



Let us get used to correct food habits to lead a healthy life



Food is a basic need of human beings. It gives nutrients to the body. We have got basic knowledge about food and the nutrients it contains in the primary classes.

We cannot live without food. Food is essential to us in order to satisfy our hunger and get the necessary strength and nutrition for our body. We can lead a healthy life by taking healthy meals which contain proper nutrients. A healthy meal means hygienically prepared meal that contains the necessary nutrients in the correct proportions as required by the body. A healthy meal will provide nutrients for three functions of the body. They are: supplying energy, helping the growth of the body and give protection from diseases.

This lesson teaches us the need of a healthy meal and points to consider when taking healthy food and also develop our knowledge regarding nutritional problems.



Why do we need food?

1. To get energy

The energy necessary for the body is mainly obtained from carbohydrates and fats in our food.

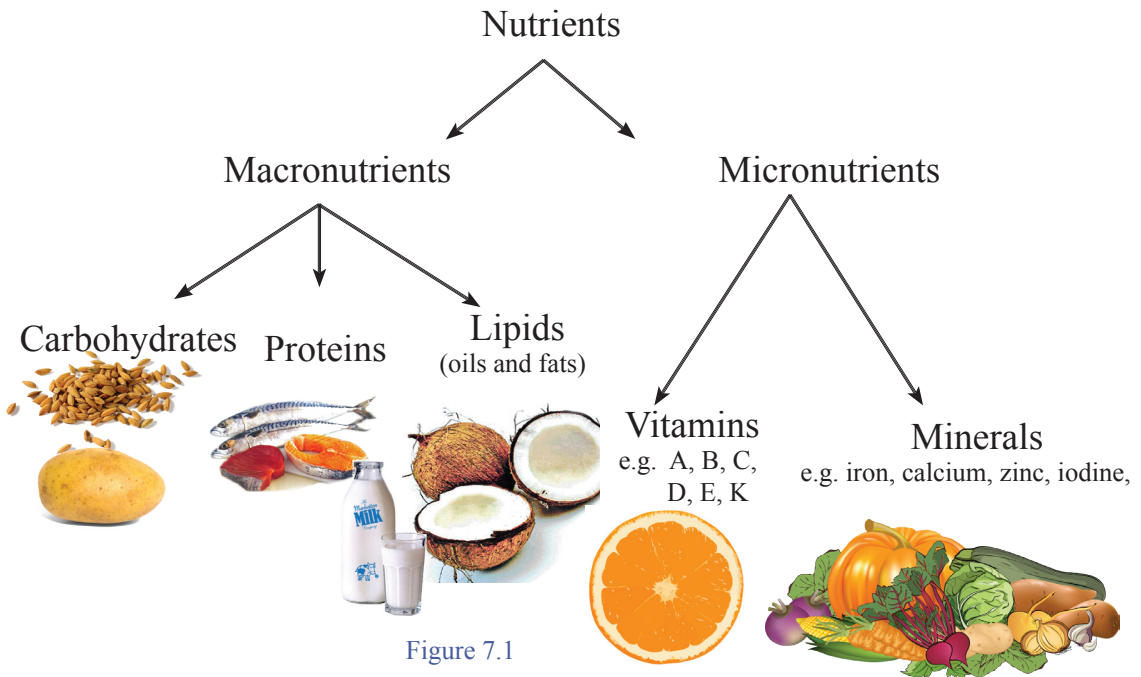
2. For the growth of the body

Protein in the food helps the body to grow. Apart from this vitamins and minerals are also important for the growth of the body.

3. To be safeguarded from diseases

Vitamins and minerals mainly help us to safeguard ourselves from diseases.

The nutrients necessary for these activities are present in food.



To receive the proper nutrition we should add different types of food to our meals. Food can be categorized under six groups.

1. Grains (cereals) and tubers (yams)
2. Vegetables
3. Fruits
4. Meat, fish, eggs and pulses
5. Milk and milk products
6. Oils and sweets

Different categories of food, their main nutrients and their functions are shown below.

Table 7.1

Food Group	Main nutrients	Function
Rice, bread, yams and grains	Carbohydrates	Gives energy to the body.
Vegetables	Vitamins, minerals, carbohydrates	Safeguards the body from diseases. Gives energy.
Fruits	Vitamins, minerals	Safeguards the body from diseases.
Meat, fish, eggs pulses and cereals	Protein, vitamins, minerals	Necessary for the Growth of the body. Safeguards the body from diseases.
Milk and dairy products	Protein, vitamins, minerals and lipids	Necessary for the Growth of the body. Safeguards the body from diseases.
Oils and sweets	Fats, carbohydrates	Gives energy.



Points to consider when choosing healthy food

- Nutritional value
- Variety
- Sufficient quantity
- Natural condition
- Freshness
- Cleanliness
- Food hygiene



Figure 7.2

1. Nutritional value

Nutritional value of food depends on the quality and the quantity of nutrients present in the food and this could increase or decrease depending on many factors.

2. Variety

Adding different types of food to our meals or the same food prepared in different ways can provide variety and could make nutrients easily available for the body.

E.g.

- adding food of different colours and flavours,
- taking five portions of fruits and vegetables of different colours daily,
- preparing food in different ways (frying fish, ambul thiyal, cooking by adding milk, etc).



Figure 7.3

Let us put it into practice

Line up different coloured fruits and vegetables. Find out methods of including these in your diet with their natural colours.

3. Sufficient quantity

The quantity of food intake differs from person to person depending on their Body Mass Index (BMI), age, sex, activeness and health condition. Nutritional problems can arise by not taking suitable food. A thin and short person should take more protein and energy giving foods. An obese person should take less carbohydrate and fatty foods. Three major meals and two minor meals are sufficient for a day's intake of nutrients by a person. Five portions of vegetables or fruits are sufficient to supply a day's necessary micro nutrients.

The food taken from each food group should be proportionate to each other. A simple method to follow in your day to day life is to serve proportionately, by dividing your meal as follows in the food plate.

The meal should comprise of starchy food (yams, grains) about half of the plate (4/8), food with proteins (meat, fish, eggs) 1/8 of the plate, vegetables and fruits 3/8 of the plate. In addition you should take two portions of milk or dairy products per day (1 portion = 150 ml fresh/ powder milk = 1 tub of yogurt/curd = piece of cheese). A little amount of oil and sugar should be added.



Figure 7.4 - Food plate.

4. Natural condition

Natural food means food with minimal addition or no addition of preservatives, colouring or chemicals. Natural food is high in nutritional value. In addition to natural vitamins they also contain dietary fibre as well. Processed foods are not favourable to the health, e.g. sausages, french fries, artificial drinks.



There are different types of artificial drinks in the market. Drinking them is not healthy. Water is the most suitable natural drink. Water is a medium necessary for most of the body's activities. During the period of growth it is very important that children drink about 1.5 - 2 litres of water per day.

5. Freshness

Fresh fruits and vegetables contain more vitamins and minerals. As time passes the colour, taste, and smell of the food changes and with that the desire to eat them also declines.

Nutrients like vitamins can be destroyed when food gets stale. Therefore as time passes the nutritional value in food also decreases.

6. Cleanliness

It is very important to safeguard the cleanliness of food when manufacturing, storing, transporting, cooking and consuming. Adding of agrochemicals and chemical fertilizers should be minimised when growing plants for food. It is very important to safeguard food from insects such as cockroaches and rats during storage. This is because these animals can spread germs that can cause disease. In transportation food should be packed and safeguarded without germs entering and food getting spoilt. It is essential to wash both hands with soap and water before preparing or consuming meals. Fruits and vegetables should be washed well, before consumption.

7. Food hygiene

Food hygiene means the use of proper methods when choosing, preparing and serving food in order to avoid sicknesses. This is important for making sure that food is suitable for consumption. Table 7.2 explains how ‘hygienic food’ can be chosen.



Our contribution towards choosing healthy food

We should consume food in order to receive all the nutrients. Concepts discussed under choosing healthy food, such as variety, freshness, natural condition, cleanliness and food hygiene should be considered when choosing food. This is an important step in preparation of a healthy meal.



Figure 7.5

The most suitable food for our day-to-day consumption

We should consider the following when choosing food.

Table 7.2

Type of food	Things to be considered
Vegetables/ Fruits	Choose fresh vegetables or fruits which are readily available during a particular season.
Fish	Choose fresh fish with bright eyes and red or pink gills.
Meat	Choose bright red or pink coloured meat.
Grains	Avoid taking discoloured, shapeless, damaged, insect infected grains.

Type of food	Things to be considered
Packeted and canned food	Be alert about the necessary standard, manufacturing date, expiry date and ingredients. Bloated, dented or damaged tins must not be purchased.
Water bottles	Check for the certificate of the ministry of health. Check for SLS certification and expiry date. See if the lid of the bottle is well sealed.

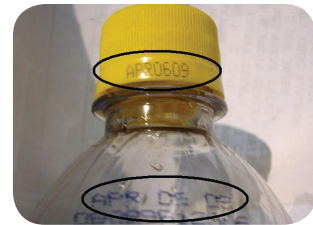


Figure 7.6

Let us Learn More

Food that can be used as a healthy snack

1. A fruit or a fresh fruit drink
2. Yoghurt or curd
3. Boiled gram or green gram
4. Boiled manioc or sweet potatoes with coconut
5. Sago porridge
6. "Helapa"
7. Gingelly balls, peanuts or cashew nuts
8. Corn



Figure 7.7

Let us put it into practice

According to races, areas and different functions food variety differs. Find out types of foods and how nutritional value is preserved in above mentioned varieties.



Methods used during ancient times to increase the quality of food

There are special foods existing from the ancient times. There are many healthy foods prepared through experiences in the past.

1) The use of mixed food to enhance nutritional value.

E.g. types of food like hath maluwa, green gram milk rice, mixed green leaf mallum, pongal, sambar, buriyani, etc.



Figure 7.8

2) We can mix some substances to the food to increase absorption of nutrients.

E.g. adding lime juice to green leaf mallum.

3) Using natural fertilizers when cultivating crops.

E.g. animal excreta, dry leaves.

4) Using natural methods of pest repellents instead of chemical insecticides.

E.g. the juice obtained from margosa seeds mixed with water can be used as an insecticide

growing marigolds – the smell of this flower repels insects.

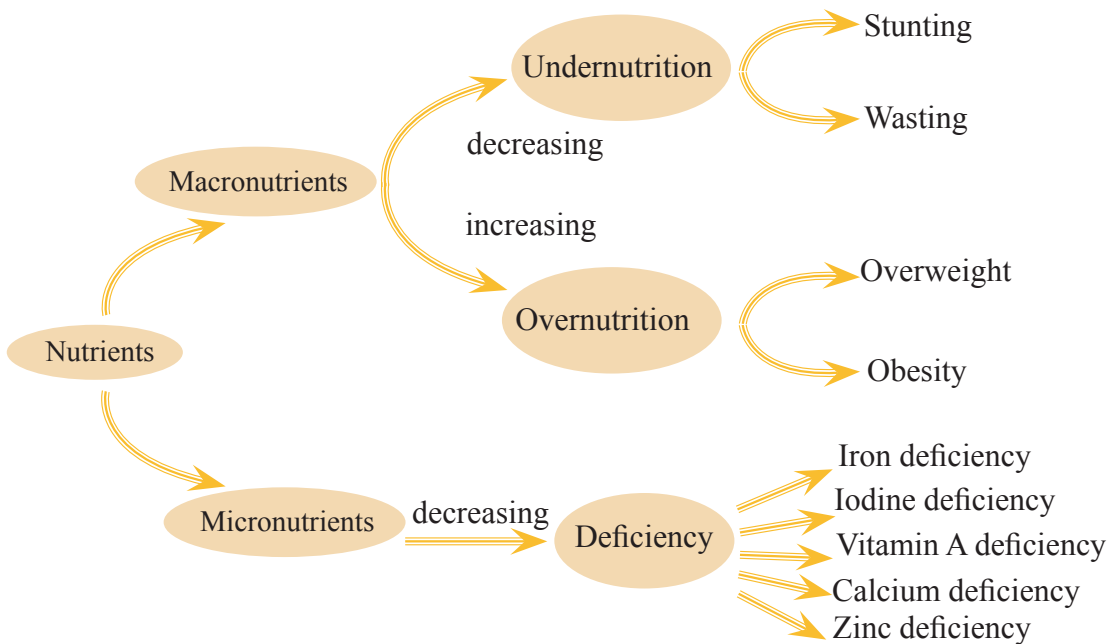
The cleanliness, nutritional value, freshness and variety of food in the ancient days were often better than the present days.



Problems in nutrition

Nutritional problems occur when the necessary nutrients are received either in reduced amounts or increased amounts than the body requires. This is known as malnutrition.

Diagramme 7.1



Malnutrition conditions such as stunting, wasting or underweight can occur, due to lack of macro nutrients such as carbohydrates, fats and proteins necessary for the body.

- Not having the suitable height for the age is called **Stunting**.
- Not having the suitable weight for the height is called **Wasting** (Wasting can be determined by the use of Body Mass Index - BMI).

In the first lesson we learnt to identify the nutritional status using BMI and height chart.

Problems faced due to undernutrition

Contacts communicable diseases easily:

- Slowing down of physical growth
- Impaired concentration
- Changes in personality
- Impairment of education
- Reduction of participation in sports activities.

Problems faced due to overnutrition

If more macro nutrients such as carbohydrates and fats are taken than the body requires over nutritional conditions can occur.

This can take two forms;

- When the weight is higher than required for the height, the result is overweight
- Excessive weight increase than appropriate for the height is called obesity.



Figure 7.9 - Wasting.



Figure 7.10 - Overweight / obese.

Let us Learn More

- Obese individuals are more prone to develop non-communicable diseases such as diabetes, high blood pressure, heart diseases and strokes.
- To prevent being overweight and obese one should engage in exercises, avoid food with flour, oily and sugar containing foods.

Micronutrient deficiency states and steps that can be taken to prevent them

Table7.3

Deficiency	Bad influence	Methods to avoid
Iron deficiency	Aneamia (Reduced heamoglobin in blood)	Taking foods rich in iron such as meat, fish, dry fish, green leaves (dark green in colour). ★ Should add vitamin C rich food like lime to absorb iron to the body.
Iodine deficiency	Reduction in growth, weakness in memory and education, Develops goitres.	Use of iodine added salt. ★ When storing iodised salt. it should be stored in a dark vessel in a cool place. ★ Iodised salt should be added after food is cooked.

Deficiency	Bad influence	Methods to avoid
Vitamin A deficiency	Development of dry skin, unable to withstand sicknesses, night blindness(reduction of vision at night)	Taking foods rich in vitamin A such as yellow/orange and dark green coloured vegetables or fruits (carrots, pumpkins, mango, papaw and green leaves), eggs, milk, cheese, meat, fish.
Calcium deficiency	The weakness of the bones and teeth	Taking foods rich in calcium such as sprats, small fish, eggs, milk and milk products.
Zinc deficiency	Reduction in growth, unable to withstand sicknesses	Taking foods rich in zinc such as beans, peanuts, red meat and seafood.

Let us put it into practice

Find and diagrammatically present different methods that can be used to purify water before drinking.

Now we know....

Food is one of our basic needs. Obtaining energy for the body, growth of the body and protection from diseases are functions of a healthy meal. While food can be categorized under six main groups, their nutrient composition differs from each other. A healthy meal consists of all of them in correct amounts, will provide the body with all the required nutrients. The required amounts can differ from person to person. Food provides five nutrients and they are carbohydrates, proteins, fats, lipids, vitamins and minerals. The best drink to quench thirst is water. There are certain points one should bear in mind when preparing a meal according to the concept of healthy food. Nutritional problems can occur when the nutrients in consumed food are either less or more than required.

Let us test our knowledge

1. What are the six main categories into which food can be divided?
2. Name five nutrients we get from food?
3. Name three main functions of food.
4. What are the factors that will decide the intake of food of a person?
5. What is the illness that occurs when macro nutrients are taken in excess?
6. What are the symptoms of iron deficiency?
7. What food will prevent blindness caused by vitamin A deficiency?