Culinary Institute of America

Mise en Place, Seafood Safety, Knives, & Lobsters

Day 1

Learning Objectives

- Demonstrate an understanding of kitchen responsibilities, mise en place, and knife safety.
- Discuss seafood safety and sanitation practices, and how they differ for different kinds of seafood.
- Explain the difference between foodborne food poisoning and foodborne illness.
- Identify various knives and equipment used for fabricating seafood.
- Describe lobster anatomy and gender variations.
- Fabricate a lobster.
- Describe ideal cooking methods for lobsters.

Kitchen Responsibilities

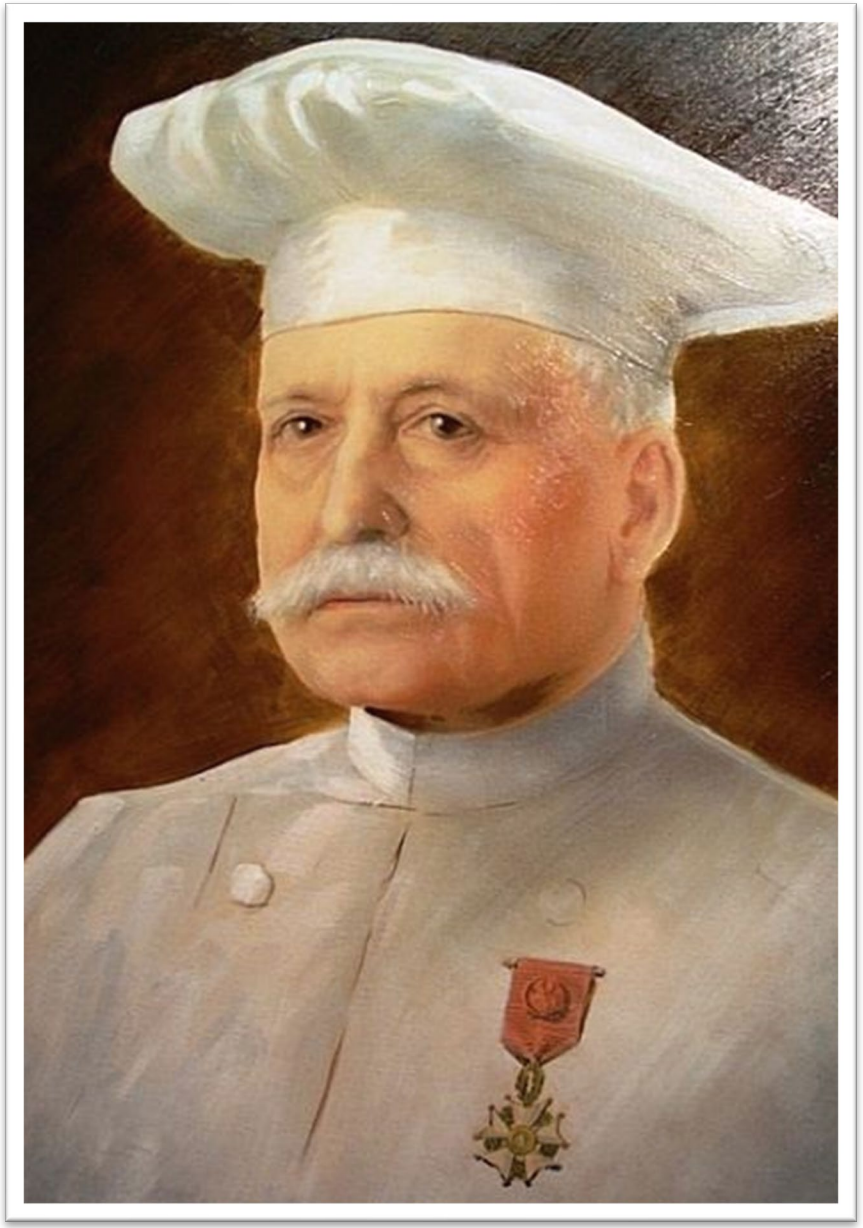
- Silence and put away phones
- Clean your workstation as you go
- Place waste in proper receptacle:
  - **Green**: food scraps for compost
  - **Blue**: recyclables
  - **Gray**: trash for landfill
- Use paper towels, cleaning cloths, red sanitizer bucket for spills
- Use side towel for handling hot objects, not for cleaning
- Place dirty utensils, tools, etc. on speed rack, not in sink
- Place anything with an edge in pan labelled “Sharps Only”
- Place dirty linen in linen bag

Food Safety

- Keep hair contained with toque, hair net, hair tie, beard guard
- Wash hands before starting work
- Wash hands after:
  - Touching hair, face, phone, pen, etc.
  - Coughing/sneezing into tissue
- Wash all produce well under running water
- Wash cutting board, knives, tools after each use
- Keep perishables refrigerated until needed
- Wear gloves when handling ready-to-eat food
- Keep raw meat, poultry, eggs, seafood separate from other foods
- Cook food to the temperature safe zone

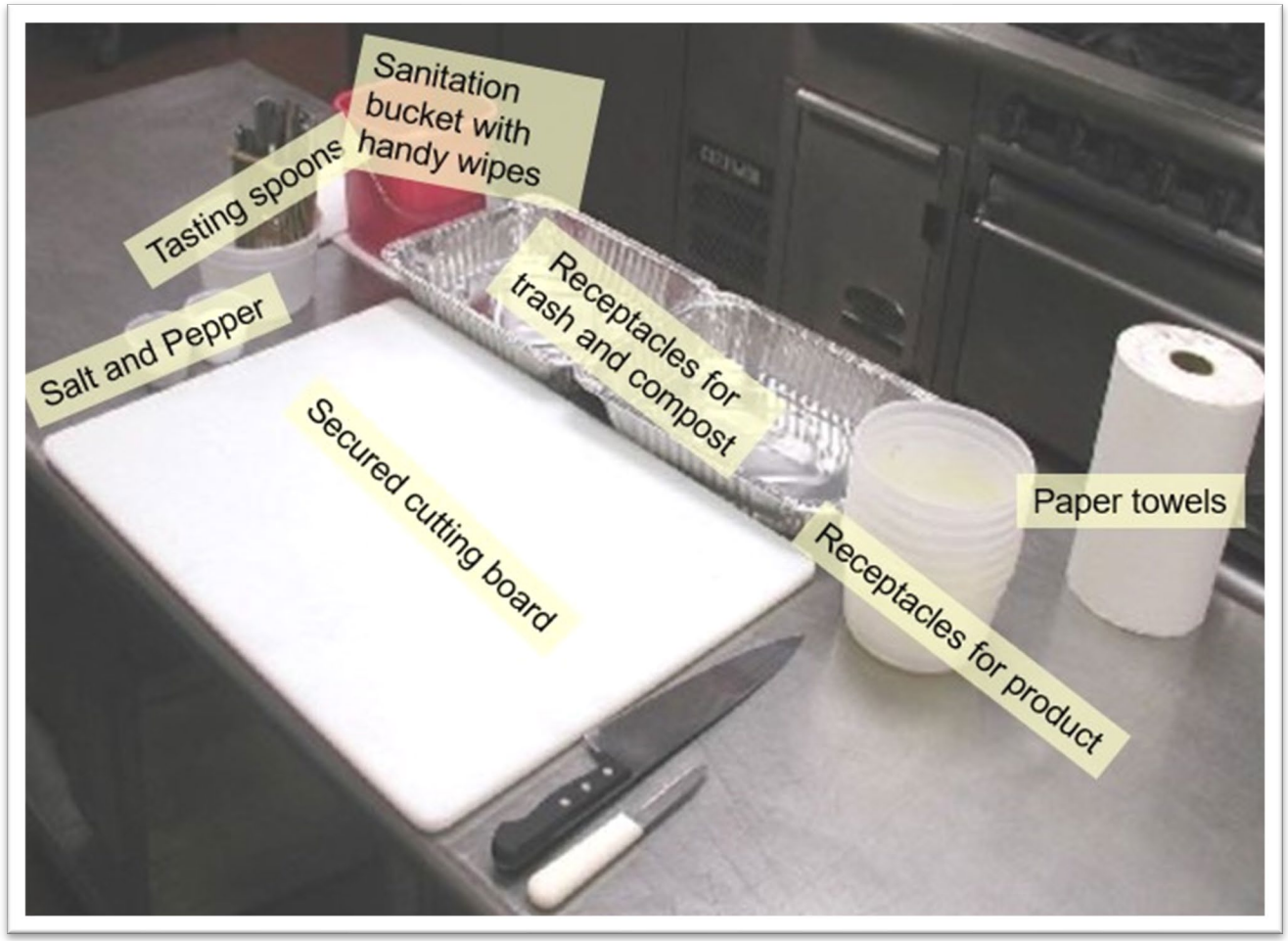
Mise en Place

- French for “everything in its place”
- Organizational system developed in 1800s by Auguste Escoffier, a former soldier
- Preparing the workspace and planning the cooking process
- Having everything ready **before** you cook, bake, or assemble your dish
- Vital part of all successful kitchens, required skill of professional chefs



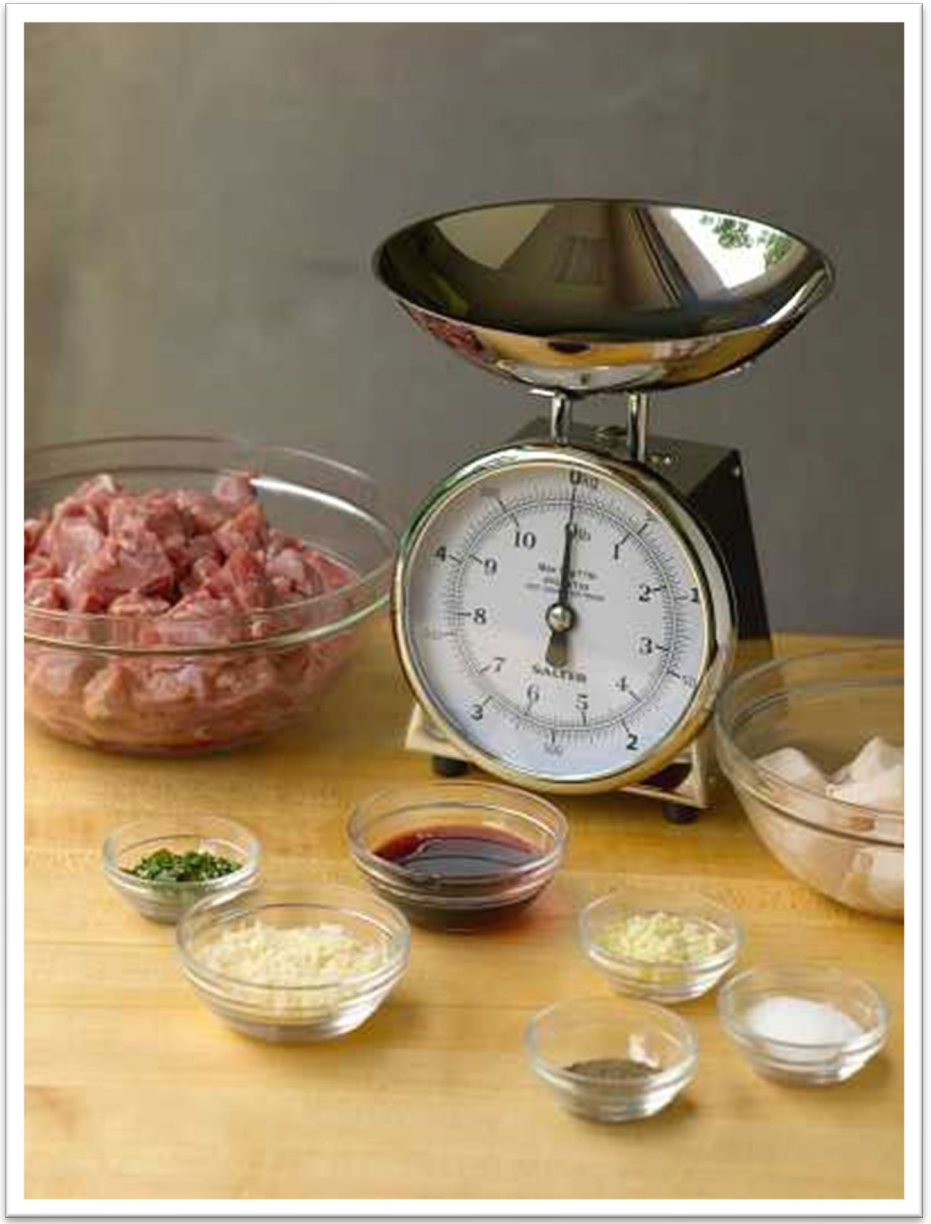
Workstation Mise en Place

- Clean, sanitized equipment
- Work surface at right height
- Cutting board secured (on damp towel/sheet pan for messy work)
- Bain-maries with hot water for holding tools
- Salt, pepper, tasting spoons, paper towels, sanitation bucket
- Trash, compost bins
- Timers, thermometers, tools



Recipe Mise en Place

- Read entire recipe before starting
- Review yield, temp., cook times
- Understand terms, techniques– ask questions if unsure!
- Visualize the cooking process
- Focus your mindset
- Complete any pre-steps (soaking, marinading)
- Gather, measure/weigh all ingredients
- Complete basic prep (wash, trim, grind, dice, etc.)



Monitoring Temperature for Seafood Safety

- Use HACCP-compliant software to consistently monitor temperature
- Maintain cold, stable conditions to prolong shelf life
  - 32°F = up to **10 days**
  - 41°F = up to **5 days**

Why ice matters:

- Ice provides high cooling capacity and prevents surface dehydration
- As ice melts, water conducts heat away from fish more effectively than air

Cold Storage and Labeling Guidelines

Storage Best Practices:

- Label and date all items
- Use FIFO (First In, First Out): use older products before new ones

Refrigeration Standards:

- Keep fish between 34°F and 40°F
- Regularly check storage units for compliance
- Proper storage = longer shelf life + better quality

Freezing and Thawing Guidelines

Freezing:

- Freeze at **0°F** or lower
- Shelf life: **3–10 months**, depending on fat content
  - **Oily fish** = shorter storage
  - **Lean fish** = longer storage

Thawing Safely:

- **Refrigerator**: 12–14 hours (ideal method)
- **Alternative**: under cold running water, in sealed packaging

Type	Fresh Holding Time	Frozen Holding Time
Fresh seafood	Below 40°F: 1-3 days depending on source	Freezer 0°F: 3-10 months depends on oil
Cooked Seafood	1 – 3 days based on freshness, how fast it was chilled	1 to 2 months
Frozen Seafood	Only refrigerate to thaw	2 to 4 months
Smoked Fish	1 to 2 days	Loses quality
Dried/ cured Fish	6 months: depending on species, how it was cured	Not recommended
Seafood soups, stews	1 to 3 days	3 to 6 months

HACCP and Seafood Safety Standards

Regulatory Requirements:

- Seafood HACCP plans must be reviewed by the USDC
- Plans must cover all pathogen-prone steps
- Suppliers undergo annual inspections

Impact:

- Compliance reduces foodborne illness risk but can increase cost to consumers
- All U.S. and foreign seafood suppliers are required to have a HACCP plan

Understanding Foodborne Illness

- Seafood's high water content makes it more vulnerable to pathogens than meat
- **Foodborne Poisoning:** caused by improperly cooked, handled, or stored food
- **Foodborne Illness:** results from biological contamination; may involve:
  - **Intoxication:** eating toxins from bacteria, molds, or plants/animals
  - **Infection:** consuming food with a high concentration of live pathogens

Preventing Contamination and Managing Risk

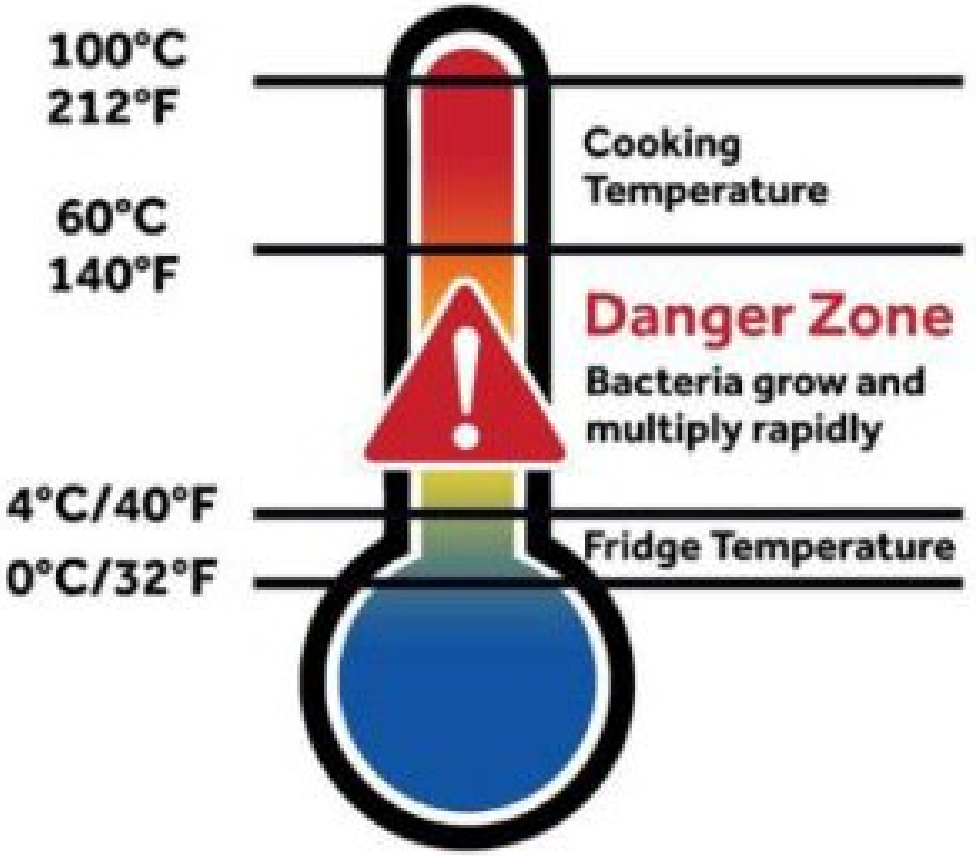
Cross contamination: pathogens move from dirty to clean surfaces

Prevent it:

- Wash hands often
- Change gloves between tasks
- Wear gloves for ready-to-eat foods

Danger zone:

- 41°F–135°F = fast bacteria growth
- Keep food outside this range



Knives

Flexible smoked salmon slicer:

- For thin, even slices
- Hollow-ground blade prevents sticking
- Glides smoothly through fish

Large fillet/steak knife:

- Slim, flexible blade
- Clean, precise cuts
- Great for yield and control

Ridged fillet knife

- Long, thin, flexible blade
- Smooth, precise cuts
- Keeps texture intact

Knives

Flexible fish knife

- Thin, bendable blade
- Smooth cuts near bones and skin
- Best for delicate fish

Medium-sized fillet knife

- Narrow blade = less friction
- Clean, precise cuts
- Ideal for filleting from carcass

General utilities/chef's knife:

- Sharp tip, long blade
- Cuts heads, segments, herbs
- Great for sushi and sashimi

Japanese Knives

Sujhiki

- Long, thin blade
- Clean, even cuts
- Keeps texture intact

Kasumi:

- Softer, shiny finish
- Easy to use and sharpen
- Great for home or pro kitchens

Honyaki:

- Hand-forged high-carbon steel
- Extremely sharp, holds edge
- Preserves delicate texture

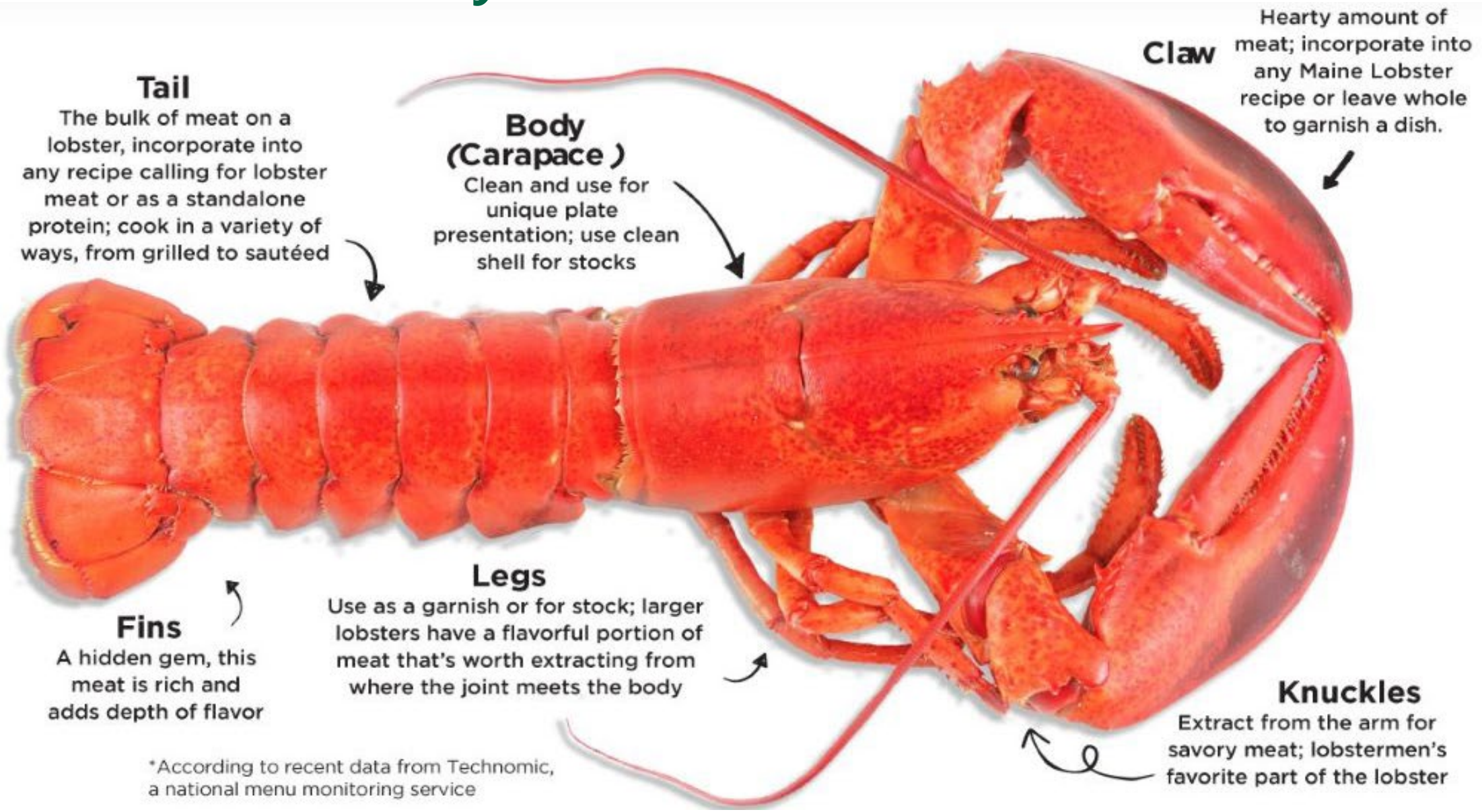
Other tools

- **Scaler**
- **Pin bone extractor**: removes bones
- **Tweezers**
- **Pliers**
- **Clam knives**: opening, shucking clams
  - Pry open without damaging flesh
- **Oyster knives**: opening oysters
  - Blunt or pointed tip, allows for precise insertion into the oyster's hinge, without damaging flesh

Lobster

- Shell made of a hard exoskeleton (crustacean)
- Meat located in claws, knuckles, tail, legs, and body cavities
- Firm, sweet, lean meat with mild briny flavor
- Shell turns bright red when cooked
- Found in saltwater

Lobster Anatomy



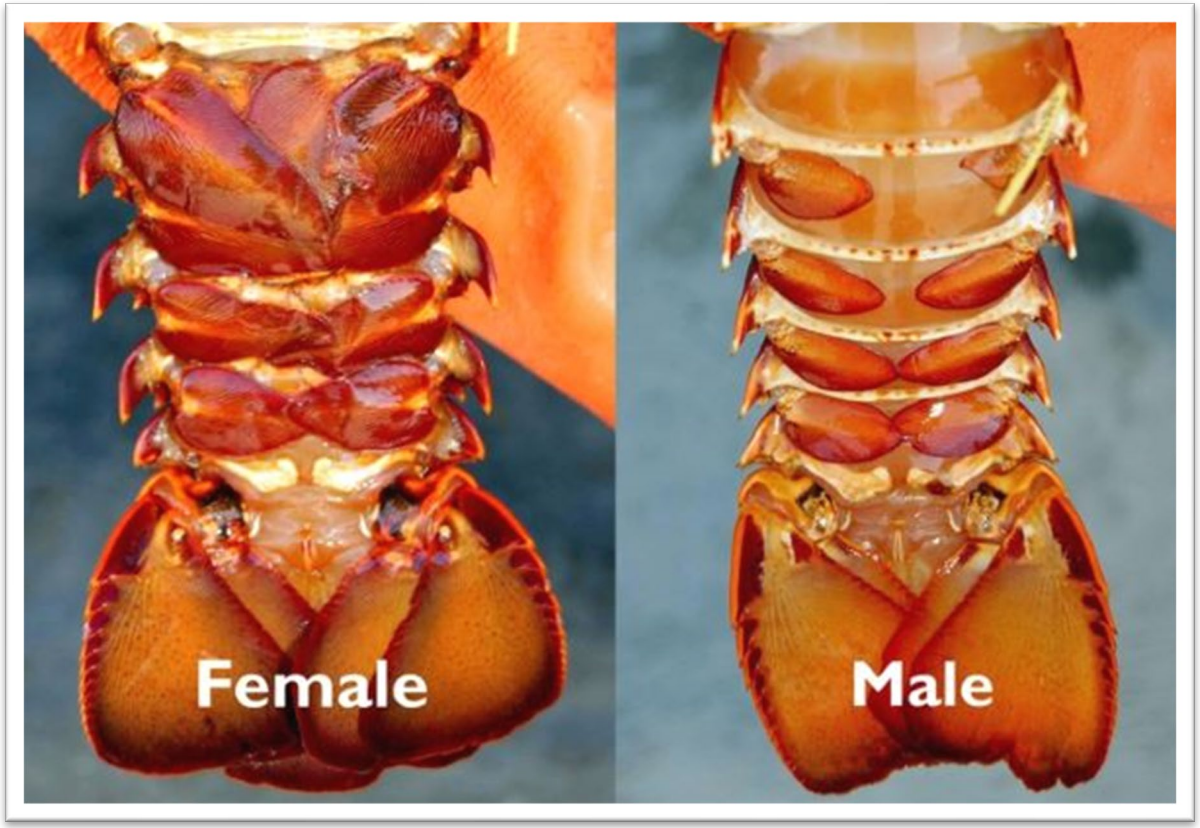
Male vs Female Lobsters

Female

- **Tail:** wider, more meat
- **Claws:** smaller, less meat
- **Swimmerets:** soft/feathery (egg carriers)
- May have more fat in tail = richer flavor

Male

- **Tail**: narrower, less meat
- **Claws:** larger, more meat
- **Swimmerets**: hard/stiff



Whole Lobster Fabrication: Tail

1. Cook the whole lobster until the internal tail temperature reaches 140–145°F.
2. Twist off the tail.
3. Hold tail firmly; crack the shell by squeezing it until it breaks.
4. Use thumbs to peel back the shell and extract the meat in one piece.

Whole Lobster Fabrication: Claw and Knuckle

5. Twist off claws and knuckles.
6. Snap knuckles from claws at the joint.
7. If present, remove cartilage from claws by gently pulling it out or using a paring knife.
8. Cut knuckles in half with scissors to extract the meat.

Whole Lobster Fabrication: Body and Legs

9. Separate top shell from body.
10. Discard feathery gills; reserve body and top shell for stock.
11. Remove legs from body.
12. Lay legs flat and use a rolling pin or back of a chef's knife to push meat out.
13. Save leg shells for stock.

Popular Cooking Techniques

Boiling:

- Cooked in heavily salted water until shell turns bright red and meat is firm
- Fast and efficient for multiple whole lobsters

Poaching:

- Gentle cooking method (160–180°F) using butter or court bouillon
- Keeps meat soft, moist, and delicately flavored

Popular Cooking Techniques

Steaming:

- Uses even, moist heat to preserve flavor/texture without waterlogging

Sautéing:

- Quick-cook method for tail or claw meat using butter or oil

Grilling/Broiling:

- High heat adds smoky flavor and presentation appeal
- Best for halved or tail-on lobster
- Brush with fat to prevent drying

American Lobster

European Lobster

Spiny Lobster

Slipper Lobster

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Any Questions?