

Let us preserve the nutritional value of food

Food is a basic human need. It has a great impact on a healthy lifestyle. If nutrients in the form of food are not taken in adequate amounts or taken in excess it could lead to malnutrition. Therefore it is important for everyone to have a balanced diet.

You have learnt about nutrients, nutrition deficiencies, the food pyramid and the importance of having healthy food in previous grades.

In this lesson you will learn about the nutritional needs of the family, the barriers to proper nutrition, how to choose food, consumption and storage of food.

Nutritional needs of the family

Every member of the family needs a balanced diet. A balanced meal is one where the carbohydrates, proteins, lipids, vitamins and minerals are present in the necessary quantities as needed by an individual.

The main functions of different food types are;

- * Providing energy - food rich in carbohydrates and lipids
- * Growth - food rich in protein
- * Immunity - food rich in vitamins and minerals

The need for each amount of nutrients depends on the age.

Creating a menu

When family meals are prepared each individual's needs must be met. Some points to be considered when creating a menu are as follows,

1. Age
2. Status of health
3. Gender
4. Level of physical activity
eg: sportsman / hard workers
5. Situations with special needs and developmental stages
eg: pregnancy
breastfeeding
illness
6. Preferences
7. Amount of food needed

Activity

What are the differences of the nutritional needs among the family members?

You must prepare meals that fulfill these needs for breakfast, lunch, dinner and two snacks to be taken in between main meals.



Figure 14.1 - Breakfast food



Figure 14.2 - Foods for lunch



Figure 14.3 - Foods for dinner

Presentation of food

Offering the food prepared for consumption is known as presentation. The presentation of the food prepared is very important.

The place in which the food is presented should be clean and hygienic and free from pests such as flies.

Points to remember when presenting food

1. Appearance

Appearance is important in creating the appetite. You must try to maintain the natural colours and freshness when you prepare food. The appearance of a food may change if it is over cooked.

2. Appealing nature of food

Food can be made to look more appealing by having color, smell and taste, the nature of the vessels of presentation and the nature of presentation. This can be done by including various colors, using different cooking methods, maximizing the taste and smell and by presenting it in an appetizing way.



Figure 14.4 - Presenting in different colours

3. The manner in which the food is presented

By presenting the food prepared in individual bowls in an orderly manner becomes more appealing. By eating together the family becomes more united and understanding of each other.

The order of presentation differs according to the nature of the food and the situation.

eg:

- Drinks are placed on trays for presentation



Figure 14.5 - Placed on trays

- The main meal is placed on the table -The table is laid differently according to the occasion



Figure 14.6 - Placed on the table

- Presenting food to an ailing person - Food should be presented in a manner that can be consumed easily by such a person and in a way it improves the appetite.



Figure 14.7- Presenting food to an ailing person

4. The hygienic nature of the food

Food prepared at home can be trusted to be clean. Some measures to ensure hygiene are;

- Covering food to protect it from pests
- Keeping serving dishes, cutlery clean
- Using appropriate vessels for food
eg: do not use metal vessels for acidic foods.

5. Personal hygiene

Wash hands before cooking and wear clean clothes.

6. Sufficient quantity of food

The amount of food prepared must be enough to fulfill the needs of the family. Excess food must not be prepared as this leads to having to preserve the food which reduces the nutritional value and could cause diseases.

7. Table manners

The table must be set using the needed cutlery, plates, glasses etc. This could be according to either the Eastern or Western traditions. Table manners must be observed.



Figure 14.8 - Table manners

Activity

Describe the table manners you have learnt in the subject Practical Technical Skills.

How to preserve the nutritional value of foods

★ **Each family fulfills its nutritional needs using methods depending on its financial situation. To obtain the same nutrient there are expensive as well as inexpensive food. There are foods that can be obtained free of charge.**

eg:

- large fish is more expensive than small fish but small fish has high amounts of calcium in the bones along with the proteins therefore making them more nutritious.
- Imported fruits like apples and oranges are expensive, they also have preservatives added to them, and meanwhile local fruits such as guava, pomegranate and avocado are inexpensive and can be obtained from the home garden. These are more nutritious.
- It is less expensive to grow green leaves in the home garden than to buy them, these will also be free of chemicals and more fresh.
- Use fresh milk instead of the more expensive milk powder.

★ **The method in which the food is prepared also helps the nutritional state.**

eg:

- Cooking many types of food together – hathmaluwa, uppuma, spinach and jak seeds, dhal and ‘sarana’, milk rice with green gram, vegetable salad
- Cooking many types of leaves together – a mixed mallung
- Adding lime, maldivic fish and coconut to green leaves

- Cooking vegetables ensuring the colour does not change
- Eating food raw whenever possible – carrots, ‘gotukola’

★ **Vegans must fulfill their nutritional needs through other ways**

eg:

- pulses mixed with grains
- nuts, seeds, mushrooms, tofu

★ **Preserving excess food for a time of need, taking care to preserve the nutritional value.**

eg:

- Jaadi
- Atu kos
- Jak seeds kept under the sand
- Pickled limes

★ **Maintaining a home garden. Through this, you can get fresh, clean, natural products as well as economic benefits.**

eg:

- grow vegetables in pots
- grow fruits
- grow leaves like ‘gotukola’

Instances where the nutritional value of food is damaged

The nutritional value of food can diminish from the production to the consumption. To minimize this it is important to identify these situations.

1. Damages during food production

This can occur both in the farm as well as in the factory.

Damage caused in the farm

- Using agro-chemicals excessively or close to harvesting
- Damage caused by pests such as insects, birds, bandicoots, worms and squirrels.

Damage caused in the factory

- Using unauthorized flavoring, coloring and preservatives
- Using unclean raw materials
- Lack of personal hygiene among workers

2. Damages during transportation

- Being squashed and scraped during packing and unpacking due to not being methodical
- Food being spoilt due to being stored in dark, damp places.
- Spoilage due to being stored at an incorrect temperature
eg: yoghurt, curd, fish, meat
- Germs and dirt getting into the food due to poor packing



Figure 14.9 - Food transportation

3. Damages during storage

- Food spoilage due to storing carelessly without checking the expiry date.
- Attacks by pests such as mice, cockroaches and termites during storage
- Not storing at the correct temperature
eg: switching off refrigerators trying to save electricity.
- Not storing different foods separately
eg: storing meat, fish and ice-cream together,
storing medicines or chemicals with food



Figure 14.10- Food storage

4. Damages caused during preparation

- Using expired, spoilt foods
- Cutting and then washing leaves, potatoes and vegetables thereby removing the nutrients
- Overcooking
- Reusing the same oil for repeating frying
- Using inappropriate vessels for cooking and storing
eg: using aluminium vessels for chutney

- Using wrong methods of cooking
eg: manioc should be cooked in an open vessel without a lid
- Lack of personal hygiene among workers

Activity

Make a list of healthy habits to be followed when preparing food.

5. Damages that occur during consumption

- Using expired or spoiled food
- Using fast food and junk food
- Using food with chemicals added

Activity

Why should we avoid consuming fast food and junk food?

Factors to consider when selecting food

1. Date of manufacture, date of expiry, ingredients, following standards
2. The nature of the package
3. Taste, smell, colour and appearance
4. Freshness

Many food change colour and give off odors when they are spoiled. When food contains chemicals or when food is expired we may be able to identify this by tasting.

Colour also shows freshness, however this colour can also be obtained by artificial means, therefore you must be careful when choosing foods.

Look for changes in the shape and colour as well as bruising, piercing and discolourations.

If the packaging is torn, broken, squashed or inflated the food is not safe for consumption.

Determine how nutritious the food is by examining the date of expiry and manufacture, the ingredients and the standards reached (SLS, ISO).

Minimize the consumption of junk food and fast food as they are high in sugar and oil which provides energy but little of the other nutrients.

Activity

Fill the table using your experience of the unsuitable food in your home.

Type of food	Why it is unhealthy	Negative consequences faced

Preservation of food by protecting its nutritional value

When there is an excess of food it should be preserved, so it could be used when there is a scarcity of food. The food must be stored in such a way where the nutritional value is preserved.

Table 14.1

Preservation method	Food
1. Drying –Sunlight, in ovens, with fires	fish, vegetables, breadfruit jak , chillie, dry fish, bittergourd, manioc slices, lime(for pickles)
2 Adding sugar – adding warm sugar	fruits, jam, jaggery
3.Cooling – refrigerating	milk, fruits, vegetables, meat, fish, margarine, cheese, yoghurt, butter, cream
4. Salting – adding salt in powder or crystal form	lime pickle, mango, jaadi, ‘biling’, nelli
5.Canning – canning cooked or uncooked food	fish, fruits, milk, cooked vegetables, prepared meats, coconut, coconut milk
6. Dehydration – dehydrating using machines	powdered milk, powdered coconut milk
7. Adding chemicals	cordial, jam, chutney, sauce
8.Pasturerization and sterilization	fresh milk, sterilized milk
9.Burying under sand	lime, jak seeds, manioc
10.Smoking	meat, fish, jak, goraka
11.Adding vinegar	jak, pickles, brinjals fried, sauce
12.Cooking	‘malu ambulthiyal’, fried foods, brinjal’moju’
13.storing in bee’s honey	meat, fruits
14.Wrapping – wrapping in arecanut (kolapotha) or banana leaves	juggery, fruits

Traditional eating habits

Our ancestors prepared food using methods that preserved or increased the nutritional value of food. They also grew their own food.

Some methods they used to increase the nutritional value of their food are,

1. Adding drumstick (murunga), pandan (rampe) or spinach leaves when cooking rice, manioc or breadfruit.
2. Making ‘hathmaluwa’ for all festivals and instances where high nutrition is needed.
3. Using “thambum curries” to resolve ailments of the digestive system such as loss of appetite and stomach pain.
4. Mixing different types of leaves to increase the nutritional value, such as mixed leaves ‘mallung’ and drumstick leaf ‘mallung’
5. Using different types of vegetables to make soups and curries
6. Preparing ‘hathmaluwa’, ‘pongal’, ‘sambaru’ and ‘biriyani’
7. Using spices such as curryleaves, cumin, coriander, ginger, turmeric, pepper and goraka which are beneficial to the digestive system.
8. Using par boiled rice.
9. Preparing various types of porridges such as salt porridge, herbal porridge, rice porridge and consuming it with jaggery
10. Mixing kurakkan with other grains and creating ‘halape’, ‘thalape’, ‘aggala’ and porridge
11. Making ‘atu kos’, ‘weli kos’, and dried jak fruit.
12. Making lime pickles, pickles and ‘jaadi’

Activity

Make a booklet about the traditional methods of preparation of food by gathering information from your elders.

Nutritious snacks

Consume the following more instead of fast and junk food.

eg:

1. Fresh vegetable salad
2. Fresh fruit juice/ fruit salad
3. Curd/ yoghurt
4. Boiled green gram/ chickpeas/peanuts

Using pure water

Using pure water is essential for healthy life. Boil the water above 100°C for 20 minutes and cool to purify the water. If you are using "well water" get reports ensuring the water is suitable for consumption.

Summary

The factors that should be considered when creating menus for a family are, age, health status, gender, level of physical activity, preferences, amount of food needed.

Hygienic practices should be followed in the preparation and presentation of food. Factors impacting the presentation of food are the appearance, appealing nature of the food, the order of the presentation, the hygiene of the food, the personal hygiene of those preparing it, the sufficient quantity and good table manners.

Ways to protect the nutritional status of food are, selecting healthy foods, using correct techniques for preparation, obtaining nutrients from the home garden and proper methods of preservation.

Production, transportation, storage, preparation and consumption of food must be done correctly to maintain the nutritional value.

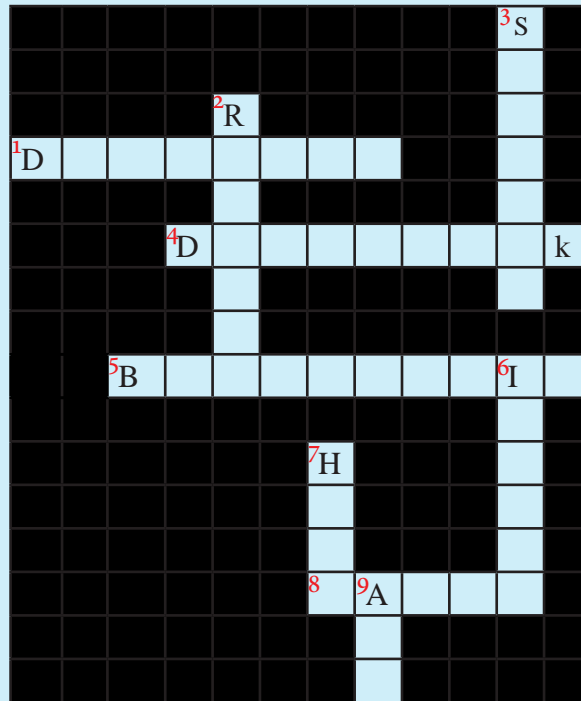
Observe the taste, colour, smell, appearance and freshness of the food, date of manufacture and expiry dates, ingredients and the nature of the package when selecting healthy foods.

There are many traditional methods of food preservation as well as modern methods.



Exersice

Fill in the crossword



Across

1. This disease is caused by the overconsumption of sugar.
4. The pods of this plant are curried and a mallung is made of the leaves in order to obtain vitamin C.
5. This is preserved by burying under sand.
8. An important factor in making food appealing to everyone.

Down

2. A more healthy type of rice.
3. A feeling of fullness is felt in this organ when food or water is consumed.
6. This mineral present in salt is important for the brain development of young children.
7. By using too much of this while cooking would make many nutrients destroy.
9. A factor which determines the amount of food consumed by an individual.

Answers

Across - 1. Diabetes
Down - 2. Red rice

4. Drumstick
3. Stomach

5. Breadfruit
6. Iodine

8. Taste
7. Heat

9. Age