

## DIFFERENT METHODS OF COOKING, THEIR MERITS AND DEMERITS

### MOIST HEAT METHODS

#### **Boiling**

Boiling is a method of cooking foods by just immersing them in water at 100°C and maintaining the water at that temperature till the food is tender. Rice, egg, dhal, meat, roots and tubers are cooked by boiling.

#### **Merits:**

- ✓ Simple method -It does not require special skill and equipment.
- ✓ Uniform cooking can be achieved.

#### **Demerits:**

- ✓ Continuous excessive boiling leads to damage in the structure and texture of food.
- ✓ Loss of heat labile nutrients such as Vitamins B and C if the water is discarded.
- ✓ Time consuming - Boiling takes more time to cook food and fuel may be wasted.
- ✓ Loss of colour - water soluble pigments may be lost.

#### **Stewing**

It refers to the simmering of food in a pan with a tight fitting lid using small quantities of liquid to cover only half the food. This is a slow method of cooking. The liquid is brought to boiling point and the heat is reduced to maintain simmering temperatures (82°C -90°C). The food above the liquid is cooked by the steam generated within the pan. Apple, meat along with roots, vegetables and legumes are usually stewed.

#### **Merits :**

- ✓ Loss of nutrients is avoided as water used for cooking is not discarded.
- ✓ Flavour is retained.

#### **Demerit:**

- ✓ The process is time consuming and there is wastage of fuel.

#### **Steaming**

It is a method of cooking food in steam generated from vigorously boiling water in a pan.

The food to be steamed is placed in a container and is not in direct contact with the water or liquid. Idli, custard and idliappam are made by steaming. Vegetables can also be steamed.

fluffy. Eg. Idli.

**Merits :**

- ✓ Cooking time is less and fuel wastage is less.
- ✓ Steamed foods like idli and idliappam contain less fat and are easily digested and are good for children, aged and for therapeutic diets.
- ✓ Nutrient loss is minimised.

**Demerits:**

- ✓ Steaming equipment is required.
- ✓ This method is limited to the preparation of selected foods.

**Pressure cooking**

When steam under pressure is used the method is known as pressure cooking and the equipment used is the pressure cooker. In this method the temperature of boiling water can be raised above 100°C. Rice, dhal, meat, roots and tubers are usually pressure cooked.

**Merits :**

- ✓ Cooking time is less compared to other methods.
- ✓ Nutrient and flavour loss is minimised.
- ✓ Conserves fuel and time as different items can be cooked at the same time.
- ✓ Less chance for burning and scorching.

**Demerits:**

- ✓ Constant attention is not necessary.
- ✓ The initial investment may not be affordable to everybody.
- ✓ Knowledge of the usage, care and maintenance of cooker is required to prevent accidents.
- ✓ Careful watch on the cooking time is required to prevent over cooking.

**Poaching**

This involves cooking in the minimum amount of liquid at temperatures of 80°C- 85°C that is below the boiling point. Egg and fish can be poached.

**Merits :**

- ✓ No special equipment is needed.
- ✓ Quick method of cooking and therefore saves fuel.
- ✓ Poached foods are easily digested since no fat is added.

**Demerits:**

- ✓ Poached foods may not appeal to everybody as they are bland in taste.
- ✓ Food can be scorched if water evaporates due to careless monitoring.
- ✓ Water soluble nutrients may be leached into the water.

**Blanching**

This can be achieved by blanching. In this method, food is dipped in boiling water for seconds to 2 minutes depending on the texture of the food. This helps to remove the skin or peel without softening food. Blanching can also be done by pouring enough boiling water on the food to immerse it for short periods and then immediately immersing in cold water. The process causes the skin to become loose and can be peeled off easily.

**Merits :**

- ✓ Peels can easily be removed to improve digestibility.
- ✓ Destroys enzymes that bring about spoilage.
- ✓ Texture can be maintained while improving the colour and flavour of food.

**Demerit:**

- ✓ Loss of nutrients if cooking water is discarded.

**DRY HEAT METHODS****Roasting**

In this method food is cooked in a heated metal or frying pan without covering it. Eg. Groundnut.

**Merits :**

- ✓ Quick method of cooking.
- ✓ It improves the appearance, flavour and texture of the food.
- ✓ Spices are easily powdered if they are first roasted.

**Demerits:**

- ✓ Food can be scorched due to carelessness.
- ✓ Roasting denatures proteins reducing their availability.

**Grilling**

Grilling or broiling refers to the cooking of food by exposing it to direct heat. In this method food is placed above or in between a red hot surface. Papads, corn, phulkas, chicken can be prepared by this method.

**Merits :**

- ✓ Enhances flavour, appearance and taste of the product.
- ✓ It requires less time to cook.
- ✓ Minimum fat is used.

**Demerit:**

- ✓ Constant attention is required to prevent charring.

**Toasting**

This is a method where food is kept between two heated elements to facilitate browning on both sides. Bread slices are cooked by toasting.

**Merits :**

- ✓ Easy and quick method.
- ✓ Flavour improved.

**Demerits:**

- ✓ Special equipment required.
- ✓ Careful monitoring is needed to prevent charring.

**Baking**

In this method, the food gets cooked in an oven or oven-like appliance by dry heat. The temperature range maintained in an oven is 120°C – 260°C. The food is usually kept uncovered in a container greased with a fat coated paper. Bread, cake, biscuits, pastries and meat are prepared by this method.

**Merits :**

- ✓ Baking lends a unique baked flavour to foods.
- ✓ Foods become light and fluffy – cakes, custards, bread.
- ✓ Uniform and bulk cooking can be achieved. Eg. bun, bread.
- ✓ Flavour and texture are improved.
- ✓ Variety of dishes can be made.

**Demerits:**

- ✓ Special equipment like oven is required.
- ✓ Baking skills are necessary to obtain a product with ideal texture, flavour and colour characteristics.
- ✓ Careful monitoring needed to prevent scorching.

### **Sauteing**

Sauteing is a method in which food is lightly tossed in little oil just enough to cover the base of the pan. The pan is covered with a lid and the flame or intensity of heat is reduced. The product obtained is slightly moist and tender but without any liquid or gravy. Foods cooked by sauteing are generally vegetables.

#### **Merits :**

- ✓ Takes less time.
- ✓ Simple technique.
- ✓ Minimum oil is used.

#### **Demerit:**

- ✓ Constant attention is needed as there is chance of scorching or burning.

### **Frying**

In this method, the food to be cooked is brought into contact with larger amount of hot fat.

When food is totally immersed in hot oil, it is called deep fat frying.

Samosa, chips, pakoda are examples of deep fat fried foods. In shallow fat frying, only a little fat is used and the food is turned in order that both sides are browned. Eg. Omelette, cutlets, parathas.

#### **Merits :**

- ✓ Very quick method of cooking.
- ✓ The calorific value of food is the cooking media.
- ✓ Frying lends a delicious flavour and attractive appearance to foods.
- ✓ Taste and texture are improved.

#### **Demerits:**

- ✓ Careful monitoring is required as food easily gets charred when the smoking temperature is not properly maintained.
- ✓ The food may become soggy due to too much oil absorption.
- ✓ Fried foods are not easily digested.
- ✓ Repeated use of heated oils will have ill effects on health.

## **COMBINATION OF COOKING METHODS**

### **Braising**

Braising is a combined method of roasting and stewing in a pan with a tight fitting lid. Flavourings and seasonings are added and food is allowed to cook gently . Food preparations prepared by combination methods are : Uppuma -Roasting and boiling. Cutlet -Boiling and deep frying. Vermicilli payasam -Roasting and simmering.

## **Microwave cooking**

Microwaves are electromagnetic waves of radiant energy. Food placed in the oven is heated by microwaves from all directions. Moist foods and liquid foods can be rapidly heated in such ovens. Food should be kept in containers made of plastic, glass or china ware which do not contain metallic substances. These containers are used because they transmit the microwaves but do not absorb or reflect them.

### **Merits :**

- ✓ Quick method – 10 times faster than conventional method. So loss of nutrients can be minimised.
- ✓ Only the food gets heated and the oven does not get heated.
- ✓ Food gets cooked uniformly.
- ✓ Leftovers can be reheated without changing the flavour and texture of the product.
- ✓ Microwave cooking enhances the flavour of food because it cooks quickly with little or no water.

### **Demerits:**

- ✓ Baked products do not get a brown surface.
- ✓ Microwave cooking cannot be used for simmering, stewing or deep frying.
- ✓ Flavour of all ingredients does not blend well as the cooking time is too short.

## **Solar Cooking**

Solar cooking is a very simple ✓ Simple technique that makes use of sunlight or solar energy which is a nonconventional source of energy. The temperature up to 140°C can be obtained which is adequate for cooking

### **Merits :**

- ✓ Very quick method of cooking.
- ✓ The calorific value of food is no special skill.
- ✓ Cost effective as natural sunlight is the form of energy.
  
- ✓ Original flavour of food is retained.
- ✓ There is no danger of scorching or burning.
- ✓ Loss of nutrients is minimum as only little amounts of water is used in cooking.

### **Demerits:**

- ✓ Special equipment is needed.
- ✓ Cannot be used in the absence of sunlight.

✓ Slow cooking process.