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¿Qué es la nutrición?

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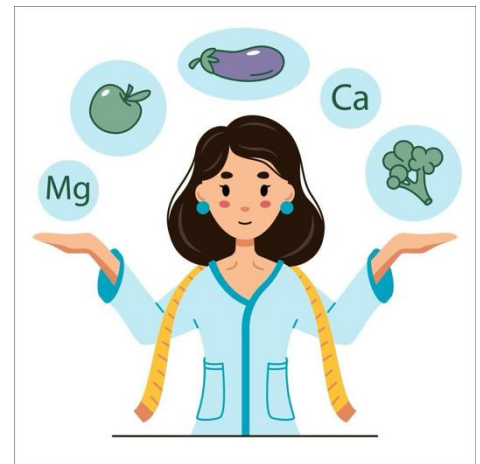
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Introduction

What is nutrition?

Nutrition research is a multidisciplinary field that focuses on the study of foods and their impact on human health. As society advances, new questions arise about how different nutrients affect our well-being, the development of diseases and quality of life. This field spans from food biochemistry to epidemiology, exploring not only what we eat, but also how our eating habits influence our health over time. The importance of this research has become increasingly evident in a world where chronic diseases, such as obesity and diabetes, are on the rise. Through clinical and epidemiological studies, researchers seek to identify dietary patterns that promote healthy living and prevent diet-related diseases. Additionally, nutrition research also addresses critical issues such as food security, the environmental impact of our food systems, and inequalities in access to nutritious foods.



Investigation

What is nutrition and what is it made up of?

Nutrition and how it is formed: Nutrition is the biological and chemical process through which organisms obtain, assimilate and use the nutrients necessary for their growth, development and maintenance of health. This field encompasses not only food intake, but also how food is metabolized in the body and its impact on overall health.

1. Essential Nutrients Nutrients are substances that the body needs to function properly. They are classified into several categories:

- Carbohydrates: They are the main source of energy for the body. They are divided into simple (sugars) and complex (fibers and starches). Complex carbohydrates, such as those found in whole

grains, legumes, and vegetables, are preferable because they provide sustained

energy and are rich in fiber. - Proteins: They are essential for tissue growth and repair. They are made up of amino acids; Some of these are essential, meaning they must be obtained through diet. Protein sources include meat, fish, dairy products, legumes and nuts.

- Lipids (fats): They provide concentrated energy and are important for the absorption of certain vitamins (A, D, E and K). Healthy fats, such as those found in avocados, nuts, and olive oil, are beneficial for cardiovascular health.

- Vitamins: They are organic compounds necessary in small quantities for various metabolic functions. Each vitamin has a specific role; For example, vitamin C is crucial for a healthy immune system.



- Minerals: Inorganic elements that are also essential for various bodily functions. Examples include calcium (important for bones), iron (crucial for red blood cell formation), and potassium (essential for muscle function). - Water: Although often overlooked, water is vital for all bodily functions. It is necessary for digestion, nutrient transport and regulation of body temperature.

2. Functions of Nutrition Nutrition has several key functions:

- Energy provision: Nutrients provide the energy necessary to carry out daily activities. - Growth and development: Adequate nutrition is essential during critical stages of growth, such as during childhood and adolescence.

- Health maintenance: A balanced diet helps prevent chronic diseases such as type 2 diabetes, cardiovascular diseases and certain types of cancer.

- Regulation of metabolism: Nutrients are cofactors in biochemical reactions that regulate cellular metabolism.

3. Impact on Health The quality of nutrition has a direct impact on overall health:

- Malnutrition: It can result from both insufficient and excessive intake of nutrients. Malnutrition can lead to problems such as a weak immune system, delayed growth, and increased risk of disease.



- Obesity: An excess of calories due to a diet high in sugars and unhealthy fats can lead to obesity, which is related to various chronic diseases.
- Chronic Diseases: Research has shown that a diet rich in fruits, vegetables, whole grains and healthy fats can reduce the risk of developing chronic diseases.

Is nutrition a branch, science or discipline?

Nutrition is considered both a science and a discipline.

Here I explain a little more about each aspect:

1. Science Nutrition is based on scientific principles and studies that investigate how nutrients affect the human body. This includes areas such as biology, chemistry and physiology. Nutrition researchers conduct experiments and studies to understand the relationship between foods, nutrients, and health. For example, they study how vitamins and minerals influence metabolic functions or how certain dietary patterns can prevent diseases.
2. Discipline As a discipline, nutrition covers a wide range of topics including food education, diet planning, food analysis, and research on eating habits. It also involves practical aspects, such as working with individuals or groups to improve their health through diet and lifestyle changes.
3. Interdisciplinarity Furthermore, nutrition is an interdisciplinary discipline that connects with other areas such as medicine, psychology (in relation to eating habits), sociology (in relation to cultural influences on food) and economics (related to access to healthy foods).

Nutrition is a science that also acts as a practical discipline focused on improving health through diet. If you have more questions about this topic or want to delve deeper into a specific area, let me know!





What relationship does it have with other branches?

Nutrition has a close relationship with several branches and disciplines, which makes it a very rich and diverse field. Here I detail some of the most relevant connections:

Medicine Nutrition is essential in medicine, since many health problems are related to diet. Doctors often consider diet as part of treatment for diseases such as diabetes, hypertension, and cardiovascular disease.



Biology Biology provides the knowledge about how nutrients interact with the body at the cellular and molecular level. This includes the study of how food is digested, absorbed and used by the body.

Chemistry Chemistry is essential to understanding the composition of foods and how different nutrients affect biochemical processes in the body. This includes understanding chemical reactions that occur during digestion and metabolism.

Psychology Psychology relates to nutrition through the study of eating behaviors, the emotions associated with food, and how these can influence food choices. Psychology also helps address problems such as eating disorders.

Sociology Sociology examines how cultural, social, and economic factors affect food decisions. This includes the study of eating habits within different communities and their relationship to cultural identity.

Economy Economics relates to nutrition by analyzing access to healthy foods, food costs, and how agricultural policies can influence the availability of certain products.

Education Nutrition education is key to promoting healthy eating habits. Educational programs help people understand the importance of good nutrition and how to make informed choices.

Together, these disciplines contribute to a comprehensive approach to improving health and well-being through diet.

Current importance of nutrition in Mexico

Nutrition in Mexico is a crucial issue due to a series of challenges that affect the health of the population. Here I present some key points about the current importance of nutrition in the country, focusing on data on malnutrition, malnutrition and their impacts on different age groups:

1. Malnutrition - Children: Child malnutrition continues to be a significant problem in some regions of Mexico, especially in rural and marginalized areas. According to data from the National Health and Nutrition Survey (ENSANUT), around 7% of children under five years of age have chronic malnutrition, which can affect their growth and cognitive development.

2. Malnutrition - Adolescents and Adults: Malnutrition is not limited to a lack of nutrients; It also includes excess weight and obesity. In Mexico, an alarming increase in obesity rates has been observed. According to the same survey, approximately 35% of adults are obese, which carries a higher risk of chronic diseases such as type 2 diabetes and cardiovascular diseases.



3. Child Nutrition - Growth and Development: Good nutrition during childhood is essential for adequate physical and mental development. Malnutrition can lead to problems such as stunted growth and poor school performance.

4. Adolescents - Adolescents face specific risks related to nutrition, such as deficiencies in iron and calcium, crucial during this stage of growth. Additionally, eating behaviors can influence your future health.

5. Campaigns and Programs - The Mexican government has implemented various strategies to address these problems, such as school feeding programs and campaigns to promote healthy habits. However, there is still much to do to improve access to nutritious foods.

6. Social and Economic Impact - Poor nutrition not only affects individual health, but also has significant economic repercussions, increasing health system costs and reducing labor productivity.

7. Nutrition Education - It is essential to increase awareness about the importance of a balanced diet from an early age. Nutrition education can help prevent future health-related problems.

Nutrition is a critical issue in Mexico that requires urgent attention due to high rates of malnutrition and malnutrition. Promoting adequate nutrition is essential to improve public health and the general well-being of the country.

Main diseases derived from poor diet

A poor diet can lead to a series of diseases and health conditions that affect both the short and long term. Here I present some of the main diseases derived from bad eating habits:

1. Obesity - Obesity is a condition characterized by excess body fat, generally caused by excessive calorie consumption and a lack of physical activity. Increases the risk of developing other diseases.

2. Type 2 Diabetes - This disease occurs when the body cannot use insulin effectively, leading to high blood glucose levels. A diet high in sugars and refined carbohydrates contributes significantly to its development.

3. Cardiovascular Diseases - A diet rich in saturated fats, trans fats and sodium can increase the risk of high blood pressure, arteriosclerosis and other cardiovascular problems, such as heart attacks and strokes.

4. High Blood Pressure - A diet high in salt and low in essential nutrients can contribute to high blood pressure, increasing the risk of heart disease and stroke. 5. Digestive Disorders - A poor diet can lead to problems such as irritable bowel syndrome, constipation, gastritis or gastroesophageal reflux disease (GERD), due to a lack of fiber and nutrients.





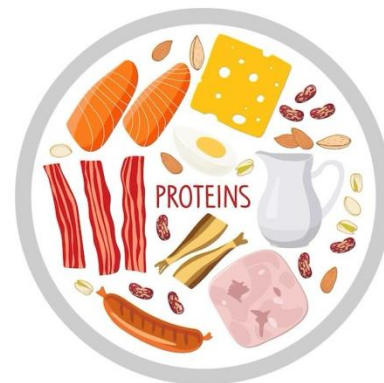
6. Nutritional Deficiencies - Lack of essential nutrients can cause deficiencies that affect different systems of the body. For example: - Anemia: Often caused by iron deficiency. - Scurvy: Resulting from a lack of vitamin C. - Rickets: Associated with vitamin D and calcium deficiency.
7. Cancer - Studies have shown that certain types of cancer are linked to unhealthy diets, especially those high in processed meats and low in fruits and vegetables.
8. Eating Disorders - Poor diet can also be related to eating disorders such as anorexia or bulimia, where there is a dysfunctional relationship with food.
9. Liver Diseases - A diet high in fats and sugars can contribute to the development of non-alcoholic fatty liver, which can lead to liver inflammation and cirrhosis.
10. Bone Problems - Lack of nutrients such as calcium and vitamin D can contribute to the development of osteoporosis, especially in older adults.

Prevention of these diseases is based on adopting healthy eating habits, such as a balanced diet rich in fruits, vegetables, whole grains, lean proteins and healthy fats.

Aim

The goal of nutrition is to provide the body with the nutrients necessary to maintain good health, support growth and development, and prevent disease.

1. Nutrient Supply - Provide the essential macronutrients (carbohydrates, proteins and fats) and micronutrients (vitamins and minerals) that the body needs to function properly.



2. Health Maintenance - Contribute to the general well-being of the body, ensuring that all systems (immunological, digestive, endocrine, etc.) operate optimally.



3. Disease Prevention - Reduce the risk of developing chronic diseases such as diabetes, cardiovascular diseases, hypertension and certain types of cancer through a balanced diet.

4. Support for Growth and Development - Facilitate adequate growth in children and adolescents, as well as maintain health in older adults, ensuring that specific nutritional needs are met at each stage of life.

5. Body Weight Regulation - Help maintain a healthy body weight through an adequate and balanced diet, which can prevent obesity and its associated complications.

6. Optimization of Physical Performance - Provide the energy necessary to carry out daily activities and improve performance in sports or physical exercises.

7. Improvement of Mental State - Positively influence mental and emotional health; certain nutrients can affect mood and cognitive function.

8. Promotion of General Wellbeing - Promote healthy eating habits that not only benefit the body, but also the mind, promoting a balanced and sustainable lifestyle.

In short, nutrition is essential not only for survival, but also for living a healthy and active life.

Conclusion

Nutrition is a fundamental pillar for the comprehensive well-being of human beings. A proper diet not only provides the essential nutrients that the body needs to function properly, but also directly influences our physical, mental and emotional health. Through a balanced diet, we can prevent chronic diseases, optimize our daily performance and improve our quality of life. Furthermore, in the work context, nutrition plays a crucial role in employee productivity and well-being. Encouraging healthy eating habits in the workplace can result in a more dynamic and efficient environment, where each individual can reach their full potential. In short, paying attention to what we eat and how we eat is key to living in a healthy and active way, both personally and professionally. Taking a conscious approach to nutrition not only benefits the individual, but also creates a positive impact on the community and work environment.



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