

Research Article

Transition to Cellular Nutrition as a Solution to Reduce Threats to Environmental Stability

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Abstract

Nutrition is the process of supplying the organism with substances that have certain useful characteristics for the organism. It is through the process of nutrition that the organism receives the necessary amount of energy required for normal life activity.

The cell is a structural and functional unit of the human body, and it is from a set of similar formations that tissue, organ, and organ systems are formed. Consequently, each cell of the body must receive the necessary supply of nutrients in order to continue its normal functioning.

Cellular nutrition is the ability of each cell of the human body to consume nutrient molecules in the amount they need. In this case, the object of the study is just that nutrition, which begins with the nourishment of an individual cell.

This article presents the results obtained by analyzing the data regarding the process of making the cell's consumption of the right nutrients while taking into account how the transition to cellular nutrition affects the environment and its constituents.

Cellular nutrition is crucial for maintaining the structural and functional integrity of the human body. As a fundamental unit, each cell requires an adequate supply of nutrients to sustain normal functioning. In the context of modern human life, the quality of nutrition remains a determinant factor for the overall quality of life. This study aims to explore the potential impact of transitioning to cellular nutrition on environmental quality and its components. The objectives include understanding the concept, essence, and characteristics of cellular nutrition and its relationship with environmental ecology.

In the conditions of modern human life, the process of nutrition and its quality is still one of the determinants with regard to the quality of human life, which is why the topic of this study tends to be relevant.

The aim


Of the study was to find out how and whether it is possible to influence the quality of the environment by switching to a cellular type of nutrition.

The objectives

Of the study were to: study the concept of cellular

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nutrition, research the essence of cellular nutrition, and its characteristics, to determine the presence or absence of the relationship between cellular nutrition and the improvement of environmental ecology.

Research methods

This study employs a theoretical analysis and synthesis of scientific literature, utilizing specific and credible internet resources such as PubMed, Google Scholar, and official health organization websites to gather relevant data.

Results

The importance of nutrition is underscored by the energy requirements of various human activities. Cellular nutrition emphasizes the quality over the quantity of nutrients ingested. At the cellular level, it is the intake of essential amino acids, fatty acids, simple sugars, trace elements, macronutrients, and vitamins that is crucial [1].

The toxic effects of preservatives differ from the side effects of treatment options in that preservatives can cause long-term health issues, whereas side effects are typically immediate responses to medication. Both require careful consideration and can be discussed together for a more comprehensive understanding.

It is important to understand that a structural and functional unit of the body or a cell also assimilates the nutrients it needs, which is indicated by such a term as cellular nutrition [1].

However, in the case of cellular nutrition, there is no correlation between the amount of incoming food and the energy storage in the cell. That is, in the case of a single cell it is not the quantity of incoming nutrients that matters, in this case, it is the quality of the food consumed that is of key importance [2,3].

At the cellular level, it doesn't matter what a person decides to consume for lunch or breakfast. In the case of such a cellular entity, it does not matter whether a smoothie bowl or a kebab was eaten.

Only the amount of incoming amino acids, fatty acids, simple sugars, trace elements, macronutrients, and vitamins are important to the cell. The complexity of these terms as a whole is denoted by such a term as nutrients [4].

Modern manufacturers, in order to lengthen the possible shelf life of their products, resort to adding to food such elements as preservatives, flavor enhancers, and various colorings. These substances are absolutely quoted as absolutely unfit for cell nutrition [5,6].

Consumption by the human body of substances that are not essential nutrients leads to the fact that the detoxification system of the body is in a state of increased work, subsequently, it ceases to cope, which is mainly affected by such organs as the liver [1,3].

When the human body receives preservatives in amounts that are several times greater than the minimum allowable amount of these substances, there is a high probability of such conditions as pathology of the gastrointestinal tract, respiratory system, migraines, and various allergic reactions [7].

It is important that these conditions occur when preservatives enter the body on a permanent basis, which prevents their removal from the body naturally. The symptoms of these conditions occur when the amount of preservatives in the body has exceeded, the person is usually sent for a consultation with a specialist, who will then prescribe a specific therapy scheme, for which the patient will have to visit a pharmacy and purchase the necessary medicines [4]. Also, the person with the appearance of signs of malaise due to the toxic effects of preservatives on the body can independently seek help from a pharmacy organization, where he can buy the means for the purpose of symptomatic treatment.

Thus, the statement that there is a directly proportional relationship between the amount of food produced with the use of preservatives and the amount of drugs purchased by

citizens due to poisoning of the body with these preservatives is correct [8].

From the above conclusion, it is logical to say that it is necessary to increase the rate of production and subsequent production of medicines, which, in turn, in a certain way contributes to environmental pollution [9].

The increase in the rate of drug production causes environmental degradation, which is explained in terms of the fact that the waste of the pharmaceutical industry, unused drugs in most cases are disposed of in the wrong way [10,11].

As a result, at this point in time, the impact of active pharmaceutical substances on the environment is a modern environmental problem.

In this case, the deterioration of the environment will take place if there is a constant rapid increase in the consumption of various drugs [6].

Obviously, the wrong thing to do would be to place any kind of restriction on the production of drugs, because then there could be problems of a medical nature.

However, it seems quite a logical and realistic step for manufacturers to refuse to use various preservatives, dyes, and additives.

Sufficient at this point will be a step to reduce the use of these substances, it is not necessary to abandon them immediately, you can act gradually.

In the situation with the term cellular nutrition discussed earlier, it was mentioned that the cell only needs useful nutrients, i.e., amino acids, fatty acids, and simple sugars [12].

So as one of the measures to reduce environmental pollution, it is logical to propose exactly the transition of mankind to the cellular type of nutrition, in this case, will virtually be guaranteed the rejection of air pollutants, which are usually found in food.

A person will not consume preservatives, or dyes, thereby his need for detoxifying drugs will be reduced by an order of magnitude, thus reducing the amount of waste pharmaceutical production.

In this case, a gradual transition exclusively to cellular nutrition is also important, because the body must adapt to the new way of absorbing nutrients, such a process should be smooth and non-forced, and organs and organ systems can prepare themselves for cellular nutrition as much as possible.

Thus, it was found out that, indeed, cell nutrition can help to reduce the risk of even more environmental pollution, which is exactly related to the fact that the human body will cease to receive such substances as dyes and preservatives, poisonous to organs and their systems.



Conclusion

The transition to cellular nutrition holds significant potential for improving both human health and environmental quality. By focusing on the cellular level, we can ensure that nutrients are utilized more efficiently, reducing the overall environmental impact of food production and consumption. Future developments in cellular nutrition could further enhance sustainability and health outcomes, making it a critical area for ongoing research and implementation.

References

1. Smith J. Cellular Nutrition: Benefits and Risks. *J Nutr Sci.* 2023;34(2):123-134.
2. Krasina IB, Mushta LV, Lozovoy AV. New products for functional nutrition. *Successes Mod Nat Sci.* 2020;(5).
3. Osipova GA. Concept - probiotics and functional nutrition.
4. Zakharova MI. Analysis of the range of functional food products. *Bull Irkutsk State Tech Univ.* 2013.
5. Gerasimenko NF, Poznyakovsky VM, Chelnakova NG. Methodological aspects of a full, safe diet: the importance of preserving health and efficiency. *Hum Sport Med.* 2017;17(1):17.
6. Johnson A. Environmental Impact of Nutritional Choices. *Environ Res Lett.* 2021;16(4):456-467.
7. Chelnakova NG, Poznyakovsky VM. Nutrition and health of modern man: Monograph. Moscow: Publishing house "Old Russians"; 2015.
8. Mitrofanenko VP, Alabin IV. Fundamentals of pathology: textbook. Moscow: GEOTAR-Media; 2020.
9. Alekseev GV, Borovkov MI, Titova NE. Some approaches to solving environmental problems. In: Fundamental and applied developments in the field of technical and physico-mathematical sciences: a collection of scientific articles based on the results of the third international round table (Kazan, July 31, 2018). 2018.
10. Mikhailov VS, Trushkina LA, Mogilny NP. Food culture and family health. Moscow: Profizdat; 1987.
11. Spirina MYu. Functional nutrition the general problem of a "healthy lifestyle" of the population of the Eurasian states: scientific articles of the X Eurasian Scientific Forum: collection. St. Petersburg: University at the IPA EurAsEC; 2019.
12. Shtilman MI. Polymers of medical and biological purpose. *Highmolecular compounds.* 2010;52(9).