

TRINITY COLLEGE FOR WOMEN NAMAKKAL DEPARTMENT OF NUTRITION AND DIETETICS

FOOD SCIENCE
ODD SEMESTER

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METHODS OF COOKING

Some foods like fruits, vegetables and nuts are eaten raw. It is good that they are consumed raw as in the uncooked condition they retain most of their nutritive value. However most foods are cooked before being consumed

The process of subjecting foods to the action of heat is termed as cooking.

Objectives of cooking

Improves the taste and food quality

Cooking food to the required temperature for a required length of time can destroy all harmful microorganisms in food.

Cooking improves digestibility.

Cooking increases variety.

CLASSIFICATION OF COOKING METHODS

Moist Heat Method	Dry Heat Method	Combination Method
Boiling	Roasting	Braising
Stewing	Grilling	
Steaming	Toasting	
Pressure Cooking	Baking	
Poaching	Sauteing	
Blanching	Frying	

MOIST HEAT METHOD

Boiling

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

Stewing

When food is cooked with the heat from water vapors, it is called stewing. This method requires the food to be cooked in steam. Stewing is a long and slow cooking method where food is cut into pieces and cooked in the minimum amount of liquid, water, stock or sauce. The food and the cooking liquid are served together. In this slow method of cooking the liquid is heated to boiling point and heat is reduced to maintain simmering temperatures (820 $^{\circ}$ C – 900 $^{\circ}$ C).

Steaming:

It is a method of cooking food in steam generated vigorously from 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 idiappam are made by steaming. Vegetables can also be steamed.

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, meat, roots and tubers are usually pressure cooked.

Poaching:

This involves cooking in minimum amount of liquid at temperatures of $800^{\circ}\text{C} - 850^{\circ}\text{C}$ that is below the boiling point. Foods generally poached are egg, fish and fruits. For poaching eggs, the addition of little salt or vinegar to the cooking liquid lowers temperature of coagulation. Eggs get cooked quickly by poaching.

Blanching:

In meal preparation, it is often necessary only to peel off the skin of fruits and vegetables without making them tender. This can be achieved by blanching. eg. tomatoes can be blanched in this method, food is dipped in boiling water for 5 seconds to 2 minutes depending on the texture of the food. This helps to remove the skin or peel without softening food.

DRY HEAT METHOD

Roasting:

This method of cooking food by dry heat is roasting. While roasting, the food is subjected directly on a hot tava or girdle or sand or fire and cooked. Eg. Groundnuts

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.

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. Eg. sandwiches.

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 oven has to be heated slightly more than required temperature before placing the food in it. Foods prepared by baking are custards, pies, biscuits, pizzas, buns, bread and cakes. The same principle is used in tandoor ovens were you get tandoori chicken, tandoori meat and fish.

Sauteing:

This method involves cooking in just enough of oil to cover the base of the pan (greasing the pan). The food is tossed occasionally or turned over with a spatula to enable all the pieces to come in contact with the oil and get cooked evenly. Sometimes the pan is covered with lid, reducing the flame and allowing the food to be cooked till tender in its own steam. The product obtained by this method is slightly moist, tender but without any liquid or gravy. Foods cooked by sautéing are generally vegetables used as side dishes in a menu. Eg. poriyels in Indian cuisine. The heat is transferred to the food mainly by conduction.

Frying:

In this method, the food to be cooked is brought into contact with a large amount of hot fat. Frying is of two types namely deep get frying and shollow get frying. When food is totally immersed in hot oil, it is called deep fat frying. Samosa, chips, pakoda are examples of deep fat frying. In shallow fat frying, only a little fat is used and the food is turned in order that both the sides turn brown. Eg. Omelets, cutlets, parathas.

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

THANK YOU

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