exercises, the most suitable particular person, and thus, performing these exercises will not bring any harm, but on the contrary, will strengthen it. Regular exercise will ensure a high level of immunity, improve metabolism and blood circulation, normalize blood pressure, increase strength and endurance.

If the current generation fascinated by computer technology, and to solve the problem of lack of interest of adolescents in physical culture and sports. The main thing is to find the right approach to adolescent, to achieve this goal.

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J11513-003**Arefyeva A.Y., Tsaytler E.A.****OUTDOOR GAMES ARE PREPARATORY ELEMENTS IN SPORTS
ACROBATICS***FSBEI HPE «Nosov Magnitogorsk State Technical University»,
Magnitogorsk, Lenin Street, 38, 455000*

Abstract. The article considers the notion of mobile games in sports acrobatics, discussed, in details the examples of classification, as well as the degree of loading in mobile games in sports acrobatics.

Key words: outdoor games, acrobatics, subject games, plotless games, games with a subject.

In sports acrobatics to achieve the goals and skills training are used outdoor games.

Outdoor games is a joint or single player, the purpose of which is the movement, the rhythm and the development of physical strength. They play a huge role in physical education in a variety of sports. Outdoor games are essential for any athlete to prepare his sport. In addition, mobile games often carry additional meaning, as learning specific skills, and the development of various physical properties. They allow you to relieve physical fatigue from the muscles, to achieve switching from one activity to another. Using mobile games, the coach will see what physical and spiritual qualities present in the athlete, and to foster their development.

Thanks to mobile games, the coach can see how ready the athlete to training, as developed its sporting qualities: agility, quickness, endurance, teamwork, leadership. For beginners, the mobile game is his conscious activity, characterizing the exact tasks. They are based on different kinds of movements and mandatory for all game rules. In addition, the mobile game for athletes is as warm-up and recovery event. These games develop and combine movement, warm up of large and small muscles, promote metabolism, blood circulation, breathing. For athletes involved in sports acrobatics, very important restorative part of the training process. The nervous system of the athlete is always in tension, and during the execution of complex coordination exercises (items) works at the limit. And in order to relieve the nervous system, the required outdoor games in its different varieties.

Outdoor games are diverse. Consider the classification of mobile games (Fig. 1).

Plot: have finished the story and already fixed rules, actions associated with the development of the plot and with the role of athlete.

Plotless games: contain interesting both for athletes and for children motor games (games with competitions, games, relay).

Games subject: interesting motor games, with different levels of strain, the actions associated with the transfer of the subject.

Another important factor is the degree of the load. The degree of difficulty in moving the games reflects the impact of physical exercise and the entire lesson in General on the human body, is determined by the amount of energy expended by the body.

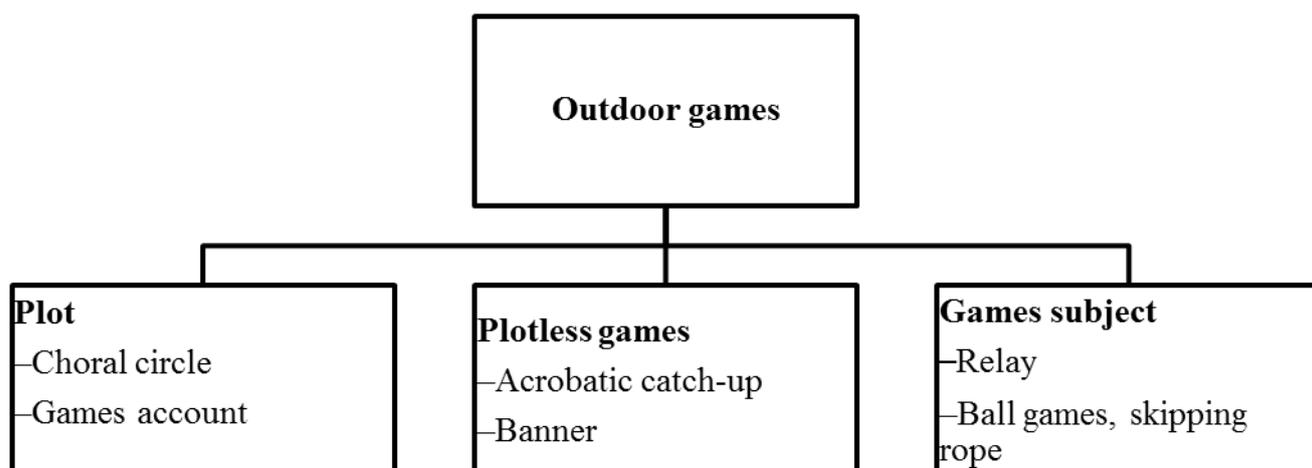


Fig. 1. The classification scheme for mobile games

According to the degree of load, outdoor games are divided into:

The game has a great mobility (complex mobile games) – involved the whole group of people. Leading the movement-running, jumping, some acrobatics (tumbling, wheel revolution). An example of such games is the game: "Acrobatic catch-up". The rules are very simple: is conductive (it catches up with other players), and one whom he has caught up (enough to touch the player), he becomes "it", but before you touch, conductive must repeat after the retreating player different acrobatic elements.

Games average mobility is actively involved the whole group, but the nature of playing a relatively quiet or movements performed by the subgroups. Leading motion-walking, light Jogging, transfer items. Here is an example of the game "Hot potato". The goal of this game is that players must walk or run (easy run) in a circle, quickly passing the ball behind the running, not dropping it.

Games low mobility-movement performed at a slow pace, the intensity of their significant small. Leading motion-walking, playing attention. An example of such games is to play "Charging". The aim of the game: the players, going slow step on the circle must repeat the movement for the guides, which goes ahead, not wrong.

Thus, games are an important element in sports. They help to develop different physical qualities. Help to achieve goals, to determine the readiness of the athlete's training.

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J11513-004**Karelina N. N.****DEVELOPMENT OF RESISTANCE AGAINST PROFESSIONALLY-RELATED DISEASES OF FUTURE VETERINARIANS ON THE LESSONS OF PHYSICAL CULTURE AT THE UNIVERSITY***Moscow State University of Food Production,
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Abstract. The approach for the optimal preparation of students for future career by means of physical culture is considered in this work. Special attention is paid to the study of the characteristics of the specialty "veterinary doctor" to optimize practice applied physical culture. Targeted health promotion of future specialists leads to increased efficiency and productivity.

Key words: physical culture, professional-applied physical training, occupational diseases, prevention, health, students, working ability.

A mandatory part of higher professional education is discipline "Physical education". Compliance of the preparation which is carried out on classes in physical culture and sport at university and requirements to physical fitness is necessary for work on the specialty chosen of the student. It should be noted the need for research and development in the field of higher professional education in many subjects, and, in particular, in the specialty "veterinary medicine", and need to pay due attention to the formation and development of physical qualities of future veterinarians.

Physical culture, taking into account the applied focus, lead to the development of working ability, and physical and mental preparedness to work to lower the incidence of worker, more productive work, creative longevity and lower costs in health care.

Solving problems professionally-applied physical training and classes on the subject "Physical culture" in the University should be held in such a way that would maximize the development of physical qualities of students who in the future will play a role in maintaining the health of future specialists in the field of veterinary medicine.

To identify the characteristics of a profession "veterinarian," detection of the complex is professionally significant physical qualities and requirements for physical training was conducted occupational research of experts in the field, which showed that the majority of their work time veterinarians performed standing, sitting or in a squat position ("squatting"), during all manipulations with animals the head is tilted forward, round-shouldered, the hands are in static tension. Despite the frequent change of positions during inspections and this position is static, giving the load on the legs, back, arms. Breaks employees take in a sitting position, round-shouldered, head bowed down or thrown back. Muscle fatigue occurs closer to 19.00 (during the work of clinics from 10.00 to 22.00) or 20.00 (with round-the-clock work clinics) and is manifested in fatigue of the legs and back and incoordination, for the profession of priority are endurance, strength and coordination quality. [6]

Special attention on the lessons for physical education in higher education requires prevention of occupational diseases. In surveys of doctors veterinary clinics

revealed that major medical contraindications to the profession are an allergic reaction to animals and drugs, various phobias related to animals and vegetative-vascular dystonia, the most common diseases of workers are: 1) allergic diseases; 2) respiratory diseases; 3) diseases of the musculoskeletal system. The impact of the work of the veterinary surgeon on the patient's pulmonary system is found in the work by Vasilyeva O. S., in which proved the role of working conditions and the impact production factors on the development of hyper responsiveness and bronchial hypersensitivity, latent respiratory dysfunction in healthy livestock. "High frequency of acute and chronic obstructive diseases of the respiratory system, causing allergic reactions in workers of livestock farms... due to the unfavorable impact of a mixed organic dust complex composition, with pronounced biological activity". [5]

Prevention of occupational diseases of the students enrolled in the specialty "veterinary doctor" in the process professionally applied physical training in the University shall primarily to increase the adaptive reliability. Also necessary individualization of each hazard working for optimum selection of prophylactic drugs physical education.

The basis of lessons aimed at prevention of allergic diseases and diseases of the bronchopulmonary system, consists of a variety of physical exercises on basic endurance running in aerobic and anaerobic mode: jumper running, fast running on medium and short distances, athletic exercises, brisk walking in the fresh air, long lasting sports games basketball and football, outdoor games and relay races, breathing exercises. It is desirable to conduct classes outside in different seasons. You should combine classes in physical education with additional hardening natural factors, dosed sun and air baths, brushing or pouring water, cold showers, going to the bath or sauna.

Diseases of the musculoskeletal system occur due to prolonged stay in the forced poses and static muscle tension in the process of holding animals. Under the influence of specific non-normalized loads can occur neuralgia, osteochondrosis, radiculitis, bursitis, arthritis and other diseases associated with stress. For prevention of such diseases it is necessary to develop students' ability to dose of physical activity and to develop static endurance.

For development of ability to dose various power tensions are used physical exercises with the differentiated emergence of muscular efforts. According to R. T. Rajewski most effective for this are basic and special physical exercises from playing sports with a ball. [4] In an example, the following exercises dosing efforts: pushing and throws cores goals and printed by a predetermined distance, jumping up and long by a predetermined distance, jumping through several barriers of different heights, different throws balls (basketball, volleyball, tennis and handball) in the ring, the upper transfer volleyball, badminton, table tennis. For the formation of static endurance are applied exercises aimed at the development of muscles, experiencing the most stress. When working veterinarian the greatest load have the muscles of the arms and back. [6]

For strengthen and develop the muscles of the arms and back, and for the formation of their static endurance you need to use extended dynamic and static

exercises such as: retention provisions “plank” (push up), flexion and extension of the arms in push-up position, hanging on the bar, pull on the bar, the bridges, racks (arms, shoulders, shoulder blades), exercise with weights.

For use in the future during leisure time and at work students should be trained in the techniques of therapeutic physical culture (physical therapy) when specific to their profession diseases, recommend materials and teaching methods perform the necessary exercises. Young professional should know the tasks, contraindications to practice, forms, means and methods of conducting independent classes on medical physical culture.

The optimal use of means and methods of exercise therapy for acute and chronic diseases eliminates residual clinical manifestations, contributes to increase the reserve capacity and optimize the activities of the main functional systems of the body. [1]

The main task of the entire system of physical education is to promote the health of people that will increase their performance and productivity. Special attention in the modern lifestyle (stress, physical inactivity) should be given to the development of applied functions of physical education.

Graduates who completed the course “Physical culture” must possess the motor skills necessary in the production activity, high efficiency and have a sufficient level of development of professionally important qualities.

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Alontsev V.V., Tsaytler E.A., Arefyeva A.Y.
DEVELOPMENT OF COORDINATION ABILITIES IN SPORTS
ACROBATICS

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Abstract. In article such concepts as coordination abilities in sports acrobatics are considered. The concepts "dexterity" and interrelation of this concept with coordination abilities are given. Groups and types of coordination abilities are in detail described, the result of their development in sports acrobatics is presented. Development tools of various coordination abilities are described.

Keywords: coordination abilities, dexterity, types of coordination abilities, acrobatic exercises.

For transition to the highest sports category in acrobatics it is necessary to study and carry out more difficult acrobatic exercises and acrobatic series. They can be developed by means of coordination abilities [1].

The leading role in training of difficult acrobatic exercises, coordination abilities are. The concept coordination abilities differs from the general and is defined, how dexterity. Dexterity – ability dvigatelno to find any way out, i.e. ability to cope with any arisen motive task. Coordination abilities, represent:

- ability to build uniform motive acts, sheaves, the movements;
- ability to switch from one forms of action, to another;
- ability to transform the new, complicating movement forms.

Progress in learning of difficult acrobatic exercises and the complicated motive sheaves in sports acrobatics significantly depends on all these abilities. There are three groups of coordination abilities (tab. 1).

Well developed coordination abilities, help successful training and performance of difficult acrobatic exercises. They depend on courage and determination; abilities of the person to the general analysis of the movement; level of development of various physical abilities (flexibility, speed, dynamic force, speed etc.).

Table 1

Classification of coordination abilities

<i>First group</i>	<i>Second group</i>	<i>Third group</i>
Ability to commensurate and regulate, temporary parameters of the movement. Depends on the full tension of muscles	Ability to maintain static and dynamic balance. Balance of various static provisions depends on steady position of a body, i.e. It is expressed in balancing	Ability to carry out physical actions without excessive muscular intensity (constraint). Depends on performance of exercise without any effort

Also development of coordination abilities leads to that athletes:

- much quicker, and at higher level seize physical actions;
- with ease study various acrobatic exercises and the movements;

- successfully cope with physical and moral activity;
- are psychologically satisfied from development and performance of new forms of various movements.

There are five types of coordination abilities (fig. 1).

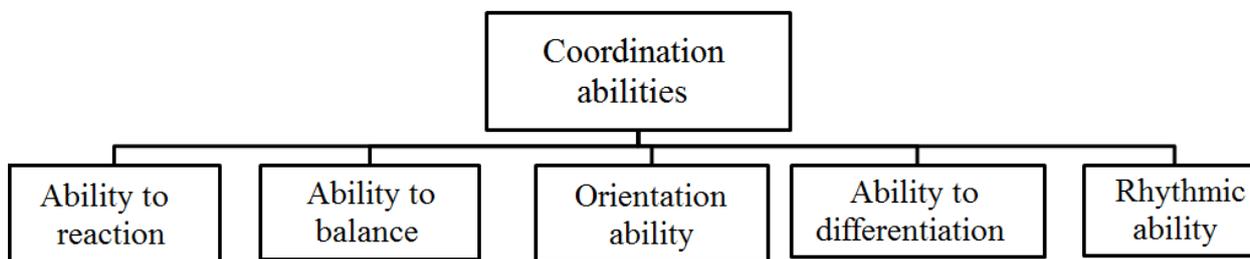


Fig. 1. The scheme displaying types of coordination abilities

1. Ability to reaction is an ability quickly and precisely to begin the movements according to a certain signal. Criterion of this ability is time of reaction to various signals. For example, when carrying out outdoor games – a start signal. Or when performing separate acrobatic exercises, the athlete has to react to the trainer quickly. Ability to reaction improves by method of exercises in the most various movements. It is necessary to apply to formation of ability to reaction: free run with additional tasks for sudden stops.

2. Ability to balance is a saving of the steady provision of a body in the conditions of various movements and poses. This ability can be static and dynamic. In this relationship the exercises connected with rotation in various provisions of the head, extremities, trunks are useful. Turns, somersaults, revolutions, turns or combinations of exercises, turns in air, saltovy elements concern to them.

For improvement of ability to static balance it is necessary to use the following receptions: lengthening of time of preservation of a pose, performance of exercises (ravnovesiya) blindly, gradual decrease in the area of a support (performance of exercise by means of a support and without it).

Improvement of ability to dynamic balance requires accustoming to various external conditions. Treats important educational tools of dynamic balance mobile and sports in which the rhythm and the direction of the movement sharply changes. Development of a vestibular mechanism considerably improves this ability. It is necessary to apply exercises with rectilinear and angular accelerations to improvement of vestibular function in sports acrobatics. For example, somersaults forward and back, revolution forward, back and aside (wheel), saltovy exercises on a trampoline.

3. Orientation ability is an ability to stay and change of position of a body in space and in time, especially taking into account the changing situation or moving object. For example, an exit after a jump in three turns round itself, tumbling stunts from the partner and on a path, floor exercises in sports acrobatics so further.

4. Ability to differentiation is an ability to achievement of high precision of separate parts and stages of the movement, and also movement in general. For example, jumps from an emphasis having sat down with catching of a ball in air – the athlete jumps out up thus throws a ball in air, it catches a ball in air and comes back to a starting position.

5. Rhythmic ability is an ability to define and carry out characteristic dynamic changes in process of physical action. Rhythmic kind of work of an organism allows to carry out most effectively each physical action with rather small fillings. For example, performance of floor exercises to the sound of music. Development tools of rhythmic ability are the physical exercises which are carried out in various temporary and spatial ratios: dances, dancing steps, choreography at the machine, rhythmic dancing jumps. It is necessary to include walking under the account with performance of various movements in the content of occupations.

Thus, development of all coordination abilities is one of important means of training of acrobats. When training in the new various movements in sports acrobatics with gradual increase in coordination abilities, engaged not only fill up the motive experience, but also develop ability to form new forms of coordination of movements. Possessing a large supply of movement skills, it is easier for athlete to cope with unexpectedly arisen motive task.

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