

## SUMMARY

**Babushkina O. Ph. Changing of functional condition of autonomus nervous system of children being in the state of neurosis with the residual-organic background // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 3-7.**

This work deals with the results of the influence of the courses of physician (swedish) massage onto autonomous nervous system of children aged 8-10 years being in the state of neurosis with the residual – organic background. The said rehabilitation was carried out at the children department of the psychiatric hospital № 1, the city of Simferopol.

**Key words:** physical rehabilitation, autonomus nervous system, the state of neurosis with the residual – organic background, children.

**Babushkina O. Ph. The influence of the courses of physical rehabilitation onto cardio-vascular system of children being in the state of neurosis with the residual-organic background // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 8-10.**

This work deals with the results of the influence of the courses of physical rehabilitation onto cardio-vascular system of children aged 8-10 years being in the state of neurosis with the residual-organic background. The said rehabilitation was carried out at the children department of the psychiatric hospital №1, the city of Simferopol.

**Key words:** physical rehabilitation, cardio-vascular system, the state of neurosis with the residual – organic background, children.

**Belikov V. I., Berezansky S. V. The factorical structure of motive skills and morphofunctional indicators in the pupil's running // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 11-14.**

In the paper, as a result of research were got facts about interrelationship between the level of physical preparedness, facts about morphofunctional indicators and pupil's techniques of both sexes. Registration of regularity of aforementioned components permits to accomplish differential method to the choice of means of training within the framework of the school's curriculum and extra-curricular functioning.

**Key words:** the factorical structure, motive skills, morphofunctional indicators.

**Beketov V. A., Shyokin D. V. The perfection of sport technique on the different stages of lasting many years training for wrestlers // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 15-18.**

One of the methods to the perfection of sport technique on the different stages of lasting many years training for wrestlers is presented in the paper. It is based on conception of three-dimensional system of training.

**Key words:** three-dimensional system of training, technique perfection, stages of training, tasks for a specified purpose.

*Bukov U. A., Pogodina S. V. Change of pulmonary ventilation function in sportsmen (aged 12 to 13 years) during adaptation to cyclic physical loadings // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 19-22.*

The ventilation reaction result analysis of young swimmers (aged 12 to 13 years) on carrying out of physical load showed that the aerobic power limiting factor of teenagers was redistribution vital capacity of the lungs components to significant decrease reserve volume of the exhalation. The results also showed disparity between increased volume of pulmonary ventilation and bronchial permeability. Therefore it is essential to take into consideration age peculiarities of the function pulmonary ventilation forming in developing of training program of long standing.

**Key words:** age peculiarities, pulmonary ventilation, adaptation, cyclic physical loadings.

*Bukov Y. A., Safronova N. S. Usage of mildronat combined with aerobic physical exercions in the functional condition correction of cardiorespiratory system and physical working capacity of weekend health persons // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 23-27.*

The research results of influence of aerobic exercions with mildronat usage on several parametas of cardiorespiratory systems in 18-20 years old persons with low level of somatic health have been discussing in this paper. Combination ergotropic activity of moderate physical exercions and cardioprotection efficacy of mildronat promoted to improving of functional possibilities of cardiorespiratory system of organism. This is the main factor of aerobic capacities intensification of examined students. Getting results permit to recommend proposal complex influence as possibility variant of increase of physical working capacity of feeble health persons.

**Key words:** mildronat, aerobic physical exercions, cardiorespiratory system, physical working capacity.

*Bukova L. M., Krovyakov V. F. The Study of the influence parameter functional condition of the organism on efficiency of the playing interaction of the young basketball players // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 28-31.*

Intercoupling of the factors of the functional condition of the organism of the young basketball players with factor of the playing interaction has been exploring. Will Revealed high degree to validity of the factors of the energy potential and acid-main condition, promoting success to playing activity.

**Key words:** basketball, efficiency of the interaction, capacity to work, acid-main condition.

*Bulich E. G., Rezner V. A. Influence system physical exercise on operational memory of elderly people // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 32-35.*

The sequential increase of physical functionability before the not trained elderly people under effect of systematic occupations by physical exercises is accompanied in the beginning (3-6 months of occupations) some lowering of the RAM and selectivity of notice. Hereinafter (2-3 years) develop opposite increasing changes accompanying with increase of a level of correlation correlations between parameters of physical and mental functionability. The challenging effect of occupations on the RAM is more expressed for the women, and on a selectivity of notice - for the men.

**Key words:** operational memory, physical exercises.

*Verko N. P.* **Functional activity of rat blood neutrophils during developing the adaptive reactions of different types** // *Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo*. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 36-42.

The work was devoted to studying the functional activity of rat blood neutrophils in adaptation to long lasting action of hypokinesia, electromagnetic field of extremely high frequency (EMF EHF) and their combination. 43-day hypokinesia causes the stress reaction, characterised by different intra- and between - systemic changes of bactericidal and hydrolytic systems on the background of energetic metabolic dysfunctions. The action of EMF EHF increased the bactericidal, hydrolytic and energetic potential of neutrophil leucocytes in intact animals. Combined action of hypokinesia and EMF EHF lead to simultaneous activation of bactericidal systems, normalization of hydrolytic enzymes content, stimulation of aerobic and anaerobic glucose oxidation. Since 13th to 31st days of study the ability of hypokinesia to modify the adaptive reactions developing as a result of EMF EHF action was discovered.

**Key words:** EMF EHF, neutrophils, hypokinesia, adaptive reactions.

*Grigoriev P. E., Martynyuk V. S.* **Variations of space weather indices and infradian rhythms of physiological processes in animals** // *Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo*. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 43-49.

The analysis of periodic variations of indices of space weather and integral rhythms of physiological parameters of animals is carried out. It was established that in researched spectra of indices of space weather and physiological processes most often there are variations about 6,8-7,2d; 8,4-10,0d; 13-16d; 24,4-28,2d. It is shown that value of the basic periods of cosmophysical indices varies in time a little, however thus synchronization of physiological parameters with them is kept.

**Key words:** cosmophysical indexes, natural electromagnetic fields, periodic variations, biorhythms.

*Gamma T. V., Korenyuk I. I., Baevsky M. Yu.* **Functional condition neurons RPa1 under influence of dibazole and bemitile** // *Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo*. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 50-54.

With the help of a technique intracellular of assignment of potentials, analysis of the first derivative of potential of action both applications medical product is dibazole and bemitile on neurons of mollusks the features of influence of these connections in various concentration on a functional condition neurons RPa1 is shown. On the basis of the received results the conclusion is made that dibazole and bemitile render depended of dose oppressing neurotropic effect shown in partial, in case dibazole and full, in case dibazole, suppression as entering sodium and calcium ionic currents, and leaving potassium of a current.

**Key words:** potential of action, first derivative, ionic currents, neuron, mollusk, dibazole, bemitile.

*Grugevskaja V. F., Syshko D. V., Grugevski V. A., Minin V. V.* **Influence dosing of physical loading on display of vestibule, autonomic and somatic reactions in children of younger school age** // *Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo*. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 55-59.

Is revealed, that vestibule of an irritation influence display vegetative and somatic of reactions at children of younger school age. Dosing physical loading raises a functional condition of the impellent analyzer, and it promotes increase vestibule of stability at children.

**Key words:** vestibules of reaction, doses loading, children, younger school age, vestibules stability.

*Snopkov P. V., Grabovskaya E. Y., Melnichenko E. V. Investigation of effectiveness of the rehabilitation complex in structural idiopathic scoliosis treatment // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 60-63.*

The abstract considers the rehabilitation complex and methodology of its realization in the case of idiopathic scoliosis of the I-II degree and the indices of effectiveness according to the diagnostic criteria of the estimation.

**Key words:** rehabilitation complex, scoliosis, manual therapy, massage, therapeutic physical training, deformation correction, pain syndrome, perceptibility, muscular tension, muscular strength, movement volume, spondylorgaphy, static-dynamic stereotype.

*Malygina V. I. Grabovskaja E. Yu. Influence of variable magnetic fields on nonspecific resistance in rats // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 64-66.*

By influence of changing magnetic fields in rats with middle level of mobility develops adaptational reaction, which characterised by intensification of functional activity blood neutrophiles, changing of brain integrative activity and state of sympathoadrenal system. Obtained data permit us to recommend 7-9 divisible adaptation of changing magnetic fields with frequency 8Hz and induction 5 mTl for purposeful increase of reserved organism ability.

**Key words:** adaptational reaction, nonspecific organism resistance, changing magnetic fields, neutrophiles, sympathoadrenal system.

*Melnichenko E. V., Ozerova L. A., Efimenko A. M., Parhomenko A. I. Rehabilitation of osteochondrosis spine and idiopathic scoliosis I-III degree by method autotraktion // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 67-71.*

Physiological analysis of author method «autotraktion» (L.A. Ozerova's and Melnichenko method) represented in the article. The effect of autotraktion was proved by antropometric methods stabilographic and rentgenographic. Autotraktion was used for correction of idiopathic scoliosis of I-III degree and osteochondrosis of spine. The efficiency of it was high: prolonged spine was 2,5-5,0 sm and correction spinal deformation was 5°-12°.

**Key words:** author method autotraktion, osteochondrosis spine, scoliosis, prolonged spine, correction.

*Minin V. V. Parameters of variation pulsemetry in the boxers of different qualification in rest // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 72-75.*

It is revealed that at the boxers of low qualification on work of heart in rest influences sympathetic department of autonomous nervous system more. And work of heart in rest at the boxers of high qualification influences parasympathetic department more. Also is revealed, that heart works for the boxers of high qualification in rest more independently, than at the boxers of low qualification.

**Key words:** autonomous nervous system, variation pulsemeter, boxers, autonomous balance.

*Novak S. B. Peculiaris of regulation station pose to old people // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 76-79.*

The method computer posturography investigates motions of center of mass of a body (CMB) for the people 19-24 and 70-79 years. Is clarified significant (at a level  $t=3,9-6,37$ ;  $p<0,001$ ) increase of all parameters describing motion CMB of the person at stand, for the people 70-79 years as contrasted to by young people. Almost all parameters of motions CMB for the women are much less, than for the men. The obtained data indicate attenuation of activity of the physiological gear of stabilization of a vertical pose with age.

**Key words:** station pose, posturography.

*Pavlenko V. B., Kulichenko A. M., Velikanova D. N., Drujinski C. V., Kalin A. U. Correlation of activity of aminergic brain systems and timing of movements // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 80-86.*

The article describes a correlation between background impulse activity, power of reactions aminergic neurons of cat's brain stem and parameters of movements during the implementation of conditioned task.

**Key words:** time perception, dopaminergic, noradrenergic, serotonergic neurons.

*Ponomareva V. P. Changing of psycho-physiological status of tested with the different types of functional sensory asymmetry by the influence of electromagnetic irradiation of extremely high-frequency of different localization // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 87-95.*

The dynamics of psycho-physiological indices of tested with different sensor phenotypes under the influence of electromagnetic emanation of extremely high-frequency of different localization has been studied. It is stated that while using different zones of irradiation the increase of mechanical, aural, affect, eye memory and visual information volume, of speed of visual information processing and coefficient of mental productivity of tested phenotype groups occur. The explicit dependence between the level of changes and rank of effect expressiveness after the influence of irradiation localization, sensor phenotype and initial state of tested people was discovered.

**Key words:** EMF EHF, psycho-physiological indices, sensory asymmetry, influence localization.

*Syshko D. V. Parameters of variation pulsometry in the sportsmen with different vestibule-autonomous reaction type // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 96-99.*

It is revealed, that the parameters variation pulsometer at the sportsmen change on any other business after vestibular irritations. These changes depend from vestibule-autonomous such as the sportsman. The parameters variation pulsometer can be applied in functional diagnostics of the sportsmen.

**Key words:** vestibule-autonomous reaction type, variation pulsometer, heart regulation.

*Uryupin E. E., Osadchaya E. V., Kovaliskaya I. A. The study parameter flow-volume of the maximum exhalation in system reserve estimation of the external breathing // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 100-103.*

In article are presented results of the study, allowed to define the functional reserves of the system of the external breathing with the help of physical load and mark the approaches to preventive maintenance of respiratory insufficiency.

**Key words:** forced exhalation, bronchial possibility, physical load.

*Chornaya V. N. Influence of the food compliments with mixed of marina algae and mikroalgae on the animal metabolism // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 104-108.*

The influence of the compounds food compliments with mixed of marina algae and microalgae on some parameters of animals metabolism and quality of posterity is described in this article.

**Key words:** marina algae, microalgae, biological activiti of extracts, sintesis of proteins, lever of gemoglobins.

*Chuyan E. N. The phosphatase activity of alveolar macrophage changes under influence of low intensity electromagnetic radiation of extremely high frequency // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 109-113.*

The influence of low intensity EMR EHF on changes of alveolar macrophage functional activity in phosphatase activity parameter in intact animals and in animals that located in experimental stress-reaction condition was studied. EMR EHF of low intensity caused to expressed increasing of alveolar macrophage phosphatase activity as in intact animals so in animals with experimental stress-reaction condition was data. This factor significant increase functional capability of this cells that promote to increasing of physiological protection and resistance level of organisms.

**Key words:** EMF of EHF, nonspecific resistance, alveolar macrophage, phosphatase activity.

*Shiryayev N. V., Shiryayev V. V., Efimenko A. M., Luzin A. V., Azhytsky G. Yu. The influence of blood serum proteins on the melittin-induced lysis of erythrocytes // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 114-122.*

With the help of experiments in veronal–NaOH buffered solution with  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$ ,  $\text{pH}=7,4$ , it was shown that preincubation of melittin with the human blood serum or bovine serum albumin inhibited melittin-induced lysis of erythrocytes, when the human polyclonal IgG or the human C1q demonstrated no any visible inhibition. Some inhibition by blood serum or serum albumin took place even in the case of their addition 15 minutes after the mixing of erythrocytes with the least lytic doses of melittin. In the experiments on the “incubated” erythrocytes serum albumin demonstrated not only the inhibition of melittin-induced lysis, but also the activation of the leakage of hemoglobin from erythrocytes in the presence of sublytic doses of melittin. The last fact demonstrated the presence of no less than two quite different mechanisms of the damaging of cell membrane by melittin.

**Key words:** bee venom, melittin, erythrocytes, blood serum, bovine serum albumin, immunoglobulin G, C1q, hemolysis, inhibition.

**Shishko E. Y. The influence of hypokinesia on infradian rhythmicity of bactericidal and hydrolytic system of neutrophils blood of rats // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 123-129.**

In the given work influence of hypokinesia on infradian rhythmic bactericidal and hydrolytic systems neutrophils rats' blood is investigated. Hypokinesia change the time organization of physiological processes at rats to what easing coordination in operation enzymes and development desynchronizes testifies.

**Key words:** hypokinesia, infradian rhythmic, bactericidal and hydrolytic system, neutrophils, desynchronosis.

**Shramko J. I. System of mononuclear phagocytes as an adaptive marker // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 130-138.**

The results of investigation prove that byhexachloran /BHC/ in concentration not exceeding the pesticides residues in food stuffs stimulate the lung defesive mechanisms at initial period of their action. 3 months later after the begining of the experiment the supression of functional state of mononuclear phagocyte system was observed. BHC in toxic dose supresses the lung defensive mechanisms. So, mononuclears are the markers of adaptation.

**Key words:** mononuclear phagocytes system, lungs, alveolar macrophages, xenobiotics, byhexachloran, adaptation.

**Gurkovich E. I., Pohmurko O. S. Horse riding as meam of physical rehabilitation for patients with scoliosis // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – №4. – P. 139-141.**

The using of the horse riding therapy at the heals resort stage of the rehabilitation of patients with scoliosis of the 1-2nd stage improves the musculoskeletal systems function. The horse riding therapy supplements the traditional forms of kinesotherapy that is used for patients with scoliosis.

**Key words:** rehabilitation, children, horse riding, scolios.

**Archangelskaja H. V., Kirillova A. V., Sidjakin V. G., Konovaltchuc V. N. The bioelectric activity of brain in phsyho-physiological reseach // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V. I. Vernadskogo. – 2003. – Series «Biology». – V.16 (55). – № 4. – P. 142-145.**

The bioelectric activity of brain when perceiving positive vebal information was studied. Real chenges in correlational conditions between the rythmosof EEG and psycyjphysiological cyaracteristics were pointed out.

**Key words:** psyhyofisiologya, rhythms EEG, test psyhyologya, call potential.