SCHOLASTIC:
Journal of Natural and Medical Education
Volume 2 Issue 8, Year 2023 ISSN: 2835-303X
https://univerpubl.com/index.php/scholastic

Issues Related to Human Ecology and Their Effects on the Human Organism

Azimov Jurabek Shavkatjon o‘g‘li, Sadullayeva Umida, Ibodullayeva Sabrina
Students of Tashkent Medical Academy

Article Information

Received: June 02, 2023
Accepted: July 01, 2023
Published: Aug 10, 2023

Keywords: *Human ecology, organism, matter and energy exchange, adaptation to climate, ecological rule of Bergman and Allen, infectious diseases.*

ABSTRACT

This article presents information on the concept of "Human ecology", the constant exchange of matter between man and the environment, environmental factors, matter and energy exchange, diseases arising as a result of environmental problems, the body structure of the organism in adaptation to climatic conditions, Bergman and Allen's ecological rule.

Introduction

A lot of information about the concept of "human ecology" has been explained by scientists in different ways. However, accurate information appeared in the literature in the 1920s. But until now, it has not been fully defined. G.I. According to Saregorodsov (1976), "human ecology" is a science that studies the relationship between people and the environment. According to A. G. Voronin, it is necessary to study the influence of external environmental factors on a person and the external environment of a person. This concept is being studied in many years. Human life cannot be imagined without nature and external factors. There is a constant exchange of substances between people and the environment. Human life is interconnected with other members of the biosphere: plants, animals, microorganisms. His body is subject to the laws of nature, biological rhythm, seasonal temperature changes, sunlight and others [1].

However, it is distinguished from other organisms by the fact that the organism is highly developed and is active in the society without becoming a simple biology. Due to the development of human nature, environmental factors can not only become negative, but also be active and transfer to nature. Human activity in relation to the environment can be in two directions: positive and negative. Scientific-technical revolution also lies in human ecology. This is only 1% of human history, the remaining 99% is organized by basic climate, alimentary, biological, and geochemical processes [2]. This leads to the differentiation of human ecology, that is, to the adaptive type.

Adaptive type is derived from the meaning of "adaptatio" and is the most adapted reaction norm of a person to any environment from a morphological, immunological, geographical, biochemical point of view. This is based on volatility. Variation means adaptation to the environment in which the external environment changes, starting from the embryonic period.

Human ecology or anthropoecology is the central part of social society, its socio-natural and natural-scientific basis. Human ecology summarizes relevant views of demography, medicine, morphology, anthropology, and genetics. These sciences are combined in one piece on the basis of the fact that the object of research is the same. That object is a human being, a rare creature belonging to two worlds, natural and social. In this regard, it should be noted that the main object of human study in connection with the problem of "man - natural environment" is not the person in general and even his ecology, but the part of human ecology that is manifested through the connection with nature [3].

Literature analysis and methodology.

Human ecology is a complex interdisciplinary scientific direction. He studies the laws of interaction of human populations with the environment, the growth of the population under the influence of this interaction, the problems of goal-oriented management, the problems of maintaining and developing the health of the population.

It is clear that in human ecology, in its main directions, the social-objective basis prevails, because the study of the direct interaction of man with nature through society is the objective content of this subject.

In the process of human activity, he creates and uses powerful energy sources (nuclear thermonuclear reactions). The uniqueness of man as an ecological whole is that his activity is active and creative. The ability to create an artificial environment around humans also distinguishes it from other ecological conditions. In the study of human ecology, the influence of the biogeographical characteristics of the environment on the biological variability of the human population, and the issue of human health in anthropoecological systems are of great importance.

The science of anthropoecology studies the formation of anthropoecological systems, the laws of living and development, as well as the norms of a healthy lifestyle of a person, and the factors affecting their health (physical, chemical, biological, social) on a large scale [5].

Air temperature, humidity, pressure, solar radiation, light, electromagnetic field and noise are examples of physical factors affecting human health.

Results

In accordance with the decree of President Shavkat Mirziyoyev of April 21, 2017, the system of state management in the field of ecology and environmental protection has been improved as part of the work being carried out in the field of ecology in the Republic of Uzbekistan. We can say that the State Committee for Ecology and Environmental Protection has been reorganized, and it has been assigned huge tasks to improve the ecological situation, collect, store, transport, dispose of and process household waste. Together with the ministries of the State Committee for Ecology and Environmental Protection, a 5-year program was developed on the regulation of waste collection stations in cities and the development of sanitation services in rural settlements.

Chemical factors that affect human health include soil, water, various toxins, high salt concentration and acidity in food products, medicines, petroleum products, an increase in the amount of toxic gases in the atmosphere, and biological factors include disease-causing factors, ecto- and endoparasites, poisonous plants, harmful insects. Humans can easily adapt to heat and cold. Those who live in hot countries grow strongly, so they bloom a lot. Irrespective of race and nationality, strictness is the same for everyone. The body structure of the organism in climate change is subject to Bergman's and Allen's ecological rule. According to Bergman's law, the body size of the representatives of the organisms that are included in the anbitatura grows in the place where the temperature decreases. According to Allen's rule, when the environmental temperature rises, the representatives of the species that have grown in the environment have longer arms and legs. In humans, body size depends on the skeleton of the legs. There are various environmental factors that cause this or that disease [6].

One of them is various pesticides (pesticides) and mineral fertilizers that pollute the environment and are widely used in agriculture. Products rich in these toxic substances can cause various diseases if they enter the human body. Some infectious diseases appear as a result of the loss of shrubs and trees, because residents leave the places where the malaria flies and rats live and move to the places where people live, and it leads to the appearance of a number of infectious diseases. But the susceptibility of people to infectious diseases is not the same. For example, people whose erythrocytes are similar in shape (which leads to specific anemia) do not get malaria, even if they live in a place where malaria is the most common. Summary Today, it has already become clear that human health is a consequence of the complex history of society and its current development. Therefore, none of the natural sanitary-hygiene measures, no matter how scientifically based and technically advanced they are, cannot ensure the preservation, development, and protection of the health of society members. Scientific organization of the social production economy structure of the whole society, creation of work and rest conditions, conditions of spiritual and physical training, development of lifestyle culture - all these are a condition and guarantee of health protection and strengthening. These problems can be solved only when the interaction of the society with natural conditions is directed to the improvement of this effect. It covers all geographical regions, all processes in animate and inanimate nature, all areas of our planet. Here it is not just about protecting nature, but about preserving and developing nature in order to create favorable social and ecological conditions for further improvement of harmony between man and nature. Nature protection is one of the most important means to achieve the highest goal - a comprehensively developed human and human society. Human ecology is not subject to only biological laws, and it cannot be understood without the interaction of these laws with social laws. This is explained by many reasons. The first reason, says T.N. Fedoseev, is that - the revolution of modern science and technology, among other things, leads to the fact that man himself makes various and always unpredictable changes in human ecology, and in turn, these changes have an equally important impact on him. As a result, there are acute and largely unsolved problems of human adaptation to such changes. Mutual relations between man, society and nature are not built on the basis of biological and ecological foundations, but on the foundations of social labor activities that change them. Man's relationship to nature and nature's relationship to man are realized through social production forces, production relations and specific labor processes in which man participates.

Literature

1. Sylvia Mader, Michael Windelspecht. Human Biology. - 2015. - 14th Edition. - Publisher: McGraw-Hill Education.
2. Karp Gerald Cell and molecular biology concepts and experiments/ 7 th Edition.
3. Khalikov P.Kh. and others. "Biology" State Scientific Publishing House. Tashkent, 2005.
4. Nishonboyev K.N., Hamidov J.H. - "Medical Biology and Genetics" State Scientific Publishing House. Tashkent, 2005.
5. Baryshnikov E.N,-Meditsinskaya parasitology. Synopsis of lectures for medical schools. Vlados-press, 2005.
6. Yafaev R. - Medicinal parasitology. Uchebnoe posobie. 2003 g

Internet information.

1. http://www.medline.ru.
2. http://www.freebooks4doctors.com/fl/spec4.htm;
3. http://www.ncbi.nlm.nih.gov/entrez/