



Culinary Institute  
of America

# Moist-Heat and Combination Cooking



# Learning Objectives

- Define and execute moist-heat and combination cooking techniques.
- Identify appropriate tools/equipment and ingredients that may be used for each method.
- Describe pre-preparation techniques.
- Discuss the importance of temperature control and heat management when applying these methods.
- Identify various sauces that may accompany these items.

# Moist-Heat Cookery

Cooking methods that use water or steam to transfer heat and cook food gently

## Key characteristics:

- Uses liquid or steam as the heat source
- Lower temperatures than dry-heat methods
- Promotes tenderness and moisture retention

## Best for:

- Fish
- Eggs
- Grains
- Legumes
- Vegetables
- Tough meats

## Common types:

- Poaching
- Steaming
- En papillote
- Boiling
- Simmering

# Poaching

- Items are cooked in liquid at **160–180°F**
  - Can be shallow or deep poached

## **Key characteristics:**

- No bubbling; surface may slightly shiver
- Preserves moisture, shape, texture
- Ideal for tender, delicate foods
- Limited additional oils and fats
- Short holding times

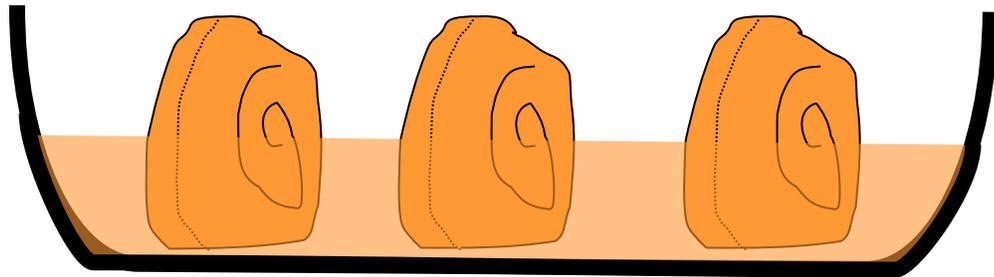
**Common liquids:** water, stock, court bouillon, milk, or wine with or without seasoning

**Best for :** eggs, fish, poultry, fruit



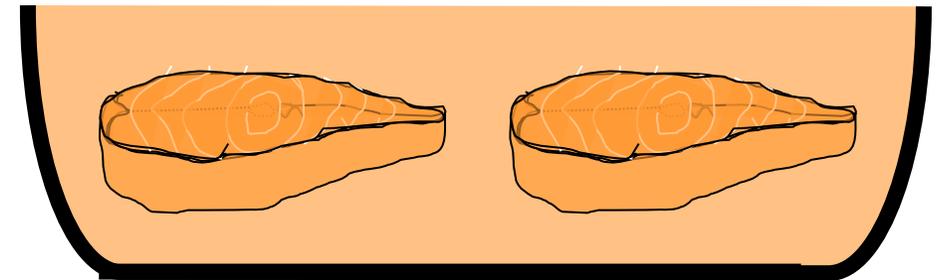
## Shallow Poaching

- Less liquid used
- Portion-size cuts
- Combination of steam and acidic liquid with aromatics
- Lightly covered to trap steam
- Cuisson (liquid) used to make sauce
- Often cooked in oven



## Deep Poaching

- Completely covered with liquid
- Portion size or larger cuts
- Never covered
- Cooking liquid not generally used for sauce
- Cooked on range



# Shallow-Poaching: Method

1. Layer butter and aromatics in sauteuse
2. Add main item and poaching liquid
3. Bring to a simmer
4. Cover with buttered parchment
5. Finish on stove or in oven
6. Remove item, moisten, and keep warm
7. Reduce cuisson and make sauce
8. Serve with sauce and garnish



# Deep-Poaching: Method

1. Heat cooking liquid to 165°F
2. Add main item, use rack if needed (fully submerge)
3. Finish food over direct heat or in oven
4. Remove main item, moisten, and keep warm while preparing sauce or cool in liquid
5. Cut or slice main item
6. Serve with sauce and garnish

**Note:** myosin (protein) breaks down at 100°F and coagulates at 120°F



# Steaming

- Items cooked by direct contact with steam at **212°F**, without being submerged in liquid

## **Key characteristics:**

- Food retains shape, color, flavor, nutrients
- Gentle method, no agitation/breakage
- Covered tightly to trap steam
- Delicate interior, vivid exterior

**Equipment:** steamer baskets, combi ovens, bamboo steamers, steam jackets

**Best for:** vegetables, seafood, dumplings, grains, delicate proteins



# Steaming en Papillote

- “In paper”
- Main item and accompaniments cooked in steam from natural juices
- A little liquid (often wine), lemon, herbs, and/or thinly sliced vegetables can also be added
- Item enclosed in parchment paper, foil, banana leaves, corn husks, etc.
- Dish often presented in wrapper
- Make this at your next Pulehu?



# Boiling

- Items are cooked in liquid at **205°F+**
- 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



# Simmering

- Items are cooked in liquid at **180°F-210°F**

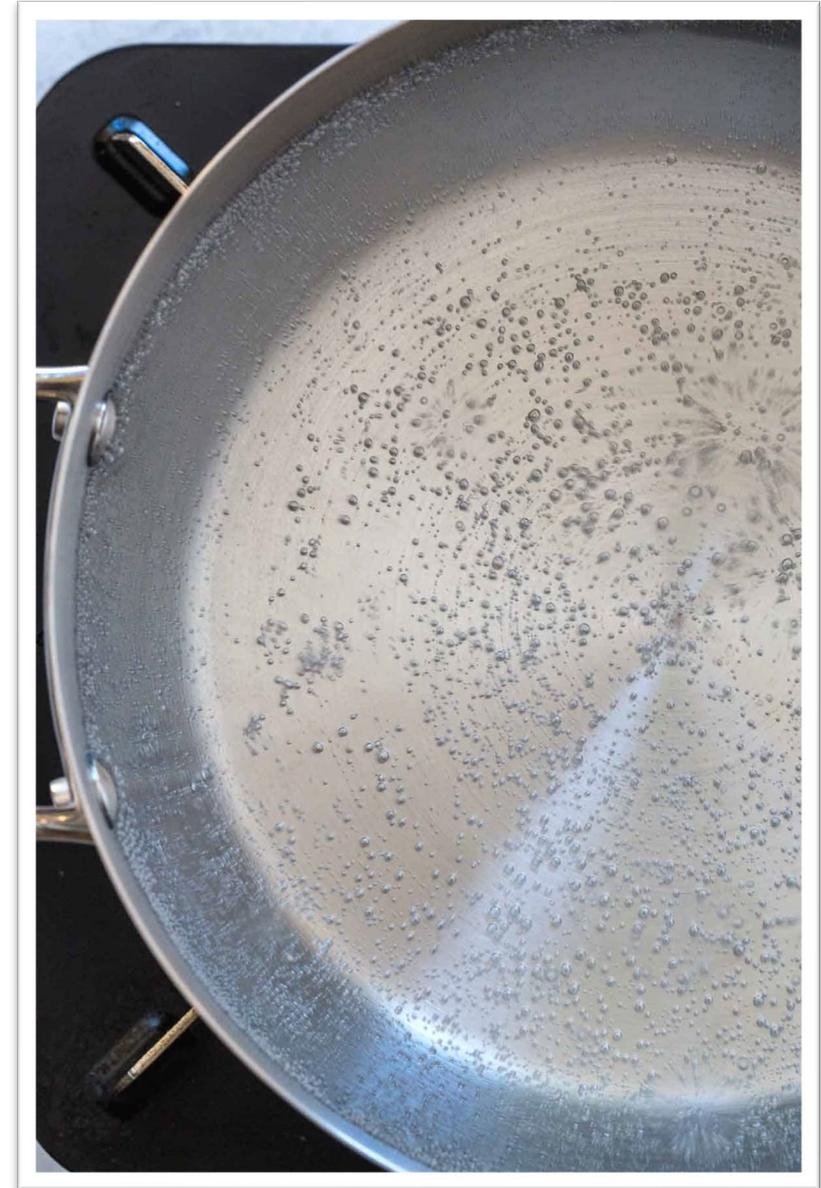
## **Key characteristics:**

- Gentle bubbling, small consistent bubbles
- Gradual flavor development and tenderizing
- Less agitation than boiling, minimizing food breakage

## **Common uses:**

- Stocks, soups, stews, sauces
- Braised dishes after initial searing
- Grains, legumes, and tougher proteins

**Benefits:** extracts flavor and preserves texture



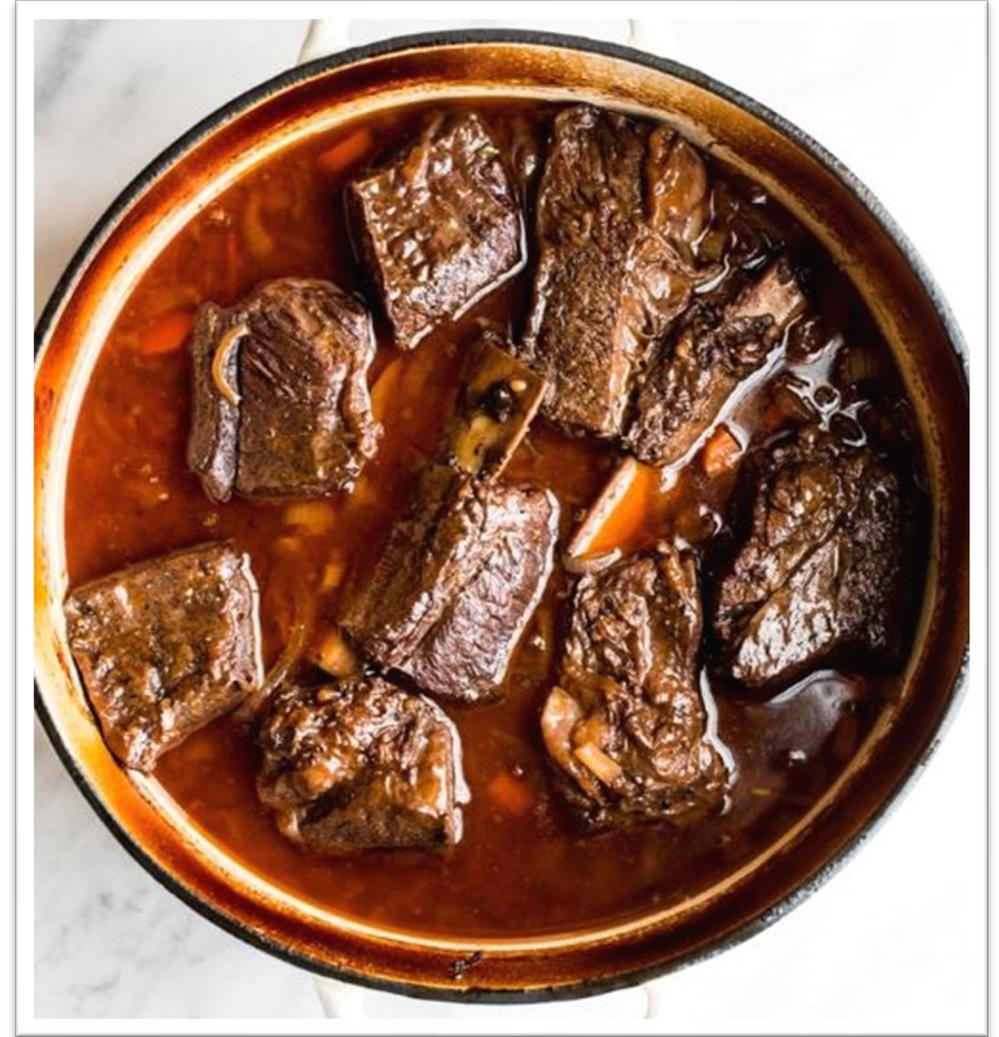
# Braising

- Large items are seared using dry heat to brown, followed by slow cooking in a small amount of liquid

## Key characteristics:

- Food is partially submerged in flavorful liquid
- Cooked covered at low temperatures
- Typically done in the oven or on the stovetop

**Best for:** tough meat, hardy vegetables



# Stewing

Small, uniform items are first optionally seared/blanched, then fully submerged in liquid and simmered slowly until tender

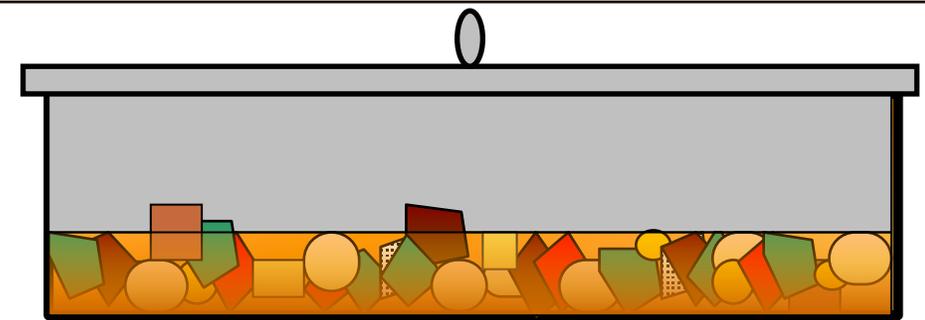
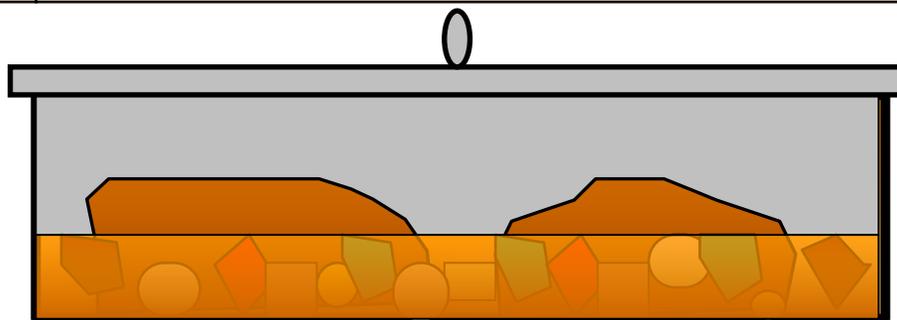
## **Key characteristics:**

- Food is fully submerged in flavorful liquid
- Cooked covered at low temperatures
- Typically done on the stovetop
- Results in a thick, hearty sauce or gravy

**Best for:** tough cuts of meat, legumes, dense vegetables



	<b>Braising</b>	<b>Stewing</b>
<b>Size</b>	Large, multi-portion	Small, uniform, bite size pieces
<b>Liquid</b>	Covers $\frac{1}{3}$ to $\frac{1}{2}$ item or 3 to 4 oz. per portion	Fully covers item
<b>Garnish</b>	Cooked separately	Cooked with item or separately
<b>Sauce</b>	Strained, roux thickened	Not strained, roux thickened
<b>Cooked</b>	In oven (covered)	In oven (covered) or on range (uncovered)
<b>Cooking Time</b>	Longer	Shorter





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Any Questions?