



Culinary Institute  
of America

# Cooking Principles I

Day Four: Moist-Heat Cookery:  
Poaching, Steaming, En  
Papillote, Boiling, Simmering



# Learning Objectives

- Define moist heat cooking methods.
- Identify appropriate tools/equipment and ingredients that may be used for each method.
- Demonstrate the basic procedure for moist heat and combination cooking methods.
- Differentiate between shallow- and deep-poaching techniques
- Discuss the importance of temperature control and heat management when applying these methods

# Learning Objectives

- Determine correct doneness for moist heat cooking items.
- Identify types of sauces that may accompany these items
- Plate/ Pan moist heat cooking items.

# Key Terms

- Beurre blanc
- Boil
- Brazier
- Braise
- Cartouche
- Court Bouillon
- Cuisson
- Deep poach
- En Papillote
- Moist heat
- Pan Steaming
- Shallow poaching
- Simmer
- Steam jacketed kettle
- Steam
- Stew
- Tilting skillet
- Vapor bath

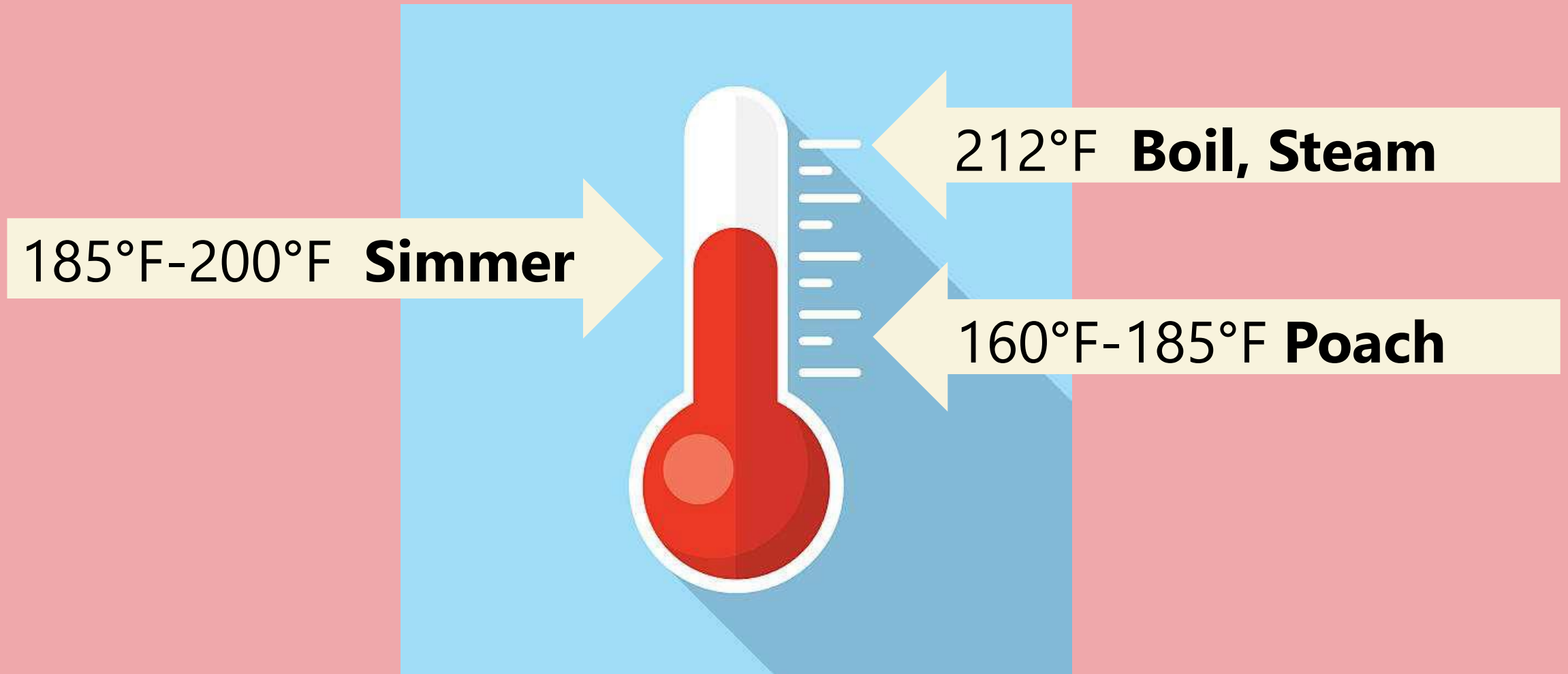
# Moist Heat Cookery

- **Steam:** cook item in a vapor bath created by boiling liquid
- **Poach:** cook item gently in simmering liquid at 160°F to 185°F
- **Simmer:** maintain the temperature of a liquid just below boiling or to cook item immersed in liquid at 185°F to 200°F
- **Boil:** cook items by fully immersing in liquid at the boiling point of 212°F

# Moist Heat Cookery

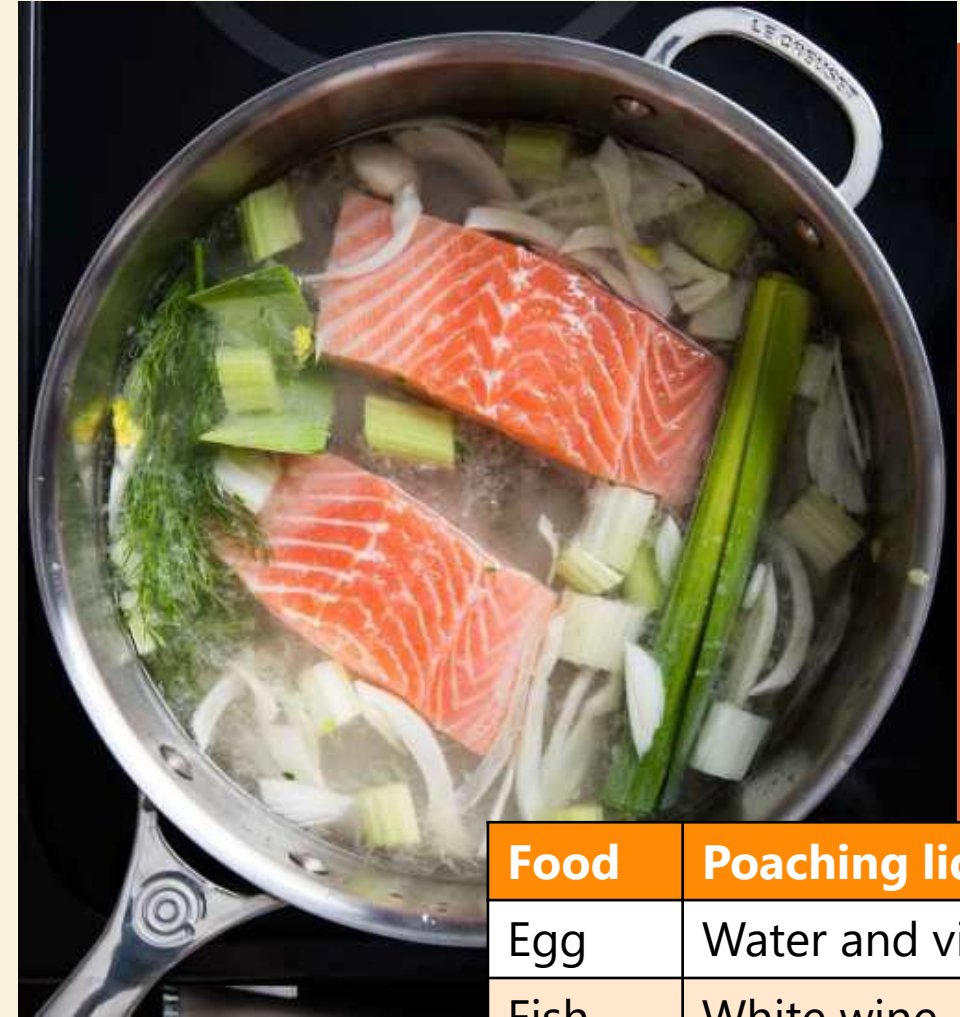
- Items have a distinctively different flavor, texture, and appearance than items cooked using dry-heat
- Generally subtly flavored
- Simple, straight-forward appeal
- Items require careful monitoring of cooking temperatures and times

# Moist Heat Temperature



# Poaching

- Item partially or fully submerged in liquid
- Relatively lower temperature
- Limited added oils/ fat
- Sauce often served with item
- For delicate items like egg, poultry, fish, fruit which would break apart with other methods
- Short holding times



| Food    | Poaching liquid   |
|---------|-------------------|
| Egg     | Water and vinegar |
| Fish    | White wine        |
| Poultry | Stock             |
| Fruit   | Red wine          |



# Poaching: Court Bouillon

- ("coor boo-YONE") French: "briefly boiled broth"
- Flavorful, aromatic liquid
- Can contain water, vegetables, aromatics, and acid
- Brief cooking time compared to deeply flavored stock
- Used for poaching with a light color
- After poaching it is discarded



# Poaching: Ingredients

- Tender, portion-sized items
- Suitable Foods:
  - Meats, fish, shellfish, fruits, vegetables, and eggs
- Cooking medium
  - Should contribute flavor to food
  - Sauce prepared from cooking liquid (if applicable)
    - Stock, court bouillon, wine, vinegar, citrus juices, etc.
- Aromatic Ingredients
  - Shallots, vegetables, herbs, spices, citrus zest

# Poaching: Shallow/ Submerged



## Shallow

Less liquid

Portion-size cuts

Liquid (Cuisson) always used

Covered with lid

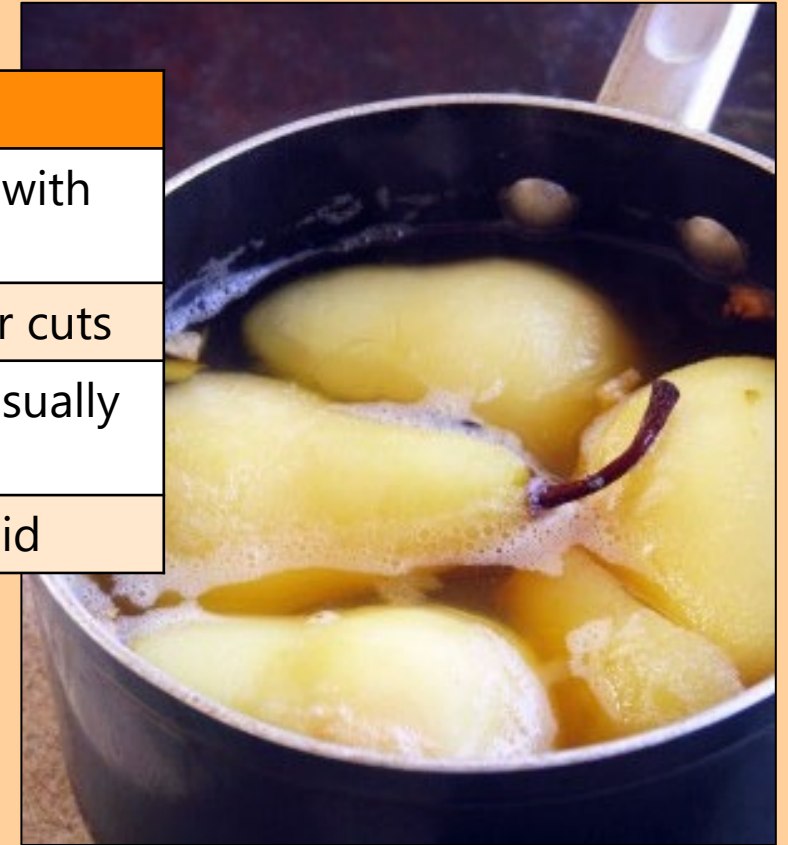
## Submerged

Completely covered with liquid

Portion-size or larger cuts

Cooking liquid not usually used

Never covered with lid



# Shallow-Poaching: Method



1. Place butter in a sauteuse with aromatics in an even layer.
2. Add main item and poaching liquid.
3. Bring liquid to a simmer.
4. Cover sauteuse with buttered parchment.
5. Finish over direct heat or in oven.
6. Remove main item, moisten, keep warm.
7. Reduce cuisson and prepare sauce as desired.
8. Serve main item with sauce and appropriate garnish.



# Deep-Poaching: Method

1. Heat cooking liquid to 165°F.
2. Add main item, using a rack if necessary (item must be fully submerged).
3. Finish food over direct heat or in oven.
4. Remove main item, moisten, and keep warm while preparing sauce or cool in liquid, as appropriate.
5. Cut or slice main item (if appropriate) and serve with appropriate sauce and garnish.



# Poached Items: Quality Standards



- Delicate flavor representative of product, enhanced by cooking liquid
- No white spots on product exterior (coagulated protein)
- Tender, moist interior

# Poaching: Tips

## Shallow-Poaching

- Smaller, individually portioned items
- Cover item after removing from poaching liquid
- Start cooking in cold liquid for a clear broth

## Deep-Poaching

- Larger items
- Cover item after removing from poaching liquid
- Start in cold liquid

# Steaming

- 212°F+
- Gentle vapor bath
  - Main item never in direct contact with liquid
- Covered tightly during cooking
- Delicate flavor and texture
- Sauce made separately



# Steaming



- Hot steam (not fat) conducts heat to food
- Low calorie/ fat
- No agitation-- gentler on delicate items like seafood
- Food stays moist since it is bathed in water vapor.
- Not submerged in liquid-- avoids leaching nutrients
- Sauce made separately

# Steaming

- Naturally tender cuts of meats and fish
- Suitable foods:
  - Chicken, game birds, fish, shellfish, fruits, vegetables
- Wrappers
  - Lettuce leaves
  - Seaweed
  - Corn husk
  - Leek strips

# Steaming: Equipment



- Pot/ pan with tight-fitting lid
- Tiered Steamer
- Steamer basket
- Instant pot

# Steaming Method

1. Bring liquid to a boil or preheat steamer.
2. Add main item to steamer and arrange on a rack in a single layer.
3. Cover steamer.
4. Steam food to desired degree of doneness.
5. Serve food immediately with appropriate sauce and garnish.





# Steaming: En Papillote

- French: "in paper"
- Often used for cooking fish
- Item enclosed in a pouch of parchment paper or aluminum foil
- Heated so it cooks in own steam
- A little liquid (often wine), lemon, herbs, and/or thinly sliced vegetables can also be added



# En Papillote: Method



1. Cut parchment into heart shape large enough to hold food.
2. Lightly oil or butter wrapper to prevent burning.
3. Arrange vegetables, aromatics, or sauce on half of wrapper, top with main item.
4. Fold the other half over.
5. Crimp edges to tightly secure.
6. Place package on preheated baking sheet.
7. Bake in moderate oven until package is crisp, lightly browned.

# Steamed/ En Papillote: Quality Standards

- Delicate flavor representative of product
- Exterior
  - No deposits of white (albumen)
  - Bright, vivid colors
- Interior
  - Delicate texture
  - Cooked through, without being overcooked or rubbery

# Simmering



- Cooking food gently in liquid at a low, steady heat
- Less agitation-- just enough to allow flavors to mix
- Used for long, slow cooking processes-- less evaporation
- Tenderizes tough meat
- Revives dried grains and legumes
- Requires careful monitoring to maintain consistent simmer



# Simmering: Temperature (185-205°F)

|                     | Heat                   | Visual Activity                                   | Common Uses                   |
|---------------------|------------------------|---|-------------------------------|
| <b>Slow Simmer</b>  | Low                    | Little activity: wisps of steam and stray bubbles | Stocks, Braises               |
| <b>Simmer</b>       | Medium-low             | Gentle bubbling                                   | Soups, Stews, Sauces, Braises |
| <b>Rapid Simmer</b> | Medium/<br>Medium-high | More bubbling (still fairly small)                | Reducing sauces               |

# Boiling



- High heat, quick cooking time
- Large, vigorous bubbles can disrupt/ damage delicate foods
- Extended boiling toughens and dries meats, breaks down vegetables
- Used for stronger, hearty foods like beans, pasta, or tough vegetables



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Any Questions?