

## HUMAN HEALTH AND FACTORS THAT AFFECT THE BODY AS A WHOLE

## ЗДОРОВ'Я ЛЮДИНИ ТА ЧИННИКИ, ЯКІ ВПЛИВАЮТЬ НА СТАН ОРГАНІЗМУ В ЦІЛОМУ

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**Summary**

The paper contains theoretical analysis and scientific justification of the relevance of various approaches to assessing such an important concept as «human health». As a result of the analysis of scientific sources related to the concept of disease prevention, different etiologies, the importance of individual changes in the life cycle (the activity of the way of thinking and life), as well as the role of relevant physical, intellectual and social factors that directly affect, form and reflect the status of human health have been investigated and studied. Considering this question, the maximum attention was paid to the influence of motor activity, and also to the relationship between motor (life) activity and intellectual and psychological emotional development. According to information references and scientific sources, the relationship between specific diseases and lack of motor activity has been defined. Researches of many scientists proved that an organism with the limited level of physical activity is less stress-resistant, and from so automatically gets in an unhealthy zone. Physiologically – the lack of proper motor (vital) activity disrupts the normal operation of all systems of the body, reduces its stability (immune response), because the lack of movement (physical inactivity) is the root cause of most diseases.

Thus, the most effective means of preventing most diseases and improving the status of human health is – readiness to change thinking and activity of life style, which must necessarily include a set of individually selected (differentiated) health-development daily workloads.

**Keywords:** health signs are intellectual, social and physical components, disease prophylaxis.

Друкована праця містить теоретичний аналіз та наукове обґрунтування актуальності різних підходів, які стосуються оцінки такого важливого поняття як – «Здоров'я» людини. Унаслідок аналізу наукових джерел, які стосуються поняття профілактики захворювань, різної етіології, було досліджено та вивчено важливість внесення індивідуальних змін до життєвого циклу (активність способу мислення та життя людини), а також роль відповідних фізичних, інтелектуальних та соціальних чинників, які безпосередньо впливають, формують і відображають статус здоров'я людини. Розглядаючи дане питання максимальна увага була приділена впливу рухової активності, а також взаємозв'язку між руховою (життєвою) активністю та інтелектуальним і психологічно-емоціональним розвитком. Відповідно до інформаційних посилань та наукових джерел визначено взаємозв'язок між конкретними захворюваннями та відсутністю рухової активності. Дослідженнями багатьох науковців доведено, що організм з обмеженим рівнем фізичних навантажень – є менш стресостійким, а відтак автоматично потрапляє у зону нездоров'я. Фізіологічно – недостатність належної рухової (життєвої) активності порушує нормальну роботу всіх систем організму, знижує його резистентність (імунну відповідь), оскільки, відсутність руху (гіподинамія) – це першопричина більшості захворювань.

Таким чином, найефективнішим засобом профілактики більшості захворювань та підвищення статусу здоров'я людини є – готовність до зміни мислення та активності способу життя, які повинні обов'язково включати комплекс індивідуально підібраних (диференційованих) оздоровчо-розвивальних щоденних навантажень.

**Ключові слова:** ознаки здоров'я – це інтелектуальна, соціальна та фізична складові, профілактика захворювань.

Работа содержит теоретический анализ и научное обоснование актуальности различных подходов, касающихся оценки такого важного понятия как – «Здоровье» человека. В результате анализа научных источников, касающихся понятия профилактики заболеваний, различной этиологии, были исследованы и изучены важность внесения индивидуальных изменений в жизненного цикла (активность образа мышления и жизни человека), а также роли соответствующих физических, интеллектуальных и социальных факторов, которые непосредственно влияют, формируют и отражают статус здоровья человека. Рассматривая данный вопрос максимальное внимание было уделено влиянию двигательной активности, а также взаимосвязи между двигательной (жизненной) активностью и интеллектуальным, а также психологически-эмоциональным развитием. Согласно информационным ссылкам и научным источникам определена взаимосвязь между конкретными заболеваниями и отсутствием двигательной активности. Исследованиями многих ученых доказано, что организм с ограниченным уровнем физических нагрузок – менее стрессоустойчив, и соответственно автоматически попадает в зону нездоровья. Физиологически – недостаточность надлежащей двигательной (жизненной) активности нарушает нормальную работу всех систем организма, снижает его устойчивость (иммунный ответ), поскольку, отсутствие движения (гиподинамия) – это первопричина большинства заболеваний.

Таким образом, наиболее эффективным средством профилактики большинства заболеваний и повышения статуса здоровья человека является – готовность к изменению мышления и активности образа жизни, которые должны обязательно включать комплекс индивидуально подобранных (дифференцированных) оздоровительно-развивающих ежедневных нагрузок.

**Ключевые слова:** признаки здоровья – это интеллектуальная, социальная и физическая составляющие, профилактика заболеваний.

**Introduction.** Scientists are permanently looking for new pharmacological and technical means to treat diseases that have already arisen as a result of investigation, instead of developing a general preventive behavioral scheme for the observance of actions and behavior that will allow to preserve of the health of the human body. Until there is a general understanding of the causal effects of one's own diseases, the quantity of people with different diseases will be increasing, and it will be permanently difficult to achieve a therapeutic result [1].

The problem of the general health of the human body has been important in ancient times and remains relevant today. The interest to this question and the importance of its status, for the time being, only increases and attracts the attention not only of physicians, but also specialists in other fields.

Today, in the system of health care there is no concept of saving health, with the observance of which a person could have certain guarantees, as to the general status of «Health».

**The aim of present** of this scientific report was to study, based on their own research [7, 8, 12, 13] and studies of a number of well-known authors [1, 2, 4, 5, 10] factors that affect the health and condition of the human body as a whole.

**Materials and methods.** Since ancient times and till the beginning of XX century conditions of

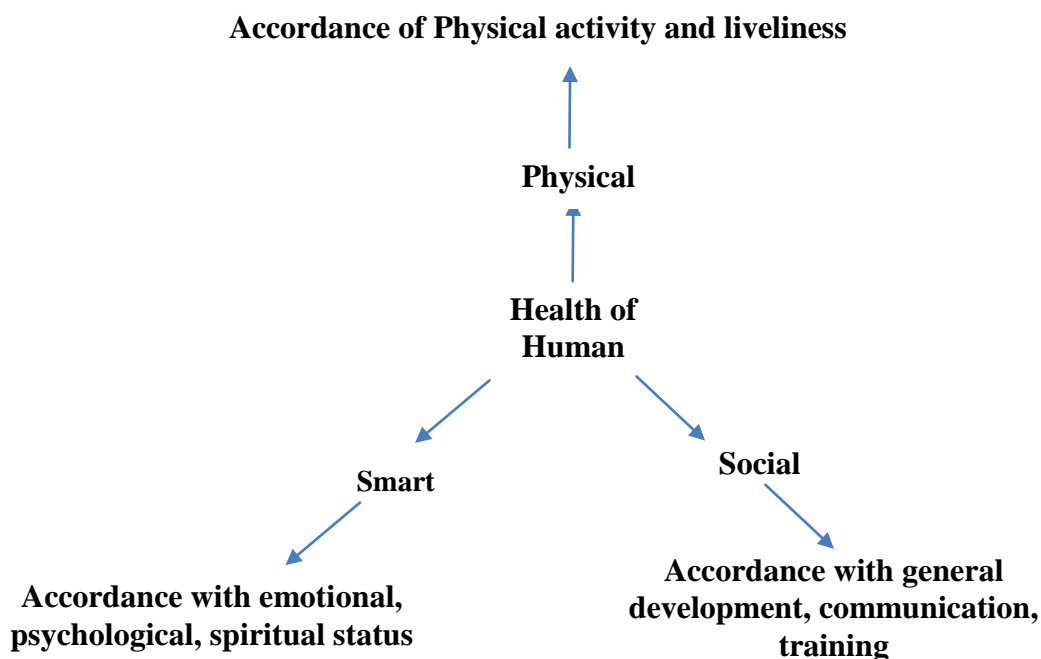
existence of the man defined natural factors and subconsciously social-physical-mental activity, so-called, biological adaptation during the millenniums.

Further in connection with industrial development and consequences of social and economic activity of man on the planet there were changes of living conditions, and now there is a certain anthropological catastrophe. The scale and the actuality of this problem are the motivators for fundamental research of the phenomenon of human health, its components, the search for new ways of positive influence [6, 14].

Nowadays health is defined as a philosophical, social, biological, medical, economic category, as individual and social value, as a dynamic phenomenon of systemic character, constantly interacting with the environment.

In the general context of health is the ability of the body to adapt to the environment, to interact with it based on the biological, mental and social essence of a human.

The preamble to the Constitution of the World Health Organization (WHO) notes that health is not only the absence of disease or physical defect, but a state of complete physical, mental and social well-being. The schematic representation of health status criteria can be described as follows:



Such criterion as psycho-emotional balance is important in human life. About this component of the general health status of people say so

– all diseases from the nerves. This means that sharp deviations from the generally accepted norm of emotional relations of the «framework

of behavior» somehow incomprehensible can affect the deviations in the work of internal organs of the person. For example, acute nervous stress – in a person who leads a quiet monotonous lifestyle (for a long time), can cause abnormalities in the heart, gastrointestinal tract or other organs. The insidiousness of the consequences of stress exposure is that the organ of such a person usually does not stop its work, but its functioning somehow incomprehensibly deviates from the usual program of activity, and he can not return to the original working condition. This may mean that the impulses or signals that have started to arrive at the organ after the stress have been experienced are altered and incorrect. And in such a way the organ has to execute these new modified orders according to internal rules of human organism functioning [10].

In many cases, a person can influence his or her own health and change it for the better. According to Hippocrates, «for a person who is sick and unable to change the way he lives, there is no way to help!». This is because even in ancient times it was believed that the cause of disease was the wrong way of life. The norm of life is an important component of culture, which has a positive effect on the formation of health and is determined by our mind.

The state of health of the population of Ukraine is affected by emissions of harmful substances, which, according to the Ukrainian Scientific Hygienic Center of the Ministry of Health of Ukraine, are emitted into the environment about 800 thousand tons of solid substances, 1305 thousand tons of carbon dioxide, 375 thousand tons of nitrogen oxide. Harmful substances of the environment are determined in human biosubstrates: bone tissue, teeth, hair, breast milk, blood. Biological monitoring is used to control the real impact of harmful substances on the organism. About 20 million people live in areas of chemical contamination in Ukraine. For example, in the period 1990-1997, the number of people living in the areas of chemical contamination is about 20 million. In the Lviv oblast, the birth rate decreased from 14.0 to 10.2 and the death rate increased from 10.5 to 12.1 (per 1000 people). The disease incidence in Lviv region has increased from 81536 to 124450 over the last 10 years, in Zakarpattya region from 72,235 to 87,535 [2].

In many scientific works the state of health and physical development of children and adolescents was studied. To this end, the following demographic indicators are used: fertility, mortality, life expectancy, morbidity and physical development level. Scientific research shows that the medical and demographic situation in Ukraine has significantly deteriorated as a result of the Chernobyl disaster of 1986. Large amounts of radionuclides have entered the external environment and the environmental situation has deteriorated over a large area of Ukraine, Belarus and Russia. Radioactive substances were incorporated into natural processes in air, water and soil environments. At present, the environmental situation has become even more intense. There is an increase in the morbidity rate, diseases of blood, hematopoietic organs, neoplasms, musculoskeletal system, congenital malformations, respiratory diseases. The incidence of mental disorders is increasing in Ukraine. The researchers explain the deterioration of physical and mental health of adolescents by the use of alcoholic beverages, narcotic and other psychotropic substances [4].

In such case physical health – characterizes the level of development and functional capabilities of organs and systems of human body as a whole.

Key indicators of physical health are the heart, the immune system and the body's ability to absorb oxygen.

**Signs of physical health include:**

- healthy teeth
- flawless smooth skin
- shiny and strong hair and nails
- good appetite and sleep
- adequate joint mobility
- muscle tone and elasticity
- proper functioning of the heart muscle
- proper lung function
- stressful recovery
- high capacity for work
- sense of freshness

**Signs of physical ill-health refer to:**

- damaged teeth
- skin lesion and discoloration
- affected hair and nails
- lack of appetite (digestive disorder) and sleep disturbance
- lack of muscle tone and elasticity

- cardiac muscle malfunction
- malfunctioning of the lungs
- inability to handle physical activity
- increased fatigue
- a general weakness.

In this way, physical health provides the whole body with energy for everyday activities, facilitates adaptation to the environment (e.g. weather conditions) and helps to survive in extreme situations. Physical health also enhances immune status and protects the body against all kinds of bacteria, infectious and viral factors. It helps to avoid injuries and promotes rapid recovery of people who are ill.

In order to maintain physical health, it is necessary to lead a healthy lifestyle (avoid harmful effects on the body of tobacco, alcohol and other toxic substances): to observe the daily routine and fully rest, to observe the rules of personal hygiene, to maintain a normal weight and physical fitness, as well as to undergo periodic medical examinations.

On the poor health of young people is indicated by their level in conscripts. The number of healthy draftees has halved in the last 10 years. Among the conscripts, there is a lack of physical development, and respiratory, blood and eye diseases are the most common. Between 20 and 80 per cent of adolescents have pathologies of 2–5 systems and their physical development indicators are deteriorating. These data are given for some districts of Transcarpathian region, where the total morbidity of draftees varies from 408.25 % to 179.26 % [9; 10]. In connection with the above data, the deterioration of the health status of young people is of great importance. In this direction an important role is given to physical exercises and adaptation means of physical education of youth [3].

The problem of young people's health is key due to a variety of factors. It is a dynamic age group that is in the process of forming, a population that is easily vulnerable from a health perspective. Young people are the main reserve and a significant part of the country's labour force. Physical culture and sport are becoming important means for young people to maintain and strengthen their physical and psychological health. Physical improvement is focused on the formation of physical culture of the individual. Physical education will not yield long-term positive results if it does not encour-

age individuals to self-education and self-improvement. Scientific research and practice confirms that, having started systematic physical exercise and sports, young people give up health destroyers (smoking, alcohol, drugs); adhere to the right daily routine, strictly follow the rules of personal hygiene and try to adhere to a rational diet. That is why physical culture and sports are an effective means of preserving and promoting the health of various population groups. Among the many forms of health-improving physical training, rhythmic gymnastics (aerobics), pilates, shaping, swimming, cycling and hiking, cross-country skiing, etc. are of particular importance. Physical activity in itself does not give a health-improving effect if it is not used correctly. Physical activity should be optimal for each person. It is necessary to observe a number of principles, among which the gradualness and repeatability, consistency, individuality and regularity of physical training [7; 8; 9]. The results of research [8; 9] show that physical exercise strengthens health, maintains an optimal level of mental and physical performance, and strengthens neuro-psychological resistance to emotional stress factors. Good nutrition plays an important role in a person's health. When used correctly, food becomes a powerful preventive and treatment factor. Here, the focus is on the diet, the quantity of food, and its qualitative composition as an important factor of health and culture of nutrition [5].

The emotional sphere is important for human health. The scientific and technological revolution, global and environmental changes, the growth of all kinds of information increase the requirements for the psychophysiological potential of a person, his or her health, the role of which in the system of social values of society is constantly growing. Our mood largely depends on the mood of others, on their emotional reactions, their attitude towards us. Unfortunately, our health, life, tactlessness, rudeness, hooliganism, bureaucracy are not yet completely outdated. It badly affects the «psychological climate» in the team, causes and supports negative emotions. The emotional sphere is badly affected by deficiencies in the work of household enterprises, transport, trade. Mood spoils the need to waste time in queues to visit many government and canning institutions, failure to meet the deadline for one or another order. Emotional

stress is accompanied by changes in the cardiovascular and respiratory systems, shifts in physical and chemical blood constants, changes in blood coagulation products.

In such cases it is necessary to switch emotional excitement to the motor zones of the brain as much as possible. In this way, movement becomes a barrier against many cardiovascular and other diseases. To improve the supply of oxygen to the brain, a person under emotional stress should take glucose, vitamins and essential amino acids. The daily diet should contain fruits and vegetables. Some of them have a medicinal effect. Table beet juice contains a high content of vitamins (C, P, B, PP) and prevents their deficiency in the body during exercise, as well as in spring. Beet juice – one of the most iodine rich products. Preparations nettle double home rich in minerals and vitamins, nettle protein contains 9 essential amino acids.

This composition provides a positive effect on the recovery of strength after hard work or illness. Cranberries – a common plant, whose medicinal properties have long been known. Cranberries are rich in organic acids. Due to its high content of ascorbic acid, cranberries are indispensable for anemia and inflammation pro-

cesses. Cranberry juice reduces body temperature for one or two hours and makes it gradually and softer than traditional antipyretic products. Celery is a plant known since ancient times. Celery leaves are used as a medicinal plant with a tonic, anti-inflammatory and fullness propensity.

The biomedical means, including pharmacological preparations, are also important in maintaining operability. Among the pharmacological preparations are vitamins, cocarboxylase, potassium orotate, panangine and asparticam, containing potassium and magnesium salts, glutamic acid, adaptogens (ginseng, Chinese lemongrass, extract of eleuterococcus). These funds should have energetic, plastic and antioxidant effects, activate metabolic processes.

Activity of a human personality is defined by a complex of regulators of behavior which components are intellectual, emotional-volitional sphere of mentality, personal culture [11]. So, the further researches of scientists should be directed on search of new methods and means, creation of powerful motivational preventive schemes for support and protection of human health.

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