

“शिक्षा मानव को बन्धनों से मुक्त करती है और आज के युग में तो यह लोकतंत्र की भावना का आधार भी है। जन्म तथा अन्य कारणों से उत्पन्न जाति एवं वर्तमान विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर उठाती है।”

— इन्दिरा गांधी



"Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances."

— Indira Gandhi

Block

4**PROCESS OF FOOD SELECTION AND
PREPARATION-II**

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© Indira Gandhi National Open University, 2001

ISBN: 81-7091-167-2

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Further information about the School of Continuing and Indira Gandhi National Open University courses may be obtained from the University's Office at Maidan Garhi, New Delhi-110 068.

Printed and published on behalf of the Indira Gandhi National Open University, New Delhi, by Director, School of Continuing Education, IGNOU, New Delhi.

Printed at Rakmo Press Pvt. Ltd., New Delhi-110020

BLOCK 4 PROCESS OF FOOD SELECTION AND PREPARATION-II

This Block has 5 units. It intends to provide the learner with a comprehensive knowledge of the nutritional components of foods, their selection and preparation. Our concern is to help you make the best choice from among these numerous foods so that quality is maintained in food practices.

In *Unit 17* the focus is on nutritive value, storage and selection of vegetables. The different methods of cooking and preparation of vegetable are also highlighted in this unit.

In *Unit 18* we deal with the nutritive value of various fruits, criteria for their selection, proper storage and the various products which can be processed from fruits.

In *Unit 19* the focus is on commonly used spices and condiments, their selection to prevent adulteration and their importance in our diet.

In *Unit 20* the different types of beverages, their constituents, their manner of preparation and their contributions to our diet are highlighted.

In *Unit 21* the focus is on convenience foods which help us to conserve time and energy and add variety to our meals.

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UNIT 17 SELECTION, PREPARATION AND NUTRITIVE VALUE OF VEGETABLES

A variety of vegetables, e.g., leafy vegetables like amaranth, spinach, methi, roots and tubers like carrots, potatoes, and other vegetables like beans, peas, bhindi, etc. are available. These vegetables are inexpensive sources of many nutrients, which are essential for protection against infection and diseases and for growth and maintenance of an individual. They provide variety and colour to meals. In this unit you are going to learn about the nutritive value of vegetables and their selection and storage. You will also study different methods of cooking vegetables and how to retain their colour, texture and nutritive value. We focus your attention on daily usage of vegetables in our diets.

Structure

- 17.0 Objectives
- 17.1 Introduction
- 17.2 Classification and Nutritive Value of Vegetables
- 17.3 Selection of Vegetables from the Market
- 17.4 Storage of Vegetables
- 17.5 Cooking of Vegetables
- 17.6 Preparation of Vegetables
- 17.7 Let Us Sum Up
- 17.8 Glossary
- 17.9 Answers to Check Your Progress Exercises

17.0 OBJECTIVES

After studying this unit, you will be able to:

- list the importance of vegetables in the diet;
- state the nutritive value of various vegetables;
- select good vegetables from the market;
- select appropriate methods of preparing, cooking and storage of various vegetables;
- describe the way of minimising the nutrient losses while cooking vegetables; and
- state the different forms in which vegetables are cooked.

17.1 INTRODUCTION

Spinach, cauliflower, carrot, potato, tomato, bhindi, french beans and other vegetables are all known to us. Are you aware of the fact that vegetables are important for us, that they improve our eye-sight, make our skin soft and protect us from many diseases? They are the most inexpensive protective foods one can buy. Yet our tendency is to neglect to use them daily in our diet.

**EAT PLENTY OF VEGETABLES. THEY
PROTECT US FROM MANY DISEASES**

Vegetables give variety to our diet. They make our meals more colourful, tasty and easily digestible. In spite of these benefits we consume very few vegetables. This is probably because we are not aware of the many benefits we can get from these vegetables.

The knowledge about vegetables is very important for our health. We should know which ones are best suited for us. We must also know how best to buy, store and cook them.

Check Your Progress Exercise 1

- 1) What is the importance of vegetables in our daily diet?
 - a)
 - b)
 - c)
 - d)

**17.2 CLASSIFICATION AND NUTRITIVE VALUE
OF VEGETABLES**

Let us now classify these vegetables and understand what nutrients we can get from various vegetables.

We can classify vegetables into three groups :

- i) Green leafy vegetables
- ii) Roots and Tubers
- iii) Other vegetables

i) Green Leafy Vegetables: Vegetables like amaranth, spinach, cabbage, methi, mustard, etc., are known as green leafy vegetables. You know that these are, the cheapest vegetables. But they are very useful for our body. These are rich in calcium, iron and vitamins. As you have already studied in Unit 4, calcium is good for the bones and teeth. Iron helps in blood formation. Vitamins protect us from many diseases like blindness, bleeding gums, skin rash.

**EAT GREEN LEAFY VEGETABLES FOR HEALTHY
EYES, SKIN AND PROPER GROWTH**

Check Your Progress Exercise 2

- 1) Name five green leafy vegetables:
 - a)
 - b)
 - c)
 - d)
 - e)
- 2) Green leafy vegetables are rich in:
 - a)
 - b)
 - c)

- 3) Green leafy vegetables are good for:
- a) b)
- c) d)

Practical Activity 1

Name the green leafy vegetables you ate during the last three days. It is possible that you may not have eaten any. If so, try to find the reasons for not eating green leafy vegetables frequently.

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ii) *Roots and Tubers*: Potato, yam, tapioca, sweet potato, carrot, radish, etc. belong to the roots and the tubers group. These are all very cheap vegetables. Most of the tubers are starchy or energy giving foods. Tubers like potatoes, sweet potatoes can replace a part of cereals in our diet as they are equally rich in carbohydrates. Roots and tubers actually belong to Basic Group-I foods. But they are discussed here under vegetables for the convenience of classification. Apart from carbohydrates, potatoes provide some vitamin C. Yam is a good source of calcium which helps in keeping bones and teeth healthy. Carrot is a good source of vitamin A which is good for the eyes.

EAT CARROTS TO PREVENT NIGHT BLINDNESS.

Check Your Progress Exercise 3

- 1) Name five root tuber vegetables.
- a) b) c)
- d) e)
- 2) Match the following food stuffs with appropriate nutrients:

<i>Food</i>	<i>Nutrients</i>
1) Carrot	a) Vitamin C
2) Yam	b) Vitamin A
3) Potato	c) Calcium

iii) *Other Vegetables*: Brinjals, peas, beans, different types of gourds, lady's finger, drumsticks, etc. belong to the other vegetable group. All these provide vitamins and minerals. Drumsticks for example are especially rich in calcium and vitamin C. Even the skins, seeds and fibres of these vegetables are important as they prevent constipation. These vegetables add variety to our diet.

**EAT VARIETY OF VEGETABLES. THEY ARE
NUTRITIOUS, ADD VARIETY AND FLAVOUR TO THE DIET**

In the interest of your health as well as for variety you should eat vegetables from all the three groups.

INCLUDE VEGETABLES FROM EACH OF THESE THREE GROUPS IN YOUR DAILY DIET.

17.3 SELECTION OF VEGETABLES FROM THE MARKET

Grow vegetables in your kitchen garden if you can. They will be fresh and more nutritious and cheap. While buying vegetables, select vegetables from the market carefully.

Try to buy fresh vegetables. Never buy wilted, shrivelled or decayed vegetables. They may be cheap but are poor in quality. Buy only as much as you need because vegetables perish easily.

**BUY SEASONAL VEGETABLES.
BUY FRESH VEGETABLES.
BUY ONLY WHAT IS NEEDED.**

Some Hints for Better Selection

1. Beans : Reject dry looking beans; choose those with small semi-developed seeds inside.
2. Cabbage : Choose those which are heavier compared to their size. Avoid heads with holes or discolouration. The greener the cabbage the better is the food value.
3. Cauliflower : Pick up the white and tight.
4. Cucumber : Select shining, medium sized, long and green ones.
5. Carrots, beets and turnips : Leave out very large carrots, beets and turnips. They are likely to be hard inside.
6. Onions : Buy onions with clean and dry skin. Reject soft and moist ones.
7. Potatoes : Reject potatoes with deep eyes, green skin or with cuts. Choose firm, well-shaped and clean potatoes.
8. Spinach, Mustard Methi, etc. : Buy dark green, fresh and crisp vegetables; avoid worm eaten vegetables.

Do you know?

- Green tomatoes are cheaper but as nutritious as red ones.
- White cabbage is less nutritious than green ones.
- Use of fresh seasonal vegetables is better than stored vegetables.

Check Your Progress Exercise 4

1) What points will you consider in selecting the following vegetables from the market:

- a) Spinach b) Potato c) Cauliflower d) Beans e) Cabbage

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17.4 STORAGE OF VEGETABLES

Let's see how well we can keep vegetables fresh. Store your vegetables carefully, to save their food value and protect them from spoilage. Remember the following tips for proper storage :

- 1) Sort out your vegetables. Use those with any sign of damage immediately. Don't store them with fresh ones.
- 2) Store dry vegetables like onion, potato, yam in a dry and ventilated place.
- 3) For vegetables like spinach, cauliflower, cabbage, etc., use moist bags, janata refrigerator or an ice box. If refrigerator facilities are available, vegetables can be stored for a longer period.



Figure 17.1: Janata Refrigerator

17.5 COOKING OF VEGETABLES

Cooking makes vegetables soft and easily digestible. It also improves flavour and taste. Green leafy vegetables contain certain acids which are released as you cook them. Cook these vegetables uncovered for the first few minutes to allow these acids to escape. Otherwise these acids will destroy the green colour.

You must know that cooking destroys some nutrients in vegetables. Cook your vegetables carefully to minimise these losses.

You can get the maximum out of vegetables by observing the following guidelines while cooking.

- Wash vegetables before cutting. Some vitamins and minerals are lost if vegetables are washed after cutting.
- Most of the nutrients are just beneath the skin of the vegetables. If possible, cook vegetables without peeling or peel them thinly. Peel potatoes after boiling.
- Cut vegetables just before cooking and serving. Cut them into medium size pieces.
- Avoid soaking of cut vegetables. Soaking destroys vitamins and minerals.
- Add vegetables to boiling water. Cook them in minimum water. Tender vegetables like spinach, cabbage need no additional water.
- Cook vegetables in a covered pan after initially keeping the pan open. This shortens cooking time. Vegetables cooked in this way look better and taste better and the nutrients are better retained.

- Pressure cooking or steaming is better for solid vegetables.
- Do not use baking soda as it destroys vitamins.
- Serve vegetables hot after cooking, avoid reheating them.
- Cooking destroys some vitamins and minerals of vegetables, so you must eat some vegetables raw as salads.

Check Your Progress Exercise 5

List some practical tips which you must follow while cooking vegetables.

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17.6 PREPARATION OF VEGETABLES

There are a variety of ways in which you can prepare vegetables. You can have a variety of vegetable preparations like stuffed vegetables, dry vegetables, vegetable curried and kofta curries and you can use vegetables as a stuffing in paranthas also.

You can cook some vegetables with dhals. This will make the dish more nutritious besides making its taste better, for example chana dhal with gourd-(ghia). Vegetables like brinjals, drumsticks, potatoes are cooked with arhar dhal while making sambhar. Besides this, you can cook vegetables in the following ways :

- 1) *Vegetables as Soups and Juices:* They make the meal appetising and tasty. You can make a variety of soups with vegetables like spinach, carrots, peas, tomatoes, beans, etc. Juices can be prepared from tomatoes, carrots, etc. They add taste to the meal. Soups and juices are especially good for infants and sick persons.
- 2) *Vegetables as Snacks:* Snacks like pakoras, cutlets, samosas, kachories can be prepared using vegetables.
- 3) *Vegetables as Desserts:* You can prepare kheers, halwas, sweets with vegetables.
- 4) *Vegetables as Salads:* Tomato, cucumber, radish, onion, capsicum, lettuce, cabbage, cauliflower can be used in different combinations to make salads. Lemon juice, salt, vinegar and curd can be used as dressing to improve the taste of salads.
- 5) *Vegetables as Pickles and Chutneys:* Some vegetables can be preserved. You know vegetables in season are cheap. You can preserve them by making pickles, chutneys, murrabas, etc.

Practical Activity 2

- 1) We can prepare kheer with cauliflower. List two more vegetables for making kheer.
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- 2) Pumpkin can be used for making halwas. Name two other vegetables for making halwa.
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- 3) Spinach and pumpkin can be used for making burfi. List two more vegetables that can be used for making burfi.
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- 4) List some vegetables that you use at home for making :
 - a) Pickles
 - b) Chutneys
 - c) Murrabas

17.7 LET US SUM UP

Vegetables are important to us as a source of essential nutrients like minerals and vitamins. These help to keep the body healthy. Vegetables contribute variety, colour, flavour and texture to the meal and thus make it attractive. Vegetables in season are cheap and can be included in a variety of preparations in our daily diet.

17.8 GLOSSARY

- Carrot Kheer** : A sweet preparation made by cooking grated carrots in milk till thick and creamy.
- Cutlets** : Boiled and mashed vegetables formed into various shapes, coated with bread crumbs and deep fried.
- Pakorras** : A fried preparation of vegetables coated with besan batter.

17.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) a) Vegetables provide variety.
b) Make our food colourful and tasty.
c) Protect us from many diseases.
d) Improve our eye-sight.

Check Your Progress Exercise 2

- 1) Spinach, methi, amaranth, cabbage, mustard.
- 2) a) Calcium b) Iron c) Vitamins
- 3) a) healthy skin b) improving eye-sight
c) blood formation d) strong bones and teeth

Check Your Progress Exercise 3

- 1) a) Potato, b) Yam, c) Sweet Potato, d) Tapioca, e) Radish
- 2) 1-B, 2 - C, 3 - A

Check Your Progress Exercise 4

- 1) a) Spinach : Should be darkgreen, fresh and crisp.
b) Potato : Should be clean, well shaped devoid of deep eyes, green skin and cuts.
c) Cauliflower : Head should be white and light.
d) Beans : Should be small with semi-developed seeds inside.
e) Cabbage : Should be green and devoid of holes.

Check Your Progress Exercise 5

- 1) Wash vegetables before cutting.
- 2) Cook vegetables with peel or peel them thinly.
- 3) Cut vegetables just before cooking.
- 4) Do not soak cut vegetables in water.
- 5) Cook vegetables in minimum water.
- 6) Cook vegetables in a covered pan. Pressure cooking or steaming is best.
- 7) Avoid the use of baking soda as it destroys the vitamins.

UNIT 18 SELECTION OF FRUITS AND THEIR NUTRITIVE VALUE

Fruits are enjoyed by all age groups. They are rich in vitamins and minerals and have a pleasant flavour. In this unit, you are going to learn about their nutritive value and how to purchase and store them.

Structure

- 18.0 Objectives
- 18.1 Introduction
- 18.2 Classification and Nutritive Value of Fruits
- 18.3 Selection of Some Common Fruits
- 18.4 Storage of Fruits
- 18.5 Cooking of Fruits
- 18.6 Place of Fruits in Our Daily Diet
- 18.7 Dried Fruits
- 18.8 Let Us Sum Up
- 18.9 Glossary
- 18.10 Answers to Check Your Progress Exercises

18.0 OBJECTIVES

After studying this unit, you will be able to:

- list the importance of fruits in our diet;
- state the nutritive value of various fruits;
- select good fruits from the market;
- store the fruits in proper manner;
- cook some selected fruits; and
- state the different forms in which the fruits can be consumed besides eating them raw.

18.1 INTRODUCTION

You might have eaten some delicious apples of Kashmir, liches of Dehradun, Langra and Dussehri mangoes of U.P. and oranges of Nagpur. Our country has in addition to the above a variety of fruits like apricots, grapes, pineapples, peaches, strawberries, plums, pears, guavas, papayas, banana, jack fruit and melons. Let us now see what fruits are. Fruits are the seed bearing parts of the plants consisting of edible tissue surrounding the seeds. The edible part is juicy, pulpy, fleshy, sweet or sweet-sour in taste. Most fruits have a ripened seed or seeds enclosed in them. Unlike vegetables most fruits can be eaten with minimum nutrient losses.

Fruits are a great gift of nature to mankind. They are delicious, nutritious, ready-to-eat foods. They have a nice flavour and texture. Fresh fruits have an attractive colour. Think, for example, about the colour of ripe yellow mangoes or rosy red apples.

Children may sometimes be averse to milk and other nutritious foods. But they relish fruits very much. People of all age groups enjoy fruits as an appetiser, snack or a dessert. Fruits are rich in vitamins and minerals. They protect us against many deficiency diseases. They provide roughage or fibre which prevents constipation.

EAT MORE FRUITS. THEY PROTECT US FROM DEFICIENCY DISEASES.

Vegetables and fruits are best at the peak of their season. Their flavour and nutrient content is high and prices are competitive.

Check Your Progress Exercise 1

- 1) There are different fruits in different seasons. List fruits of summer and winter season in your region.

Summer fruits	Winter fruits
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18.2 CLASSIFICATION AND NUTRITIVE VALUE OF FRUITS

Fruits are generally rich sources of vitamin C and vitamin A. They also give us energy as they have a lot of carbohydrates in them. Fruits have both edible and non-edible portions. Generally seeds and peels are non-edible parts. In some of the fruits, however, the outer covering is also eaten, e.g. apricots, peaches, pears, raspberry and apple, etc. The peels and seeds of fruits provide roughage which is essential for normal bowel movement. We can group fruits according to their nutritive value as follows :

Yellow fruits: Fruits like mangoes, apricots, gooseberries, papayas belong to this group. These fruits are rich in beta-carotene, a precursor of vitamin A. They protect the eyes against night blindness and other vitamin A deficiency conditions.

EAT MANGOES, APRICOTS, PEACHES, FOR VITAMIN A. THEY PROVIDE PROTECTION AGAINST NIGHT BLINDNESS.

Vitamin C rich fruits: This group includes citrus fruits like oranges, grapefruit, sweet lime and fruits like amlas, guavas, pineapples, strawberries, etc. They are rich in vitamin C. As you have studied in Unit 4, vitamin C provides resistance against infections, prevents bleeding of gums and helps in speedy recovery of wounds.

GUAVAS, AMLAS AND CITRUS FRUITS ARE RICH IN VITAMIN C. THEY GIVE PROTECTION AGAINST INFECTION.

Other Fruits: Fruits like apples, bananas, melons and grapes which are not mentioned above are included in this group. They provide good health by providing vitamins and minerals to the body. Some of them also add bulk to the diet as they have a lot of fibre. This helps to prevent constipation by maintaining normal movement of the gastrointestinal tract.

Fruits also have a small amount of B vitamins, i.e. thiamine, riboflavin and niacin.

Some fruits like raspberries, strawberries, dried apricots, prunes, dates and figs are good sources of iron. Oranges, grapefruits and figs have a fair amount of calcium. The protein and fat content of fruits is low. The main energy constituent is carbohydrate which is present mainly as sugars.

Fruits are commonly used for making jams, jellies, and marmalades. A good jam or jelly is firm and well set. Have you ever thought why this is so? This is due to a substance called pectin which is a carbohydrate present in fruits which helps in the formation of a gel.

On the whole fruits have protective nutrients such as vitamins and minerals. Their vitamin and mineral content depends upon the variety, climate, sunlight and stage of maturity.

Check Your Progress Exercise 2

- 1) List any four fruits rich in vitamin A:
 - a)
 - b)
 - c)
 - d)
- 2) List any four fruits rich in vitamin C:
 - a)
 - b)
 - c)
 - d)
- 3) How are vitamin C rich fruits good for health? Give any three reasons.
 - a)
 - b)
 - c)

A few useful tips on nutritional benefits and your choice of fruits:

- 1) A costly fruit is not always the best fruit nutritionally. For example, guavas are cheaper and have better food value than apples.
- 2) Amla is a very cheap but rich source of vitamin C which is not destroyed even during storage, cooking and preservation.

Do you know that the vitamin C content of one amla is equal to vitamin C in 6 kgs. of apples or grapes?

- 3) Papaya is a cheap vitamin A rich fruit. It is available throughout the year. It can be easily grown in the backyard. Still, it is not a popular fruit. There are certain wrong notions and beliefs about it. Some people think it causes heat and irritation, but in fact papaya is one of the richest sources of vitamin A which is important for the eyes. All persons including pregnant women and children can safely eat papaya.
- 4) Fruits like kharbuja, water-melons have low energy value. Therefore, they are suitable for the obese and diabetics.

**MELONS HAVE LESS CALORIES.
THEY ARE GOOD FOR THE OBESE PERSONS.**

- 5) Fruits like apples, pears and guavas are firm, cranchy and fibrous. They are beneficial for dental health. They give exercise to the teeth and help to keep them clean. Children should be encouraged to eat raw whole fruits.

**EAT APPLES, PEARS, GUAVAS —
THEY GIVE EXERCISE TO TEETH. THEY
KEEP THE TEETH CLEAN AND STRONG.**

- 6) Lemons in season are cheap. They provide fair amount of vitamin C. Lemons if taken with a full glass of cold water in the morning and before going to bed prevent constipation.

18.3 SELECTION OF SOME COMMON FRUITS

A few hints for the wise selection of fruits from the market :

Apples: Good quality apples are firm, crisp, deep coloured and heavy. Different varieties are available like Delicious of Kashmir, Golden of Shimla and Red of Kulu.

Bananas: Bananas are available throughout the year. Purchase slightly hard bananas free from bruises. They can ripen at room temperature. Fully ripe bananas get bruised easily as one carries them home from the market. They are best for eating when completely yellow in colour with dark flecks on the skin.

Grapes: They should be plump, properly coloured, and firmly attached to the stem.

- Varieties
- i) Green seedless, small.
 - ii) Green big with seeds.
 - iii) Black big with seeds.

Citrus fruits: These are fruits such as oranges, lemons, grapefruits; Select firm and ripe fruits which are thin skinned and heavy in relation to size. They should be free from bruises, blemishes and soft spits.

Melons: Selection of melons is more difficult than that of other fruits. Ripeness, heaviness in relation to size, colour, and flavour are the criteria for their selection.

Pineapples: Yellow colour, heaviness, a good shape and a fragrant aroma are tips for selection of pineapples. Leaves at the top pull out easily when the fruit is ripe.

18.4 STORAGE OF FRUITS

Fruits perish fast and require careful storage. In winter, fruits can be stored even at room temperature, but in summer careful storage is required. The following are the tips for storage:

- 1) Sort out fruits to discard any spoiled ones. Over-ripe fruits should be consumed immediately.
- 2) Wash fruits before storage.
- 3) Store fruits in a cool place.
- 4) Most fruits keep better when refrigerated except bananas, papayas, and pineapples. They undergo undersirable changes at refrigeration temperature. They are best stored at room temperature.
- 5) Use plastic bags for storage of fruits in a refrigerator. This prevents shrivelling and drying.

18.5 COOKING OF FRUITS

Cooking is sometimes desirable because some fruits are more palatable if cooked, e.g. green apples and pears. Cooking adds variety. For small children fruit stews are very good. Fruits are sometimes cooked in sugar syrup. On cooking, the fruit becomes soft. However, cooking reduces the flavour of fruit. It also reduces the vitamin content of fruits.

18.6 PLACE OF FRUITS IN OUR DAILY DIET

We know well that fruits are eaten raw. Fruits can be consumed in other forms also. Here are a few examples :

- 1) *Fruit juices and punches:* You can prepare fruit juices from fruits like oranges, pineapples, mausambi, etc. Adding a little lemon juice, sugar and seasoning will improve its taste. Fruit punch is a mixture of lemon or orange juice, other fruit juices, sugar syrup and tea water.
- 2) *Fruit salads:* Attractive and tasty fruit salads can be prepared from a mixture of fruits like apples, bananas, pineapples, pears, papayas and grapes. You must have observed that fruits like bananas, apples, pears become brown and unattractive on cutting. Sprinkling of lemon, pineapple juice and sugar syrup prevents browning of cut fruits.

**SPRINKLE LEMON JUICE ON CUT
APPLES, BANANAS TO PREVENT BROWNING.**

- 3) *Dishes from unripe fruits :*
 - a) You can prepare vegetable dishes and koftas from unripe fruits like papayas and bananas.
 - b) Unripe mangoes can be used for making tasty mango panna which is preventive against sunstroke.
 - c) Chips and cutlets can be prepared from unripe fruits like bananas.
- 4) *Other items like desserts and beverages :*
 - a) We can use fresh, cooked or canned fruits in desserts. For example, fruit custard, fruit cream, ice cream, stews, pies, etc.
 - b) We can make nourishing milk based beverages e.g. mango milk shakes.
- 5) *Prepare some fruit preserves:*

Fruits in season are available in plenty and are cheap; like vegetables, fruits can also be preserved. A few examples of fruit preserves are:

- a) We can prepare jams, jellies, squashes, cordials, murabbas, etc. from fruits like apples, pineapples, guavas, mangoes, lemons, etc. They add variety, colour and taste to our food. Children are especially fond of jams, jellies, marmalades and squashes.
- b) A number of fruits can be canned like pineapples, mangoes, apples, cherries, pears, peaches. Canned fruit juices are also available.
- c) We can prepare pickles, chutneys out of fruits like unripe mangoes and limes.

PREPARE JAMS, JELLIES, MARMALADES, PICKLES, SQUASHES IN SEASON TO PRESERVE FRUITS.

Practical Activity 1

1) Peel and cut an apple into slices. Immediately treat some slices with lemon juice and leave the other slices as such. Observe the appearance of treated and untreated slices.

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Check Your Progress Exercises 3

- 1) We can prepare pickles from unripe mangoes. Name two other fruits for making pickles:
 - a)
 - b)
- 2) We can prepare nourishing mango shake. Name two other fruits that you can be used for making milk shakes at home:
 - a)
 - b)

18.7 DRIED FRUITS

Some fruits can be preserved by drying like grapes, apples, dates, pears, peaches. They provide variety. Besides the special taste and texture of the dried fruits, we increase the availability of fruits by drying them. Dried fruits have low water content. But, carbohydrate and mineral values are higher. The vitamin content of fruit changes depending upon the method of drying.

18.8 LET US SUM UP

Fruits are important for us as they are a good source of essential nutrients like vitamins and minerals. These are essential for our health and protect us against deficiency diseases. They also provide roughage which prevents constipation. Fruits are enjoyed by all age groups and especially children love them.

18.9 GLOSSARY

Browning : Some fruits like apples and bananas when cut and left exposed to the air turn brown due to the presence of enzymes in them.

18.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) Summer: 1) Mangoes 2) Lichies 3) Peaches
- Winter: 1) Oranges 2) Apples 3) Guavas

UNIT 19 SPICES, CONDIMENTS AND SALT

Spices, condiments and salt give flavour and taste to the food. In this unit, you will become familiar with the various spices and condiments used in our country, their importance in the diet as food additives and the preparations to which they are commonly added. Proper selection of spices to avoid adulterated ones and prevention of health hazards also form a part of this unit.

Structure

- 19.0 Objectives
- 19.1 Introduction
- 19.2 Selection of Spices
- 19.3 Commonly Used Spices and Condiments
- 19.4 Let Us Sum Up
- 19.5 Glossary
- 19.6 Answers to Check Your Progress Exercises

19.0 OBJECTIVES

After studying this unit, you will be able to:

- list the points which you have to keep in view in the selection of spices;
- state the importance of spices and condiments in our diet; and
- describe the utility of various spices and condiments used in our country.

19.1 INTRODUCTION

By now you have studied the various kinds of foods and their use in our daily diet. You have also learnt how these foods can be made into many different preparations. But, do you think you would enjoy cereal, pulse, vegetable, meat and egg preparations if salt and spices were not added to them? Surely, you would not. If the food is not tasty, it is not liked and not accepted even though it may be very nutritious and well cooked. Spices and condiments are substances which give taste, flavour and colour to the food, thus making it attractive and acceptable. Spices are also important to promote appetite as they stimulate the secretion of digestive juices in our body. Some of them are rich in minerals, especially iron, and some are a good source of B-complex vitamins. But their nutritional contribution in the diet is not of importance because they are consumed in small quantities. We should not consume spices in excessive amounts as this can cause irritation and lead to problems like acidity and ulcers.

A large variety of spices and condiments are used in Indian cooking. Some are more common in some parts of India and some in others. In this unit, you will learn about the many different kinds of spices used in our country.

Check Your Progress Exercise 1

- 1) Spices are important in the diet because
 - a)
 - b)
 - c)
 - d)

19.2 SELECTION OF SPICES

Spices should be selected wisely as there are many chances of these being adulterated. If we are not careful, we will buy inferior quality spices for the money spent. Besides, adulterated spices can be harmful.

Spices like turmeric and red chilli powder contain artificial colours which are extremely dangerous to our health. So while buying spices, take care of the following :

- 1) Avoid buying ground spices. Buy them whole and get them ground yourself as far as possible. This will save you from purchasing adulterated spices.
- 2) Spices should be free from gravel, grit and dirt.
- 3) They should be free from any moisture, fungus and bad colour.
- 4) In case you have to buy spices in ground form, then buy packets which have the seal 'Agmark' on them as these are of good quality.
- 5) If packets with 'Agmark' are not available, buy packets with well-known brand names. Avoid buying them loose as they may be adulterated. Some of the adulterants are listed below :

<i>Spice</i>	<i>Adulterant</i>
Turmeric	metanil yellow
Red Chilli Powder	husk with colour
Pepper	dried papaya seeds
Mustard Seed	poppy seeds

Check Your Progress Exercise 2

- 1) List the points that you will keep in mind while selecting spices.

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19.3 COMMONLY USED SPICES AND CONDIMENTS

Black Pepper (Kali Mirch): It is a commonly used spice. The berries are dried in the sun and used as such or after grinding. It is used in curds, salads, eggs and pulaos. White pepper is prepared by soaking black pepper seeds in water and rubbing off the skin. It causes irritation if used in excess.

Chillies: Green chillies are a good source of vitamin C. We use them in cooking vegetables, curries, meat, eggs, etc. and for making pickles. When they are ripe and dried, they are red. These are ground into powder and used in cooking to give colour, flavour and taste to food. You should not use chillies in excess as they irritate the stomach lining strongly.

Turmeric (Haldi): It is used as a spice for giving colour and flavour to the food. It has medicinal value too.

Coriander (Dhania): The leaves of the plant are used in making chutneys and to decorate the food. They also give a good flavour to it. The seeds are used as spice in the making of curries and garam masala.

Omum (Ajwain): It has varied use. It is added to cereal preparations like biscuits, dough for mathris, puris and parathas and in making pakoras. It promotes digestion besides giving flavour to the food. It has a large amount of iron and calcium.

Cumin (Jeera): It is used in curries and for making garam masala. It is also used as a seasoning in salads, vegetables, etc. You can roast the cumin seeds and powder them. Use this as a flavouring agent for curd preparations. It is rich in iron and calcium.

Mustard (Sarson): Raw mustard is very irritating but if you allow the seeds to crackle in hot fat the irritating effect is destroyed. The black variety of mustard is commonly used in our country. It is used to season sambar, pulses and other vegetable preparations. Mustard seeds are also used for extracting oil. Powdered mustard seeds of a different variety are used in the making of pickles as they help in preservation. These seeds are small and red in colour and do not contain any oil.

Fenugreek Seeds (Methi Seeds): The leaves (methi) are prepared as vegetable and the seeds of the plant are used as a spice. It is rich in iron. They also have the property of reducing blood sugar and are recommended for diabetics. They promote bowel movement.

Bay Leaves (Tej Patta): These are dried leaves used to give flavour to the food. They are commonly used in meat preparations, curries and pulaos.

Cardamom (Elaichi): It has a very strong flavour. It is used in curries, pulaos and in the making of garam masala. Green cardamom (Chhoti elaichi) has a pleasant and milder flavour than the bigger, black variety. It is used to flavour tea and in sweets like kheers and halwas.

Cinnamon (Dhalchini): It is a flavouring agent used in pulaos and curries and for making garam masala. It is one of the expensive spices. It is also irritating and so should not be used in excess.

Cloves (Laung): It has a strong flavour. It is used for making garam masala and in the making of curries and pulaos. As it is very expensive, its use is restricted to preparing food on special occasions.

Nutmeg (Jaiphal) and Mace (Javatri): They give a good flavour to food even when used in small quantities. Excessive amounts of these should be avoided as they are irritating.

Mint (Pudina) : Mint leaves can be dried, powdered and stored. They are used to flavour soups and sauces. The fresh leaves may also be ground with salt, tamarind, chillies and onion or coconut to make tasty chutneys.

Asafoetida (Hing): It is made by extracting the milk juice of some plants. It gives flavour to food and also helps in digestion. It is commonly used in pulse preparations.

Saffron (Kesar): It is grown mainly in Kashmir in India. It is important for giving colour and a pleasant flavour to food. It is used in the preparation of sweets like burfis, halwas, kheers, kulfi, sweet rice, etc.

Ginger (Adrak) : Dried ginger is also used as a spice. It promotes digestion and helps in relieving 'gas'. It should not be used in excess amounts as it is irritating.

Tamarind (Imli): It is commonly used in South India. Its juice is extracted after soaking in water for some time and then sieving it. It is used in curries, sambar, chutneys and sauces.

Mango Powder (Amchur): It is added to give a sour taste to food, which is liked by many people.

Garam Masala: It is commonly used in Indian cooking. It is made by drying and grinding together cumin-seeds, bay leaves, cardamoms, cloves, nutmeg, mace, etc. It is added to curries or dry vegetables at the time of serving to give them a rich flavour. Sambar powder which is common in South India contains coriander, fenugreek, cumin seeds, mustard, black pepper, red chillies, turmeric and asafoetida which are roasted and then powdered. Also leaves of citrus trees are ground with salt, a little oil, chillies and asafoetida and used as chutney powder in South India.

Salt: All the spices and condiments function in association with salt. Salt is not a spice but is the most commonly used ingredient in food preparations. It gives taste to the food. Salt is used in every community and for every age group. You can add it to the food of even infants and small children for whom spices like chillies, etc. are not used. Besides taste, salt is used for preservation of food. It is, therefore, used in making chutneys and pickles. It is also important in the treatment of diarrhoea which is so common especially among small children. For this, add some salt along with sugar to boiled and cooled water or other beverages given to the child to drink. At the same time, salt can be harmful to people suffering from high blood pressure. So, for them, use it in lesser amount or avoid it totally according to the doctor's advice. Intake of iodized salt is recommended as it provides iodine and prevents iodine deficiency disorders.

Practical Activity 1

List five to ten different spices commonly used in your region and the variety of preparations to which they can be added.

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19.4 LET US SUM UP

India is known as the land of spices since ancient times. An endless variety of spices are used in our country. They make the food rich, tasty and attractive. Although some spices have some important minerals and vitamins, it is not of value to us as we consume them in small quantities. Excessive use of the more irritating spices like chillies, black pepper, cinnamon, cloves, nutmeg and mustard should be avoided. As spices are easily adulterated, their selection should be done carefully. As spices make food tasty and enhance appetite we should be cautious not to overheat foods.

19.5 GLOSSARY

- Adulterated** : Mixed with inferior quality or undesirable material.
- Appetite** : Natural desire for food.

Diarrhoea	: A condition in which watery stools are passed frequently.
Food Additive	: Edible materials added to foods to enhance flavour, texture, colour or any other food quality or to act as a preservative and prevent food spoilage.
Food Adulterant	: Non-edible materials added to foods with the motive of making profit, which can reduce the quality of food or even prove a health hazard.
Inflammation	: Redness and swelling.
Stimulate	: To excite.
Ulcers	: Sores on the inner lining of the gastrointestinal tract.

19.6 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) a) Spices make food attractive.
- b) Spices give it taste, flavour and colour.
- c) Spices are appetite stimulating.
- d) Some of them are rich in minerals and B-complex vitamins.

Check Your Progress Exercise 2

- 1) a) Avoid buying ground spices.
- b) Spices should be free from gravel, grit and dirt.
- c) They should be free from moisture, fungus and bad odour.
- d) Buy spices of good quality with the 'Agmark' seal or of any other reputed brand.

UNIT 20 SELECTION, PREPARATION AND NUTRITIVE VALUE OF BEVERAGES

Beverages are necessary to meet the water needs of our body. However, they also provide some nutrients. In this unit we will discuss different beverages, their constituents, nutrient content and the manner of their preparation.

Structure

- 20.0 Objectives
- 20.1 Introduction
- 20.2 Tea
 - 20.2.1 Types of Tea
 - 20.2.2 Composition of Tea
 - 20.2.3 Purchase of Tea
 - 20.2.4 Preparation of Tea
- 20.3 Coffee
 - 20.3.1 Composition of Coffee
 - 20.3.2 Selection and Purchase of Coffee
 - 20.3.3 Preparation of Coffee Beverage
- 20.4 Fruit Juices
- 20.5 Carbonated Beverages
- 20.6 Milk Based Beverages
- 20.7 Let Us Sum Up
- 20.8 Glossary
- 20.9 Answers to Check Your Progress Exercises

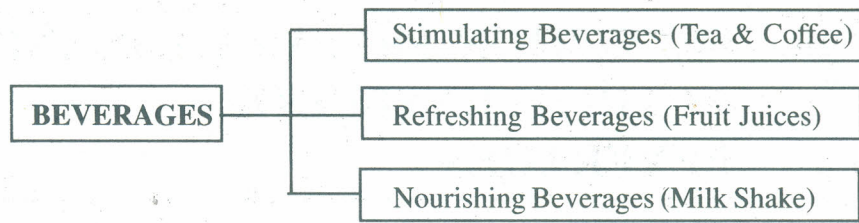
20.0 OBJECTIVES

After studying this unit, you will be able to:

- list the different types of beverages;
- list the constituents of these beverages;
- describe the manner of preparation of various beverages; and
- describe the contribution of these beverages to our diet.

20.1 INTRODUCTION

We all know that our body needs water for various purposes. We drink water directly as well as in the form of different beverages like tea, juices, milk shakes, etc. Not only do these beverages fulfil our requirement of water but they also perform many other functions. Don't you feel refreshed after drinking a glass of chilled juice? Don't you feel less tired after a hot cup of tea? Depending on the changes they bring about in our body, beverages may be classified into three categories :



- Stimulating beverages are those which stimulate the nervous system. They make us feel more active and alert. Tea and coffee contain certain stimulants like theine and caffeine.
- Refreshing beverages like fruit and vegetable juices instil a feeling of freshness.
- Nourishing beverages are those which provide certain nutrients to our body. Most milk based beverages like milk shakes, etc., can be included in this category.

Check Your Progress Exercise 1

- 1) Indicate which of the following beverages are stimulating, nourishing or refreshing.
 - a) Carbonated beverages
 - b) Coffee
 - c) Tomato Juice
 - d) Tea
 - e) Chocolate Milk Shake
 - f) Banana Juice
 - g) Orange Juice
 - h) Ice Cream Soda
 - i) Mixed Vegetable Juice (carrot, tomato)

20.2 TEA

Let us now read about the stimulating beverage—tea. You are very familiar with this beverage. In fact, India is a major tea producing country and Indians are large consumers of tea. The tea leaves that are available in the market are obtained from the tea plant. The tea plant is a bush which is pruned to produce many young shoots. The tea leaves are then plucked. Leaves plucked in spring and early summer give better tea than those plucked in late summer and winter.

20.2.1 Types of Tea

Depending on how tea is processed, different varieties of tea are obtained. Black tea is well known to us. The beverage prepared has an amber colour, is less bitter and has a good flavour. Generally, the various brands of tea available in the market are blends of different tea leaves. Besides black tea, green tea is also consumed in various countries. Though green tea is not popular in our country, it is very common in Japan, China and the Far East. Green tea which has a greenish yellow colour, is more bitter and has less flavour compared to black tea.

20.2.2 Composition of Tea

The nutritional value of tea is of very little significance. Nutrients obtained from this beverage are those present in milk and sugar added to the leaves. As mentioned earlier, tea is a stimulating beverage. This is due to the presence of *thiene*, which is a stimulant to the nervous system. No wonder we feel relaxed after a hot cup of tea.

Besides theine tea contains tannin which gives a bitter flavour to the beverage. You must have noticed that if you add excess tea leaves or boil tea leaves in water for a long time, the beverage produces a bitter taste. This is due to the presence of large amounts of tannin. Tannins are regarded as anti-nutritional factors because they interfere with the absorption of iron present in the food. Tea also contains certain volatile substances which impart flavour. The difference in flavour of various kinds of tea is due to the presence of different volatile substances. The flavour of black tea is also bitter due to the presence of these compounds.

Check Your Progress Exercise 2

1) a) List the three constituents of tea :

1) 2) 3)

b) Describe the function of these constituents.

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20.2.3 Purchase of Tea

Tea is available in a number of brands in the market. How do you select brands of your choice? All well-known packets of tea are blends combined for maximum flavour. Depending on your preference for a strong or light beverage, bitter or not so bitter beverage, you should carefully select the brand of your choice. Tea bags have become very popular in the present day. These are small bags containing tea leaves. The bag is dipped in boiling water to prepare tea. They are convenient to carry, easy to use, but costly. Tea flavoured with spices, orange or lemon is also available but is expensive. The flavour of tea deteriorates with age. So be sure to check the date of manufacture mentioned on the packet before purchasing it.

20.2.4 Preparation of Tea

A tea pot is rinsed with hot water in order to pre-heat it. Generally, one tea-spoon of tea leaves per cup is put in the pre-heated tea pot and boiling water poured over it. This is allowed to steep. The 'steeping' time will depend on the flavour you desire. As mentioned earlier, if you leave the tea leaves in boiling water for a long time or you boil tea leaves in water, the beverage obtained is bitter to taste. The bitterness is due to large amounts of tannin being extracted in the water.

20.3 COFFEE

Coffee is a beverage which is popular in certain parts of our country especially in southern parts of India. Coffee is obtained from the beans of an evergreen plant. These green beans have very little flavour. Flavour is developed with the process of roasting. The extent of roasting will determine the flavour and colour of coffee.

20.3.1 Composition of Coffee

Coffee, like tea, has poor nutritional value except for the presence of niacin. Many of you may be consuming large quantities of coffee during stress conditions, like examination time, in order to increase your concentration. The reason for concentration is that coffee is also a stimulating beverage. The stimulant present in coffee is caffeine. Besides caffeine, certain bitter substances like tannin are also present but in very small quantities. Flavour compounds, which are present in coffee are destroyed by prolonged heating at very high temperatures.

Check Your Progress Exercise 3

- 1) Which of the following constituents are present in coffee? Tick the correct answers.
- a) Theine b) Flavour substances c) Caffeine
d) Tannin e) Bitter substances

20.3.2 Selection and Purchase of Coffee

These days, the instant coffee powder, available in metal cans or glass jars, is very popular. This is a blend of coffee. The selection of such coffee will depend on your personal likes and dislikes.

Freshly ground coffee is available as:

- coarse grind: suitable for filtered coffee.
- medium grind: } percolated coffee.
- fine grind: }

Depending on the method of preparation of coffee and your likes and dislikes, you can select from the various types of coffee available in the market.

20.3.3 Preparation of Coffee Beverage

The best cup of coffee is obtained when coffee is freshly ground at home. However, most of us prefer using instant coffee powder because it is easy to prepare. The flavour of this is also similar to that of ground coffee. The coffee beverage may be prepared in two ways :

- 1) *Percolation:* In this method we use a coffee percolator. Heated water is forced upwards through a tube into the compartment containing coffee. The water passes through the coffee powder several times before you obtain a transparent beverage. The time required will depend on the strength of the coffee you desire. For a stronger flavour the percolation time is longer, while a mild flavour may be obtained by percolating for a shorter duration.
- 2) *Filtration:* The filtration method is an easy method for preparing coffee. It is frequently used in South India. The water filters through the coffee placed in a perforated upper compartment and is collected in the lower compartment. If the perforations are too small the rate of filtration is slow.
- 3) *Boiling and steeping:* We have already discussed this method while studying the preparation of tea. Coffee is placed in boiling water so as to extract the flavour into the water. The time of soaking will depend on the strength of the coffee desired.

Practical Activity 1

- 1) Prepare a cup of tea in the following three ways and note the difference in flavour in each case :
- a) Boil tea leaves in water for 5 minutes.
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- b) Steep tea leaves for a short period (2-3 minutes).
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c) Steep tea leaves for a long period (5-10 minutes).

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2) Can you explain the reasons for these differences?

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20.4 FRUIT JUICES

At the beginning of this unit we mentioned that certain beverages are refreshing. Drinking a chilled glass of fruit juice on a hot summer afternoon makes us feel fresh. Fruits commonly used to extract juice are orange, mausambi and mango. Besides the refreshing effect, juices are generally very good sources of vitamin C. As you have studied earlier in Unit 4, vitamin C is very easily destroyed if exposed to air. Therefore it is important to drink a juice as soon as you prepare it. If you leave the extracted juice for some time vitamin C is destroyed.

CONSUME FRESH FRUIT JUICE

Currently preserved fruit juices are also available in bottles, tetra-packs and cans. These contain a preservative to prevent spoilage.

Practical Activity 2

1) List five fruits and five vegetables which may be used for preparing juice.

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20.5 CARBONATED BEVERAGES

Beverages like Campa Cola, Limca, Thums Up, etc. are commonly available in the market. These beverages are artificially sweetened, flavoured and coloured. They are called "Carbonated" because of the presence of carbon-dioxide gas. These drinks do not contain any fruit juice or fruit pulp. Therefore, these drinks are of very little nutritional significance and are consumed only for their taste. It would be more healthy to consume a glass of fruit juice rather than a glass of cola. These synthetic drinks are also more expensive.

Practical Activity 3

- 1) Prepare a glass of tomato juice. Calculate its cost and compare it with the cost of a bottle of aerated water (250 ml size).

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20.6 MILK BASED BEVERAGES

Most milk based beverages like milk shakes, ice-cream soda, etc. are nourishing. In other words, these provide some nutrients to us. You have already learnt in Unit 15 that milk is very nutritious. It is rich in protein, calcium, vitamin A and D. Besides milk the other ingredients in milk based beverages like fruits, sugar, etc., add to the nutritional value. A milk shake is generally a mixture of milk, sugar and fruits like strawberries, mangoes, etc., while ice-cream soda is a combination of ice-cream and soda.

Practical Activity 4

- 1) Visit the homes of ten of your friends and collect information on the fruits which they use in the preparation of milk based beverages.

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20.7 LET US SUM UP

Beverages help to meet the water needs of our body. Certain beverages like tea and coffee are mainly consumed for their stimulating effect. They have very little nutritional value. Carbonated beverages are very popular but are expensive and have no nutritional value. Therefore, like tea and coffee, they should not be consumed in excess. However, milk based beverages are nourishing and beneficial to our body. Fruit juices are refreshing as well as nutritious. Mixed vegetable juices are also refreshing and nourishing. These juices are to be preferred to other beverages.

20.8 GLOSSARY

Blends	:	mixtures.
Pruned	:	trimmed.
Roasting	:	a method of cooking using dry heat (explained in Unit 8).
Steep	:	allowing tea leaves or coffee to remain soaked in hot water to extract flavour.
Volatile	:	which escape easily or which evaporate.

20.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) a) Refreshing b) Stimulating c) Refreshing, Nourishing
d) Stimulating e) Nourishing f) Nourishing
g) Refreshing, Nourishing h) Nourishing i) Refreshing Nourishing

Check Your Progress Exercise 2

- 1) a) 1) Theine 2) Tannin 3) Volatile Substances

- b) Theine is a stimulating substance

Tannin imparts a bitter flavour, Volatile substances are flavour compounds

Check Your Progress Exercise 3

- 1) Flavour substances, caffeine, tannins, bitter substances.



UNIT 21 CONVENIENCE FOODS

Convenience foods or ready-to-eat foods are becoming more and more popular in the present times. A variety of these foods canned, packaged, frozen, etc., are now available in the market. Besides adding variety to our diet, they are easy to prepare and store. In this unit you will learn about their selection and use.

Structure

- 21.0 Objectives
- 21.1 Introduction
- 21.2 What Are Convenience Foods?
- 21.3 Advantages and Disadvantages of Usage of Convenience Foods
- 21.4 Types of Convenience Foods
 - 21.4.1 Canned Food
 - 21.4.2 Packed Food
 - 21.4.3 Frozen Food
- 21.5 Selection and Purchase of Convenience Foods
- 21.6 Let Us Sum Up
- 21.7 Glossary
- 21.8 Answers to Check Your Progress Exercises

21.0 OBJECTIVES

After studying this unit, you will be able to:

- list the different types of convenience foods;
- describe the advantages and disadvantages of using these foods; and
- select suitable convenience foods for inclusion in the diet.

21.1 INTRODUCTION

Convenience foods play a very important role in our lives today. With more and more women going out of the house to work, the time and energy spent in cooking food needs to be decreased substantially. We look for foods called convenience foods which are easy to prepare and do not spoil on storage. Convenience foods are also known as ready-to-eat foods. They are not only convenient to use but can be stored for a long period of time. These foods add variety in the diet as well as improve the quality of food. Many items require only the opening of a package or a can, heating of the contents or simple steps like mixing before serving. A visit to your local market will show you the great variety of such foods, which are available in the grocery shop. Today, the trend is towards packed foods rather than bulky foods. Even simple foods have undergone some processing to make them more convenient to use. For example, milk was earlier available only from the local dairy; now pasteurised milk is available in hygienically sealed bottles, polypacks, etc.

21.2 WHAT ARE CONVENIENCE FOODS?

Convenience foods are those products which are fully or partially prepared for consumption. In other words, part of the preparation process has been taken care of by the manufacturer. Thus, they are quick to prepare and serve. Canned peas are a 'convenience food' since shelling of the peas, cleaning, etc. has already been done. Similarly, a can of soup is also a 'convenience food' since it requires only heating before serving. However, it is important to note that generally such foods are expensive since the cost of preparation is added to the cost of the food.

21.3 ADVANTAGES AND DISADVANTAGES OF USAGE OF CONVENIENCE FOODS

If you compare traditional methods of cooking and the use of convenience foods, you will see that the time and effort involved in the latter is much less. A large variety of convenience foods can be prepared in a short period of time. If you follow the instructions written on the packet precisely, the preparation is not expected to go wrong, whereas in the traditional methods of cooking exact weighing and detailed and careful preparations are necessary to obtain good results. Some of you might argue that home cooked food taste better than these mass produced foods. However, one advantage of using such foods is that we may enjoy fruits and vegetables throughout the year irrespective of the season in which they grow, e.g. tinned fruits like mangoes, apricots, apples and their juices. These foods are processed during the season so that maximum freshness is ensured. These prepacked foods are easy to store, require less space and do not spoil. It is difficult to store a large amount of tomatoes but relatively easy to store a few bottles of tomato puree or sauce. Since these are 'prepared' there is no wastage and they are 100% edible.

The quality of these products is strictly controlled since most of them require quality control mark like the FPO, Agmark, ISI, etc. You must be wondering what do we mean by these? Certain institutions like the Bureau of Indian Standards have laid down certain quality conditions to be fulfilled. Products which meet these conditions are given these quality marks. Since the convenience food are processed, some nutrients are lost. However, the nutritive value of the food-stuffs can be improved by fortification. You must have noticed that vanaspati is fortified with vitamins A and D. In other words, additional amounts of vitamins A and D are added to the fat to improve its nutritional value. We must use convenience foods with care. A little neglect on our part can cause harm to us. It is of utmost importance to follow the instructions precisely as on the packet. Difference in taste and flavour may be observed if this is not done. In case of certain food like infant milk foods, if the formula is not correctly prepared, it may lead to dilution of nutrients. Also, if prepared under unhygienic conditions, it may lead to contamination, which may cause diarrhoea and vomiting. Proper storage of foods is essential. If an opened can is kept for a long time it may cause food poisoning. The presence of different bacteria in such cans can also cause several other illnesses. Most convenience foods contain some food additive. If the additive is not a permitted one it may prove to be carcinogenic i.e., prolonged consumption of such foods may lead to cancer. Similarly, excessive intake of sweetening or flavouring agents like monosodium glutamate, saccharine, etc. are harmful to the body.

Check Your Progress Exercise 1

- 1) Discuss briefly the advantages and disadvantages of using convenience foods.

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21.4 TYPES OF CONVENIENCE FOODS

When food is processed, its appearance, composition and texture may undergo some changes, e.g., wheat may be processed to make biscuits, bread, noodles. Convenience foods may be partially prepared or ready to eat. Some foods like instant noodles or gulab jamun mix require some cooking by the housewife to obtain the final product. The manufacturer only processes it partly. On the other hand, ready-to-eat foods like potato wafers, cornpuffs, etc., need no preparation at home.

Convenience foods may be classified into three groups :

- Canned foods
- Packed foods
- Frozen foods

21.4.1 Canned Foods

In this process of canning, prepared food is packed in airtight cans coated with tin or in a glass bottle or jar. Plastic containers capable of standing high temperatures may also be used. Tinned fruits, soups, juices are good examples of such foods. When the food is packed, the second step is to heat the contents to a particular temperature to destroy any germs present. The container is then sealed.

21.4.2 Packed Foods

Packaged foods are either dehydrated foods or dried foods. Dehydration is a process by which water from food is removed under controlled conditions. When you want to prepare these foods you have to add water (rehydrate). The taste of such foods closely resembles the fresh products from which they are derived. The quantity of dehydrated foods is small, but after cooking the volume increases four to eight times. Different types of packaged foods are soup cubes, chutney powder, instant dosa, vada, gulab jamun mix, custard powder, instant coffee powder, baby foods, etc.

21.4.3 Frozen Foods

Frozen foods are preserved by the method of freezing. Most of the water present in the food is changed to ice, and thus prevents the growth of micro-organisms. Even though frozen foods are not widely used in our country, such foods available in the market include all types of meat, fish, poultry, vegetables, fruits, cakes, puddings, ice-creams, etc. You must be sure to buy these from stores which have appropriate storage facilities. At home these foods must be kept in the freezer till they are used.

Practical Activity 1

Give three examples of each of the following foods available in your market :

a) Canned

.....

b) Packaged

.....

c) Frozen

.....

21.5 SELECTION AND PURCHASE OF CONVENIENCE FOODS

There are certain facts one has to keep in mind while buying convenience foods. These are :

It is important to see that it is of good quality, of a reliable brand. Certification marks like ISI, Agmark or FPO on products are indicative of good quality.

The container of the food should provide the following information :

- i) Name of the food item
- ii) Brand name
- iii) Ingredients
- v) Directions for use
- v) Name and address of manufacturer
- vi) Weight
- vii) Price
- viii) Batch No.
- ix) Manufacturing date
- x) Date of expiry
- xi) Preservatives, artificial colours, flavours, etc. used
- xii) Standards—ISI/Agmark/FPO
- xiii) Nutrient composition

Buy sizes according to your requirement. Larger packagings are cheaper, dehydrated foods can generally be kept for six months to a year. Canned foods may be kept for longer periods but should be used within the permitted time to prevent spoiling.

Tins should be carefully examined before buying. Bulging at either end of the can may indicate spoilage of the content. Do not even taste such foods. Any change in appearance, flavour or smell may mean the food is spoilt.

Check Your Progress Exercise 2

1) What points will you keep in mind while purchasing canned foods?

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.....
.....

Practical Activity 2

Examine the containers of the following ready-to-eat foods to see if all the necessary information is provided on the label.

- | | | |
|---------------------|-----------------|-------------------------|
| a. Canned Soup | b. Tomato Sauce | c. Ready-to-eat noodles |
| d. Instant Dosa Mix | e. Jam | f. Fruit Juice. |

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21.6 LET US SUM UP

Convenience foods are those foods which require very little or no preparation. Advantages of using such foods are that they:

- are time saving
- minimise effort
- provide variety in the diet
- are available round the year
- require less space for storage
- spoil less
- are quality controlled
- may have an enhanced nutritive value

However, such foods should be used with care. A little negligence may cause serious illness. Types of convenience foods are varied viz., canned, packed and frozen foods. Criteria for selection of such foods include the use of quality marks, giving complete information of the product on the packet, date of manufacture, date of expiry and careful observation of the tin before buying.

21.7 GLOSSARY

Additives	:	Any permitted edible ingredient added to foods to retain quality like texture, colour, flavour or even nutritive value.
Adulterants	:	Ingredients not permitted, but added to foods with a motive to earn more profit.
Edible	:	That which can be eaten.
Fortification	:	Process of adding nutrients to foods.
Mass produced food	:	Foods produced in large quantities.
Thawing	:	The process of leaving frozen food where it can warm up so that it is ready for cooking or to eat.
Trend	::	Direction.

21.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- | | |
|----------------------------------|--|
| 1) Advantages: | Disadvantages: |
| a) Time saving | a) Important to use with care |
| b) Simple preparation | b) Maintain proper hygiene |
| c) Available throughout the year | c) Important to store carefully |
| d) Easy to store; do not spoil | d) If unpermitted additives are used they may be harmful |
| e) Quality is controlled, | |

Check Your Progress Exercise 2

- 1) a) Buy reliable brand with quality control marks.
- b) All necessary information should be provided on the package or tin.
- c) Buy sizes according to one's requirements.
- d) Examine tins carefully for any fault (dents or bloated).

MPDD-IGNOU/P.O. 2T/MAY, 2016 (Reprint)



ISBN : 81-7091-167-2