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DEPARTMENT OF GENERAL HYGIENE
AND PHYSICAL CULTURE

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**HYGIENE AND ECOLOGY OF HUMAN. HISTORY
OF FORMATION**

Methodical recommendations for students

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Hygiene and ecology of human. History of formation: methodical recommendations for medical students

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This training manual outlines the basics of such scientific disciplines as hygiene, sanitation and ecology, describes their main goals and objectives, applied research methods and types of preventive measures. It shows the development of hygiene in different historical periods and, in particular, at the present stage, the problems of the hygienic significance of the environment and human ecology are considered

The manual contains a list of used and recommended literature. Educational and methodological manual "Human hygiene and ecology. History of formation", prepared in the discipline "Hygiene" in accordance with the Federal State Educational Standard of Higher Professional Education for students studying in the specialty of Medicine (31.05.01).

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Hygiene is the science of preserving and strengthening public health through the provision of preventive measures.

The term "hygiene" in translation from Greek means "bringing health", "healing".

The object of studying hygiene - the main preventive discipline - is a healthy person in close interaction with the environment.

There is one more concept related to hygiene, "sanitaria" (translated from Latin as "health"), which is a practice of hygiene that enforces sanitation, i.e. sanitary measures by the state sanitary- epidemiological service of the country. The sanitary service monitors the implementation in practice of sanitary and hygienic recommendations and antiepidemic measures, developed respectively by hygiene and epidemiology.

For the normal functioning of the human body in the environment, certain conditions are required that are created by physical, chemical, biological and social factors of the environment.

Studying the influence of these factors on the human body, hygiene shows that they can be favorable, negative or a risk factor for health.

The task of hygiene aimed at improving the environmental conditions is to identify the cause- effect relationships between the environmental factors affecting the organism and possible changes in the state of human health.

There are primary, secondary and tertiary prevention.

Primary, or radical, prevention is aimed at eliminating the immediate cause of the disease. Secondary prophylaxis is the early detection of pre-illnesses with a careful medical examination of practically healthy people who were exposed to unfavorable factors of the environment or risk factors for conducting medical prophylaxis and other measures that prevent the onset of the disease: therapeutic and preventive nutrition, the use of personal protective equipment (PPE), etc.

Tertiary prevention, or rehabilitation, is a set of measures to prevent the emergence of complications of an already developed disease.

Ways to increase the body's resistance to environmental factors:

- healthy lifestyle;
 - personal hygiene;
- Tempering the body;
- balanced diet;
 - rational clothes and shoes;
 - physical activity.

With a healthy lifestyle, morbidity and mortality can be reduced by 50%. The environment surrounding a person is a complex set of natural and social factors. The natural • air, water, soil, weather, climate. To social - the conditions of life, work, food, way of life.

The study of the influence of environmental factors on the human body is made by physiological, anthropometric, biochemical, experimental epidemiological methods, as well as by methods of sanitary statistics.

Hygienic diagnosis is the study of the state of the natural and social environment, human health and the establishment of dependencies between the state of the environment and health.

Hygienic diagnosis of health differs from clinical, which is the subject of the disease and its severity. Hygienic diagnosis - donosological, because it is carried out before contacting a doctor. Its are early detection of stress or disruption of the adaptation mechanisms leading to the onset of the disease.

Hygienic diagnosis of pre-illness studies the human immune status, the state of enzyme and antioxidant systems and lipid peroxidation, regulatory mechanisms of the cardiovascular system, mental activity.

At the same time, biological markers are widely used, which are subdivided into biomarkers of the exposition, biomarkers of the effect and biomarkers of the susceptibility.

Ecology is a science that studies the general laws of the existence of living organisms, their interrelationships with each other and with their environment. Human ecology is the science of the general laws of interaction between the biosphere and anthroposystem, human groups (populations) and individuals, the

influence of nature on man and a group of people.

The term "ecology" of Greek origin and in translation means "the science of the house."

Development of hygienic knowledge. Hygienic skills were accumulated in humanity in very remote times. They were primitive, elementary. People understood that there are conditions that benefit lives, and there are unfavorable conditions. This knowledge related to soil protection from pollution, diet, sleep and rest, body care. The history of hygiene is inextricably linked with the development of human society, its culture, productive forces.

Hygienic knowledge in the Ancient World. In the IV-I centuries. BC. in Egypt, India, China, Greece, hygienic knowledge was a system of practical domestic rules, religious beliefs and laws, of which the Indian code of laws of Manu is best known. In ancient China, there was an interesting custom to pay for a doctor's work as long as his patients remained healthy, which was in fact the motto: "It's better to prevent diseases than to treat them."

In ancient Greece, Hippocrates (460-377 BC) wrote a book "On Air, Water and Locality," in which he pointed out that environmental conditions affect the development of the human organism and the emergence of diseases. With the same era, historians attribute the appearance of the term "hygiene" itself. Then everything was deified, and the medicine had its own god - Asclepius, who had daughters - Hygia and Panakei. Hygieus worshiped healthy people, and Panakeke - sick. Hygia was portrayed in the form of a beautiful girl holding a bowl in her hands, entwined with a snake. The snake symbolized wisdom, and the cup - life, in which there is always a place for troubles, poisons. The snake drank these poisons and promoted the improvement of life. It is interesting that the bowl with its snake wrapping it has been preserved so far as the emblem of medicine.

The Roman Empire inherited the culture of ancient Greeks primarily in the field of personal hygiene, developing the construction of bath-baths, water-pipes and sewers, and also practicing control over the quality of food products in the

markets, which indicated the - the manifestation of sanitation.