


## Cooking and Serving Handout

### Outline

- Objectives of cooking
- Cross-contamination
- Microwave cooking
- Cooking guidelines
- Tableware and utensils
- Handling ice
- Guideline on cooling and re-heating

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### **Objectives of cooking**

The cooking process causes a number of physical and chemical changes in foods. The 3 objectives that should be achieved in the cooking process are:

1. To destroy harmful microorganisms
2. To increase the digestibility of food
3. To alter the form, flavor, color, texture and appearance of food products

### **Food safety concerns during cooking**

The two primary concerns during the cooking process, which are at the root of most food-borne illness, are:


- Time and temperature control
- Cross-contamination

### **Precautions to control temperatures, contamination and cross-contamination:**

- Display ready to eat cold food in serving containers, never directly on ice
- Display units intended for crushed ice must be self-draining
- Near chilled items, use lighting that will not raise food temperatures; buffet lighting needs protective plastic shields or plastic coated lights to guard against broken glass
- Self-service soup containers require a cover
- Condition and temperature of food must be checked

### **Precautions to control temperatures, contamination and cross-contamination:**

- Once served, foods must be discarded and not re-served
- Position serving dishes in such a way that it eliminates handling by customers
- Each food item should have its own serving utensil; use long handled utensils to keep hands away from food
- Stir food regularly and frequently to make certain that it remains hot throughout
- Cover serving containers to retain heat and protect against splash, spillage and physical contaminants

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- Set out smaller portions during low demand to maintain quality and temperature
- Never mix new food with old food

### **Guidelines for temperatures of food display units**

- Chilled food must be brought to the display area in a chilled state, below 4°C
- Hot food must be brought to the display area in a hot state, that is above 65 °C and kept at that temperature afterwards
- Food to be displayed at ambient temperature must only be displayed immediately before service

### **Foods cooked in a microwave oven must:**

- Be allowed to stand covered for 2 minutes after cooking
- Rotated or stirred throughout, or at least midway in the cooking process
- Microwave ovens might cook some foods unevenly. As an example, microwaves heat and cook the outside layers of thick foods (such as roasts), while the interior is cooked by conduction, a slower heating process
- Because of the uneven distribution of microwaves and the variations in the distribution of water in food products, foods such as beef roasts should be cooked to 68°C and pork to at least 82°C in a microwave oven. This will minimize the effect of bone in meat and meat with cold pockets
- Stuffed fish should be cooked to a minimum internal temperature of 88°C.

### **Cooking meat and poultry**

- If frozen joints of meat are used they must be thawed thoroughly in a refrigerator before cooking
- Any stuffing must be cooked separately
- Cook thoroughly and ensure that the core temperature of the joint reaches at least 75°C. Use a thermometer to check this.
- Once cooked, serve immediately if possible, or maintain above 63° C until required. If the meat is required for cold service, cool rapidly and place under refrigeration. Meat should never be re-heated unless as part of a carefully controlled process

### **Cooking sauces, gravies and similar**

- Cook sauces and gravies thoroughly and ensure that the core temperature reaches at least 75°C. When cooking is complete serve immediately, or maintain above 63°C in a bain-marie or hot cabinet, and serve as quickly as possible

- Use stocks produced in-house within 48 hours of preparation and always re-heat above 75°C
- When cooking sauces, stocks and gravies, stir frequently to distribute heat. Keep the lids on pans to retain heat and ensure that the pans are not exposed to cold air or draughts.
- Use wide pans in preference to tall pans, ensuring that the heat source covers the whole of the base of the pan
- Do not re-heat sauces unless as part of a properly controlled process in which case sauces must be cooled rapidly after initial cooking and stored in a refrigerator.

### **Self-service counters**

- The holding equipment used to display food for service must maintain cold food at 4°C or below and hot food at 65°C or above.
- Food on display must not be allowed to reach the temperature of danger zone
- Reheat hot food to 75°C for at least 2 minutes before placing it on display
- Label all food items; this will avoid guest food sampling and cross traffic
- Servers should provide guests with clean tableware each time they go to the buffet

### **General procedures for serving food**


- Display food in small quantities – it is always better to replenish than to allow them to remain at ambient temperature
- Ensure turnover within 30 minutes
- Food must be served safely, efficiently and promptly
- Do not allow potentially hazardous food to reach temperature of danger zone range between production and service
- Hot food must be served on heated plates and cold food on chilled plates

### **Guidelines for protecting foods on display**

Protect food on display from contamination by using packaging, proper holding equipment, protective food guards, display cases, or other effective means.

### **Sources of possible contamination:**

- ✓ The general public through hands, clothing, coughing and sneezing
- ✓ Raw food on display in close proximity
- ✓ Decorative items to enhance the display which have not been washed sufficiently or are difficult to wash

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- ✓ Insects
- ✓ Broken packaging

**Guidelines on handling tableware and utensils**

- Store flatware in drawers in the same direction so that they can be picked up by their handles
- Glasses should be carried with a tray and touched only at the base – never put fingers inside the glass or by the rim
- Avoid unnecessary hand contact with food


**Guidelines on handling tableware and utensils**

- Servers must wash their hands before starting work and frequently throughout service and after touching hair or skin, sneezing, coughing, using a handkerchief, smoking, visiting the restroom, handling raw food products, or handling soiled containers or tableware, or clearing tables
- Staff must hold plates with four fingers on the bottom and the thumb on the edge, never touching the food
- Cups and flatware should be touched only on the handles
- Use designated serving utensils – clean tongs, serving spoons forks and scoops
- Use each utensil for only one kind of food item
- Use long handled utensils that keep hands away from food
- Keep serving utensils in the dish with the handle extending out of the food
- Service counters that hold 'Mise en place' such as operating equipment, ice, condiments, clean napkins, tablecloths, beverages, or dairy products must:
  1. Be stored hygienically to minimize contamination
  2. Never be mixed with soiled tableware, napkins or equipment
- Ensure that food products stored at service counters are refrigerated and kept out of temperature danger zone
- Never carry a service towel or napkin over shoulder or under the arm
- Use clean serving trays for setting and clearing tables
- Clean and sanitize serving trays frequently

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**Guidelines on handling ice used by guests**

- Ice must be handled as carefully as handling food
- Ice used for beverages, food and cooling must be from approved sources (such as drinking water) and protected from contamination
- Ice used for food display or to cool down food for storage or other purposes cannot be used for guest consumption
- Cover ice containers between use and clean them regularly
- Store ice-dispensing utensils between use in ice scoop holders that are clean, dry, and self-draining

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## Cooling food

### Guidelines for cooling food

Rapid cooling of cooked foods to be chilled is very important. Bacteria may survive cooking and there is always a risk of contamination after cooking.

Cooling must be carried out in within the time and temperature criteria by using one or more of the following methods, based on the type of food being cooled:

- Placing the food in cool shallow containers
- Separating the food into smaller or thinner portions
- Using rapid cooling equipment (for example a blast chiller)
- Stirring the food in a container placed in an ice water bath
- Using containers that facilitate heat transfer adding ice as an ingredient
- With large roasts, removing the bone will speed cooling
- Another method for quick chilling is to agitate food in the container while exposing it to ice or ice water
- Never freeze leftover food products
- Cover, label and date food before it is refrigerated

### Guidelines for the re-heating of food

- Re-heating meat increases the risk of a food poisoning occurrence.
- Wherever possible, try to avoid dishes where meat must be prepared in advance of service and re-heated.
- Food must never be re-heated using a steam table or a hot cabinet. This equipment is not designed to produce sufficient internal temperatures in food products to destroy bacteria
- Do not use recipes that include re-heating meat unless the meat can be cooled rapidly to below 4°C after the final heat processing stage or the final preparation stage
- Once cooled to below 4°C the food must be placed into a refrigerator immediately
- Carry out any re-heating as quickly as possible
- When re-heating food make sure it reaches a core temperature above 75°C for a period of at least 2 minutes.

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- Record temperature achieved when the food is re-heated
- Serve immediately or maintain above 63°C and serve as soon as possible

Never re-heat food for a second time