COOKERY PROCESSES  
(COOKING METHODS)

A lot of cooking methods are used in catering and hotel industry. Each is specific and has its advantages and disadvantages. The cookery processes or cooking methods are:

a) Boiling  
b) Poaching  
c) Stewing  
d) Braising  
e) Steaming  
f) Baking  
g) Roasting  
h) Pot roasting  
i) Grilling  
j) Shallow Frying  
k) Deep Frying  
l) Microwaving

1. **Boiling**

![Boiling water](www.astro.su.se/.../small_500/Boiling_water.jpg)

1.1 Definition

Boiling is cooking prepared foods in a liquid (water, bouillon, stock, milk) at boiling point.

1.2 Methods

Food is boiled in two ways:
   a) food is placed into boiling liquid, reboiled, then the heat is reduced, so that the liquid boils gently – simmering;  
   b) food is covered with cold liquid, brought to the boil, then the heat is reduced, so that the food simmers.

1.3 Advantages
   a) older, tougher joints of meat can be made palatable and digestible  
   b) appropriate for large-scale cookery
c) economic on fuel
d) nutritious, well flavoured stock is produced
e) labor saving, requires little attention
f) safe and simple
g) maximum colour and nutritive value are retained with green vegetables
   – but the boiling time must be kept to the minimum

1.4 Disadvantages
   a) foods can look unattractive
   b) it can be slow
   c) loss of soluble vitamins in the water

1.5 Examples of foods which might be cooked by boiling
   - stocks (beef, mutton, chicken, fish)
   - sauces (brown, white, curry)
   - glazes (fish, meat)
   - soup (tomato, lentil)
   - farinaceous (pasta)
   - fish (cod, salmon)
   - meat (beef, leg of mutton)
   - vegetables (carrots, cabbage, potatoes).

2. Poaching

2.1 Definition

Poaching is cooking food in the required amount of liquid at just below boiling point.

2.2 Methods

   a) Shallow poaching: foods (fish, chicken) are cooking in the minimum of liquid (water, stock, milk or wine). The liquid is not allowed to boil; it is kept at a temperature close to boiling.
   b) Deep poaching: foods are cooked in enough water to cover them, brought to the boil and then simmered (eggs) or placed into simmering liquid and cooked gently.
2.3 Advantages
Poached food is easily digestible.

2.4 Disadvantages
- Skill is required for poaching food
- It is not a suitable method for many foods

2.5 Examples of foods which might be cooked by poaching
- farinaceous (gnocchi)
- eggs
- fish (sole)
- fruits (fresh and dried)
- poultry (chicken)

3. Stewing

3.1 Definition
Stewing is a long, 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.

3.2 Methods
All stews have a thickened consistency. Stewed foods may be cooked
- in a covered pan on the stove;
- in a covered pan in the oven.

3.3. Advantages
a) Meat juices are retained as part of the stew
b) Correct slow cooking results and very little evaporation
c) Economic on fuel  
d) Nutrients are conserved  
e) Tough foods are tenderised  
f) Economical in labour because the foods can be bulk cooked

3.4 Disadvantages

Stewing is a slow cooking method.

3.5 Examples of foods which might be cooked by stewing:

- fish (e.g. bouillabaisse – French fish soup / stew)  
- meat (goulash, minced beef, Irish stew, white stew of veal)  
- poultry (chicken fricassee, curried chicken)  
- vegetables (ratatouille)

4. Braising

4.1 Definition

Braising is a method of cooking in the oven. The food is cooked in liquid in a covered pan or casserole. It is a combination of stewing and pot roasting.

4.2 Methods

a) Brown braising: joints and portion cuts of meat are marinaded and may be larded and then sealed quickly by browning on all sides in a hot oven or in a pan on the stove. Sealing the joints helps retain flavour and nutritive value and gives a nice brown colour. Joints are then placed on a bed of root vegetables in a braising pan, with the liquid and other flavourings, covered with a lid and cooked slowly in the oven.

b) White braising: vegetables and sweetbreads are blanched, refreshed and cooked on a bed of root vegetables with white stock in a covered container in the oven.
4.3 Advantages

a) Older, tougher joints of meat and poultry can be used
b) maximum flavour and nutritive value are retained
c) variety of presentation and flavour is given to the menu

4.4 Examples of foods which might be cooked by braising:

- farinaceous (rice)
- meat (lamb, beef)
- poultry (duck)
- vegetables (celery, onions)

5. Steaming

5.1 Definition

Steaming is cooking prepared foods by steam (moist heat) under varying degrees of pressure.

5.2 Methods

a) Atmospheric or low pressure steaming: food may be cooked by direct or indirect contact with the steam:
   - direct: in a steamer or in a pan of boiling water (steak);
   - indirect between two plates over a pan of boiling water.

b) High pressure steaming: in purpose-built equipment which does not allow steam to escape; steam pressure builds up, the temperature increases and cooking time is reduced.

5.3 Advantages

a) Retention of nutritional value
b) Some foods become lighter and easier to digest
c) Low pressure steaming reduces the risk of overcooking
d) High pressure steaming enables food to be cooked quickly, because steam is forced through the food, cooking it rapidly  

e) Labour-saving and suitable for large-scale cookery  
f) High speed steamers enable frequent cooking of small quantities of vegetables. Vegetables are freshly cooked, retaining colour, flavour and nutritive value.  
g) With steamed fish, natural juices can be retained; they are served with the fish or used to make an accompanying sauce.  
h) Economical on fuel (low heat is needed and a multi-tiered steamer can be used).  

5.4 Disadvantages  
a) Foods can look unattractive  
b) It can be a slow method  

5.5 Examples of foods which might be cooked by steaming:  
- fish (sole)  
- meat (tongue, ham, bacon)  
- vegetables (almost all)  

6. Baking  

6.1 Definition  
Baking is cooking food by dry heat in an oven (the action is modified by steam).  

6.2. Methods  
a) Dry baking: during the baking process steam rises from the water content of the food; it combines with the dry heat of the oven to cook the food (cakes, pastry, baked jacket potatoes).
b) Increased humidity baking: during the baking process with some foods (bread) the oven humidity is increased by placing a bowl of water into the oven to increase the water content of the food and to improve eating quality.

c) Bain marie: during the baking process food is placed in a container of water (bain marie) to cook the food more slowly.

6.3 Advantages

a) A wide range of savoury and sweet foods can be produced.
b) Bakery products are appealing to the eye and to the mouth.
c) Bulk cooking can be achieved with uniformity of colour and degree of cooking.
d) Baking ovens have effective manual or automatic controls

e) Straightforward access for loading and removal of items.

6.4 Disadvantages

a) Requires regular attention
b) Expensive energy

6.5 Examples of foods which might be cooked by baking:

- eggs
- meat (steak, cornish pastries)
- chicken
- vegetables (potatoes)
- apples
- fruit flans
- cakes
- bread.

7. Roasting
7.1 Definition
Roasting is cooking in dry heat in an oven or on a spit with the aid of fat or oil.

7.2 Methods
a) Placing prepared foods (meat, poultry) on a roasting spit over/in front of radiating heat;
b) Placing prepared foods in an oven with:
   - dry heat
   - forced air convected heat
   - convected heat combined with microwave energy

7.3 Advantages
a) Good quality meat and poultry is tender when roasted
b) Meat juices from the joint are used for gravy
c) Use of energy and oven temperature can be controlled
d) Cooking can be observed (transparent oven doors)
e) Straightforward access, adjustment or removal of items
f) Continual basting with meat juices adds to a distinctive flavour

7.4 Disadvantages
a) Requires regular attention
b) Expensive energy

7.5 Examples of foods which might be cooked by roasting:
- meat (lamb, beef, pork, veal)
- poultry and game (duck, chicken, pheasant)
- vegetables (potatoes, parsnips)

8. Pot roasting

![Pot roast](arm1.static.flickr.com/122/266983683_19bb810...)
8.1 Definition

Pot roasting is cooking on a bed of root vegetables in a covered pan. This method retains maximum flavour of all ingredients.

8.2 Method

Food is placed on a bed of root vegetables and herbs, coated with butter or oil, covered with a lid and cooked in an oven.

8.3 Advantages

a) Maximum flavour is retained  
b) Nutrients are retained  
c) Cheaper cuts of meat can be used  
d) Vegetables used in pot roasting can be served as an accompaniment

8.4 Disadvantages

Pot roasting is a slow cooking method.

8.5 Example of food which might be cooked by pot roasting:

- meat (cheaper cuts)

9. **Grilling**

9.1 Definition

Grilling is a fast method of cooking by radiant heat (also called broiling).

9.2 Methods

Grilled foods can be cooked:
a) over heat (charcoal, barbecues, gas or electric grills)
b) under heat (gas or electric grills, gas or electric salamanders over fired grills)
c) between heat (electrically heated grill bars or plates)

9.3 Advantages

a) Food can be quickly cooked to order
b) Charring foods gives them a pleasing appearance and better flavour
c) Better control as food is visible during cooking

9.4 Disadvantages

a) More suitable for expensive cuts of meat
b) Requires skill

9.5 Examples of foods which might be cooked by grilling:

- fish (cod, herring, mackerel, plaice)
- meat (chops, steak)
- vegetables (mushrooms, tomatoes)
- savouries
- toasted items (bread, muffins, tea cakes)

10. Shallow frying

10.1 Definition

Shallow frying is cooking food in a small quantity of pre-heated fat or oil in a shallow pan or on a flat surface.

10.2 Methods

a) Shallow fry: cooking food in a small amount of fat or oil in a frying pan or saute pan. The food is first fried on the presentation side, then turned, so that both sides are cooked and coloured.
b) Saute:
- cooking tender cuts of meat and poultry in a saute or frying pan. After cooking the fat is discarded and the pan is deglazed with stock or wine as a part of the finished sauce.
- cooking potatoes or onions which are cut into slices and tossed into hot shallow fat or oil in a frying pan till golden brown.

c) Griddle: Hamburgers, sausages, sliced onions are placed on a lightly oiled, pre-heated griddle (solid metal plate) and turned frequently during cooking.

d) Stir Fry: fast frying in a wok or a frying pan in a little fat or oil (vegetables, strips of beef or chicken).

10.3 Advantages

a) Quick cooking method
b) No loss of soluble nutrients
c) Good colour

10.4 Disadvantages

a) Suitable for expensive cuts of meat
b) Not easily digested
c) Requires constant supervision

10.5 Examples of foods which might be cooked by shallow frying:

- eggs (omelettes)
- fish (sole, plaice, trout, cod, herring)
- meat (lamb, kidneys, beef Stroganoff)
- poultry (chicken)
- vegetables (potatoes, onions, cauliflower, chicory)
- sweets and pastries (pancakes)
- savouries.

11. Deep frying
11.1 Definition

Deep frying is cooking food in pre-heated deep oil or fat.

11.2 Methods

Conventional deep-fried foods (except potatoes) are coated with milk and flour, egg and crumbs, batter or pastry to protect the surface of the food from the intense heat, to prevent the escape of moisture and nutrients and to modify the rapid penetration of the intense heat. The food is placed into deep pre-heated oil or fat, fried until cooked and golden brown, drained and served.

11.3 Advantages

a) Quick cooking method
b) No loss of soluble nutrients
c) Ensures good colour

11.4 Disadvantages

a) Not easily digested
b) Safety hazard

11.5 Examples of foods which might be cooked by deep frying:

- eggs (Scotch eggs)
- fish (haddock)
- chicken (cutlets)
- savoury (cheese fritters)
- potatoes (croquettes, chips)
- vegetables (onions)
- pastry and sweets (pineapple fritters, doughnuts)

12. Microwaving
12.1 Definition

Microwave cookery is cooking or reheating food using electromagnetic waves in a microwave oven powered by electricity. Microwaves activate the water molecules or particles of food, causing heat by friction which cooks or reheats the food.

12.2 Advantages

a) Very fast method of cooking  
b) Fast method of defrosting  
c) Economical on electricity and labour  
d) Food is cooked in its own juices, so its flavour is retained  
e) Minimises food shrinkage and drying-out

12.3 Disadvantages

a) Not suitable for all foods  
b) Limited space  
c) Can only penetrate 5 cm into food (from all sides)

12.4 Examples of foods which might be cooked by microwave:

- farinaceous (pasta)  
- fish (trout, salmon)  
- vegetables (potatoes)  
- pre-cooked meals

QUESTIONS

Part I

1. Enumerate some cooking methods.  
2. What is boiling?  
3. What is poaching?  
4. What is stewing?  
5. What is braising?  
6. What is steaming?  
7. What is baking?  
8. Enumerate the cooking processes where food is cooked in liquid.  
9. Which cooking processes can you use for meat?  
10. Which cooking processes can you use for vegetables?  
11. Which methods are the healthiest?
Part II

1. Enumerate some cooking methods.
2. What is roasting?
3. What is pot roasting?
4. What is grilling?
5. What is shallow frying?
6. What is deep frying?
7. What is microwaving?
8. Enumerate the cooking processes where food is prepared with fat/oil.
9. Which cooking processes can you use for fish?
10. Which cooking processes can you use for eggs?
11. Which methods are the least healthy?

http://www.netcomuk.co.uk/-media