

## Malnutrition: A Global Threat

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### ABSTRACT

*Malnutrition is a condition that results from eating a diet in which one or more nutrients are either not enough or are too much such that the diet causes health problems. Not enough nutrients are called undernutrition or undernourishment while too much is called overnutrition. The symptom ranges from Lack of appetite, Loss of fat, muscle mass and body tissue, Depression and Skin may become thin, dry, inelastic, pale, and cold etc.*  
**Keywords:** *Malnutrition, global, threat.*

*malnutrition are mostly caused by Low intake of food, Mental health problems, Digestive disorders and stomach conditions, Lack of breastfeeding and Alcoholism. Treatment may involve; dietary changes, such as eating foods high in energy and nutrients. People with severe malnourishment or absorption problems may need artificial nutritional support, either through a tube or intravenously.*

### INTRODUCTION

Malnutrition is common globally and may result in both short and long term irreversible negative health outcomes. It may involve calories, protein, carbohydrates, vitamins or minerals.[1] Malnutrition is often used to specifically refer to under nutrition where an individual is not getting enough calories, protein, or micronutrients.[2] If undernutrition occurs during pregnancy, or before two years of age, it may result in permanent problems with physical and mental development.[3] Extreme undernourishment, known as starvation, may have symptoms that include: a short height, thin body, very poor energy levels, and swollen legs and abdomen.[4] People also often get infections and are frequently cold. This can affect growth, physical health, mood, behaviour and many of the functions of the body. You can also become malnourished if your diet does not contain the right balance of nutrients.

It is possible to eat a diet high in calories but containing few vitamins and minerals. This means you can become malnourished, even though you might also be overweight or obese. Being malnourished does not always mean that you are skinny [5] [6].

### Types of Malnutrition

**Undernutrition:** This type of malnutrition results from not getting enough protein, calories or micronutrients. It leads to low weight-for-height (wasting), height-for-age (stunting) and weight-for-age (underweight) and can cause the following:

- Weight loss
- Loss of fat and muscle mass
- Hollow cheeks and sunken eyes
- A swollen stomach
- Dry hair and skin
- Delayed wound healing
- Fatigue
- Difficulty concentrating
- Irritability
- Depression and anxiety

People with undernutrition may have one or several of these symptoms. Kwashiorkor, a severe protein deficiency, causes fluid retention and a protruding abdomen [7]. On the other hand, the condition marasmus, which results from severe calorie deficiency, leads to wasting and significant fat and muscle loss (5). Undernutrition can also result in micronutrient deficiencies. Some of the most common deficiencies and their symptoms include:

**Vitamin A:** Dry eyes, night blindness, increased risk of infection (6).

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**Zinc:** Loss of appetite, stunted growth, delayed healing of wounds, hair loss, diarrhea (7).

**Iron:** Impaired brain function, issues with regulating body temperature, stomach problems (8).

**Iodine:** Enlarged thyroid glands (goiters), decreased production of thyroid hormone, growth and development issues (9).

Since undernutrition leads to serious physical issues and health problems, it can increase the risk of death.

#### **Symptoms of undernutrition**

Signs and symptoms of undernutrition include:

- Lack of appetite or no interest in food or drink
- Tiredness and irritability
- Inability to concentrate
- Always feeling cold
- Loss of fat, muscle mass and body tissue
- Higher risk of getting sick and taking longer to heal
- Longer healing time for wounds
- Higher risk of complications after surgery
- Depression
- Reduced sex drive and problems with fertility

In more severe cases:

- Breathing becomes difficult
- Skin may become thin, dry, inelastic, pale, and cold
- The cheeks appear hollow and the eyes sunken, as fat disappears from the face
- Hair becomes dry and sparse, falling out easily

Eventually, there may be respiratory failure and heart failure, and the person may become unresponsive. Total starvation can be fatal within 8 to 12 weeks

Children may show a lack of growth, and they may be tired and irritable. Behavioral and intellectual development may be slow, possibly resulting in learning difficulties. Even with treatment, there can be long-term effects on mental function, and digestive problems may persist. In some cases, these may be life-long [8] [9].

Adults with severe undernourishment that started during adulthood usually make a full recovery with treatment.

#### **Overnutrition:**

The main signs of overnutrition are overweight and obesity, but it can also lead to nutrient deficiencies. Research shows that people who are overweight or obese are more likely to have inadequate intakes and low blood levels of certain vitamins and minerals compared to those who are at a normal weight [10].

This is likely because overweight and obesity can result from an overconsumption of fast and processed foods that are high in calories and fat but low in other nutrients [11].

A study in over 17,000 adults and children found that those who ate fast food had significantly lower intakes of vitamins A and C and higher calorie, fat and sodium consumption than those who abstained from this type of food [12].

#### **Causes Malnutrition**

##### 1. Low intake of food

This may be caused by symptoms of an illness, for example, dysphagia, when it is difficult to swallow. Badly fitting dentures may contribute.

##### 2. Mental health problems

Conditions such as depression, dementia, schizophrenia, anorexia nervosa, and bulimia can lead to malnutrition.

##### 3. Social and mobility problems

Some people cannot leave the house to buy food or find it physically difficult to prepare meals. Those who live alone and are isolated are more at risk [13]. Some people do not have enough money to spend on food, and others have limited cooking skills.

##### 4. Digestive disorders and stomach conditions

If the body does not absorb nutrients efficiently, even a healthful diet may not prevent malnutrition. People with Crohn's disease or ulcerative colitis may need to have part of the small intestine removed to enable them to absorb nutrients [14]. Celiac disease is a genetic disorder that involves gluten intolerance. It may result in damage to the lining of the intestines and poor food absorption.

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Persistent diarrhea, vomiting, or both can lead to a loss of vital nutrients.

#### 5. Alcoholism

Addiction to alcohol can lead to gastritis or damage to the pancreas. These can make it hard to digest food, absorb certain vitamins, and produce hormones that regulate metabolism.

Alcohol contains calories, so the person may not feel hungry. They may not eat enough proper food to supply the body with essential nutrients.

#### 6. Lack of breastfeeding

Not breastfeeding, especially in the developing world, can lead to malnutrition in infants and children.

#### Treatment

The type of treatment will depend on the severity of the malnutrition, and the presence of any underlying conditions or complications.

The healthcare provider will prepare a targeted care plan, with specific aims for treatment. There will normally be a feeding program with a specially planned

diet, and possibly some additional nutritional supplements [15].

People with severe malnourishment or absorption problems may need artificial nutritional support, either through a tube or intravenously.

The patient will be closely monitored for progress, and their treatment will be regularly reviewed to ensure their nutritional needs are being met.

In addition, interventions that encourage healthy food choices and physical activity for children and adults at risk of overnutrition may help prevent overweight and obesity (4).

You can also help prevent malnutrition by eating a diet with a variety of foods that include enough carbs, proteins, fats, vitamins, minerals and water. Another possible long term solution would be to increase access to health facilities to rural parts of the world. These facilities could monitor undernourished children, act as supplemental food distribution centers, and provide education on dietary needs [16].

#### CONCLUSION

Nutrition is a basic human need and a prerequisite to a healthy life. A balanced diet is required for the proper growth and development and to remain active throughout the life. Foods not only provide nutrients but also are rich sources of phytochemicals that are required for healthy life. Thus it is through adequate nutrition the human system utilizes the food which is further used for providing energy for growth, development and maintenance of other needs. Good nutritional status contributes

to good health. Thus, to sustain life in a healthy manner we require good nutrition. Nutrition is both a preventive and therapeutic science as people's nutritional state can protect them from diseases or predispose them towards chronic disease.

The poor, hungry and malnourished are unable to live a normal life, are less to fulfill their potential as human beings and cannot contribute fully to the development of their own countries.

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