



The Role Of Micronutrients In Human Health



► Who Is Most At Risk For ◀ Micronutrient Deficiencies And Their Effects?

Despite the vast knowledge we have gained about the essential role of vitamins and minerals in healthy growth and development, the impact of micronutrient deficiencies can be seen in almost every part of the world. Lack of these substances usually occurs when people can not access to useful foods; such as red meat, fish, eggs, dairy products, fruits and vegetables. Nearly 2 billion people worldwide do not have access to food and are constantly suffering from nutrient deficiencies, a condition called latent hunger. Although micronutrient deficiencies affect people around the world, women (especially pregnant and lactating women) and children are more vulnerable to the effects of malnutrition.

Malnutrition combined with infectious diseases causes 3.5 million preventable pregnancy-related deaths and child-deaths each year.

Approximately 45% of under-5 mortality rate are due to malnutrition, resulting in more than 3 million child-deaths each year.



Malnutrition of children and mothers together is the cause of 6.7 cases of diseases in the world.

Even in the richest countries, changing diet and lifestyle patterns lead to poor nutrition, so that calorie imbalances help in increase the incidence of non-communicable and costly diseases such as diabetes, heart disease and stroke. 366 million people worldwide suffer from diabetes, 200 million suffer from osteoporosis and 1.6 billion people are overweight. A diet low in micronutrients is a major cause of malnutrition.





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The minerals needed by the body can be divided into **two general groups**:

1. The main minerals include: calcium, phosphorus, chlorine, magnesium, potassium, sodium and sulfur.
2. Effective minerals, such as iodine, iron, zinc, selenium, fluoride, copper, manganese, etc.

► **Micronutrient Nutrition In Human Health** ◀

Micronutrients are substances that, like other nutrients, are needed for the body. Without micronutrients body is unable to perform its normal metabolism. The body needs a small amount of them. Also, the lack of any of them causes different diseases in humans.

► **Types Of Micronutrients In Vitamins And Minerals** ◀

► Vitamins and minerals are essential for metabolism.

► Vitamins are essential for living organisms and regulate body growth and are divided into two categories: water-soluble (such as vitamins C and B) and fat-soluble (such as vitamins D, E, K and A).



Bones, teeth, nails, skin and hair need minerals to be made. Also, such substances control the body systems and produce energy.

► **What Are The Essential Micronutrients For Health?** ◀

The body does not need a lot of micronutrients, but their effects on the body are widespread. Therefore, small amounts of micronutrients have a big impact on our lives. These materials are very important in the following cases:

- Natural human growth
- Healthy immune system function
- Birth of healthy babies
- Strengthens body function
- Aging with a healthy and natural process
- Normal brain development
- Healthy appearance