

FOOD FOR A HEALTHY LIFE

For the maintenance of sound health you should have a good knowledge of food you take. You should know the nutritional requirements of the body, nutritional values of different foods and the concept of a healthy (balanced) diet.

Food components which provide nourishment to the body are called nutrients. The nutritional value of a food depends on the nutrients contained in the food.

There are five types of nutrients that a meal should contain. They are

- **carbohydrates**
- **proteins**
- **fats and oils (lipids)**
- **vitamins**
- **mineral salts**

Besides these nutrients, water is essential for various body functions. The human body contains 65-70 percent of water. You should drink an adequate amount of safe water daily. A certain amount of roughage (fibre) usually found in food is also needed for regular elimination of waste, as well as to reduce various other diseases.

The above nutrients are supplied from different kinds of food. The percentage of nutrients vary in each food.

Functions of Nutrients

There are three main functions of nutrients in a human body.

1. Supply energy for different functions.
2. Build body tissues.
3. Protect and regulate body functions.
(provide protection against infections, regulate the metabolic activities)

According to the functions, there are three main categories of food.

1. Energy giving food
2. Body building food
3. Protective food

(1) Energy giving foods

Fig 8.1



We need energy for our daily activities. We get energy from the food we take. The food gets digested in the alimentary canal and the nutrients are absorbed.

Carbohydrates and fats are the nutrients that give energy to our body. Most of the energy used by the body is provided by carbohydrates. Cereals, (rice, wheat,.....etc.) yams, jak and bread fruit are some examples for food that contains carbohydrates. Sugar, glucose, jaggery and honey are also carbohydrates.

Fat and oil also provide energy to our body. Fat and oil give more than double the energy value that carbohydrates give. Fats also provide the body with fat-soluble vitamins and help in their absorption.

Excess of carbohydrates is stored mainly in the form of fat in our body.

The energy giving foods give energy and help in maintaining the body temperature.

(2) **Body repairing foods**

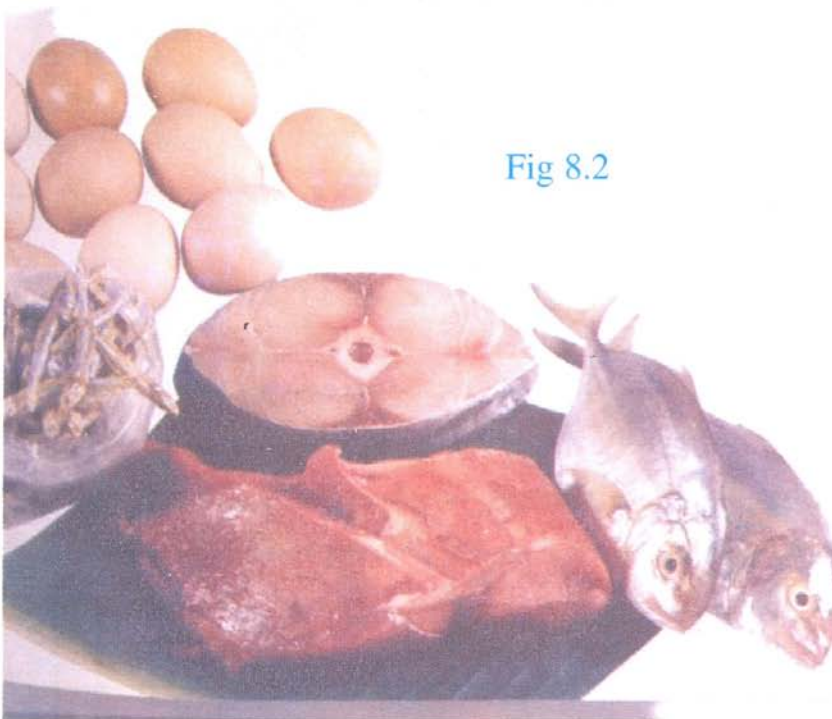


Fig 8.2

Protein is the nutrient that helps the growth of the body. Therefore items of food which are rich in protein are called body building food.

This kind of food help

- I. the growth of cells and tissues.
- II. to replace cells which die (eg., red blood cells and the cells of the epidermis.)
- III. to repair wounds and other damages of the body structure.
- IV. the production of hormones and other secretions.

Some examples for body building food are meat, fish, pulses, milk and milk products.

(3) Protective foods

Protective food gives immunity against infections, increase the absorption of nutrients and regulate the biological functions of the body.



Fig 8.3

The nutrients that are needed for these activities are vitamins and minerals.

Some sources of these nutrients are fruits and fruit vegetables, leafy vegetables and root vegetables.

Activity 8.1

Complete the grid with food you find in your area.

Energy giving food	Body repairing food	Protective food

Nutrients, their sources and functions

Nutrient	Functions	Food sources
Carbohydrates	<ul style="list-style-type: none"> - provide energy - maintain the body temperature. 	<p><u>Cereals</u> Rice, wheat, bread, kurakkan, meneri, maize, soghum</p> <p><u>Starchy fruits</u> Jack, bread fruit</p> <p><u>Sugars</u> white and brown sugar, jaggery, honey, treacle</p>
Fats and oils	<ul style="list-style-type: none"> - provide energy. - help the absorption of fat-soluble vitamins. - regulate body temperature. 	<p><u>Fats</u> coconut oil, palm oil, gingelly oil, soya oil, olive oil, sun flower oil etc., butter, ghee</p> <p><u>Nuts and oil seeds</u> coconuts, ground nuts, cashew nuts, cotton, gingelly</p>
Proteins	<ul style="list-style-type: none"> - repair body tissues - produce various secretions. eg; hormones enzymes 	<p><u>Meat</u> chicken, beef, pork, liver</p> <p><u>Fish</u> sea fish, fresh water fish, dried fish</p> <p><u>Pulses</u> green gram, soya bean, cowpea, ulundu, gram, lentils</p> <p><u>Milk or milk products</u> Milk, cheese, fermented milk, yoghurt</p>

Nutrient	Functions	Food sources
<u>Vitamins</u> Vitamin A	<ul style="list-style-type: none"> - keep the skin healthy. - maintain good eye sight. - prevent night blindness. 	fish liver oil, margarine, fruits like mango and papaw, gotukola, thampala, spinach milk, eggs, animal liver yellow vegetables (eg; pumkin, carrot, tomato)
Vitamin B Complex B ₁ - Thiamine B ₂ - Riboflavin B ₃ - Niacin Folic Acid B 12	<ul style="list-style-type: none"> - helps in the digestion. - builds appetite. - prevents the soreness of mouth, and tongue, prevents cracks in skin & lips. - prevents anaemia 	milk, eggs, pulses. leafy vegetables, curd, thampala, curry leaves ground nuts
Vitamin C	<ul style="list-style-type: none"> - increase absorption of iron. - strengthen the walls of blood vessels. 	fresh fruits and vegerables, leafy vegetables, nelli, guava, lime, orange, cashew
Vitamin D	<ul style="list-style-type: none"> - increase the absorption of calcium - keep the bones strong. 	fish (eg., shark, kelavalla,) (synthesized in the presence of sunlight)
Vitamin K	<ul style="list-style-type: none"> - help in the clotting of blood. - act as an anti-oxident(also formed in the intestine) 	green vegetables, tomatoes,
Vitamin E	<ul style="list-style-type: none"> - prevent the catabolsim of polysaturated fats 	nuts, egg yolk, whole cereal, milk, butter, germinated seeds

Nutrient	Functions	Food sources
<u>Minerals</u> Iron	<ul style="list-style-type: none"> - form haemoglobin. - prevent anaemia. 	thampala, gotukola mukunuwenna, kankun dark green leafy vegetables (eg., carrot) leaves, beet leaves) small fish (eg., Hurulla, salaya, sprats) germinated green gram, cowpea, animal liver.
Iodine	<ul style="list-style-type: none"> - produce thyroxine and prevent goitre 	leafy vegetables Iodised salt, sea fish
Calcium	<ul style="list-style-type: none"> - help the growth of bones. - prevent tooth decay. - help in the clotting of blood. 	pulses, kathuru murunga thampala, lotus roots, meat, small fish, milk sprats.
Zinc	<ul style="list-style-type: none"> - increase natural immunization. 	cereals, pulses.

Vitamins and minerals needed in small amounts, are essential for health and well-being.

Healthy (balanced) Diet

A healthy (balanced) diet is a nutritionally adequate diet. All nutrients should be included in a healthy diet in order to meet the nutritional needs of the body and to prevent nutritional deficiency diseases.

You can use the food square to select a nutritious meal.

Food Square

Staple food	Protein supplement
rice maize kurakkan wheat yams jak jak seeds bread fruit bread	green gram (mung) cowpea soya fresh fish dried fish eggs meat milk curd, dried sprat
Vitamins & minerals supplement	energy supplement
pumpkin tomato carrot dark green leafy vegetables & vegetables ladies fingers beans bananas papaw	coconut coconut oil soya oil cashew nuts ground nuts butter gingelly oil sugar

Staple food is the food which is included in the meal in plenty. Our staple food is rice. Staple food gives more nutrients. But it contains some nutrients in less amounts. So we have to add supplements to our meal. We can get help from the food square to select a balanced diet. Other three supplementaries provide the nutrients to complete the meal.

Food Pyramid

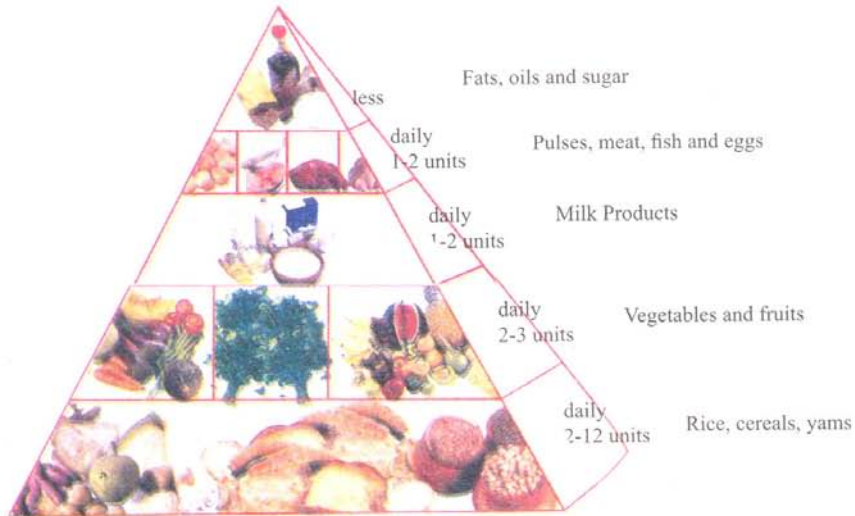


Fig 8.4 - Food Pyramid

1 Unit = 50g

Food pyramid helps you to decide the correct amount of each food that should be included in our diet.

There are several levels in the food pyramid. The size of these levels get smaller from the bottom to the top gradually. The size of these levels gives you an idea of the amount of food in each level that should be included in your meal.

For a healthy meal you should include all groups of nutrients shown in the food pyramid.

Preparation of a healthy meal

Nutrients can be easily destroyed in the preparation of food. Listed below are some such instances.

- washing vegetables after cutting
- keeping vegetables in cold water
- using too much water for cooking
- throwing excess water after cooking
- cooking for a longer period
- keeping the cooked food too long before serving
- keeping vegetables in a warm place

You should avoid the above instances when preparing a healthy meal. Consumption of properly washed, raw and fresh vegetables is always beneficial.

Mentioned below are some hints for you to prepare a healthy meal.

- take food items from the area you live
- prepare a mixed dish with a variety of food items [our traditional foods like mixed vegetable curry (hath maluwa), mixed green leaves (mixed mallum) milk rice with green gram (mung kiribath), mung kavum, sambaretc. are of high nutritional value]
- include leafy vegetables in every meal.
- avoid too much of cooking.
- consuming fresh and raw vegetables and fruits as much as possible
- include a dessert after meals
- grow vegetables and fruits in your home garden for your consumption

Cultural values of food

It is mentioned that Sri Lanka had a rich food culture. Our ancestors had a good knowledge of the nutritional values of food.

The staple food of ancient Sri Lankans was rice. Kurakkan and meneri were also used instead of rice. They consumed them with various curries made of fish, meat and vegetables. Undu, gingelly and green gram (mung) were very popular in the past.

They took milk products like curd and ghee, sweet meats and fruits after the main meals. Eating betel after a meal was essential for them. They reared animals for milk. Ghee, butter, curd and deekiri were popular food items.

Sri Lankans used to prepare sweet meats with rice flour from very early times. Fruit juices and king coconut were very popular drinks. There were various traditional methods of cooking. They used to prepare mixed foods. Rice porridge, herbal porridge and milk rice were very special. Even today we prepare milk rice for all our traditional and special occasions.

Sri Lankans had special food preservation methods of their own.

Activity 8.2

1. Find the food preservation methods the ancient Sri Lankans used.
2. What are our traditional foods?
3. Select a food item you can find in plenty in your area
 - I. What are the various methods of preparing that food?
 - II. With the help of your elders find out the various methods of preserving food.

The habit of taking meals together with all your family members is very important. It will help to keep good relationships and mutual understanding among your family members.

Home gardening is a reliable way to get safe food. You can get chemicals and insecticide free fresh food from your home garden. Find information about home gardening and implement them with your family members. It saves your money; saves you from unnecessary chemicals; keeps your family members healthy.