

Fabrication of Fish (Lecture 17)

Market Forms of Fresh Fish

Whole: The fish is literally untouched, without anything removed.



Drawn: Viscera/entrails/gut have been removed and stomach cavity cleaned.



Dressed: Gut, all fins, and scales are removed; sometimes head and tail also.



Filleted and Trimmed: The flesh is removed from the bone and trimmed into fillets; skin is also removed at this stage.



Portioned: Fillets are cut into specifications.



Classification of Fish

1. Round White

- Vertical backbone
- Fillet on either side
- One eye on each side of the head
- The flesh is white in color



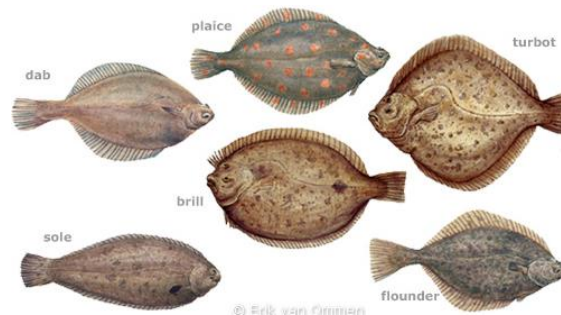
2. Round Oily

- Vertical backbone
- Fillet on either side
- One eye on each side of the head
- Flesh varies in color from shades of red to dark purple to off-white
- Fat content varies from 26% for an eel family to 12% for salmon family to 6% for herring family.



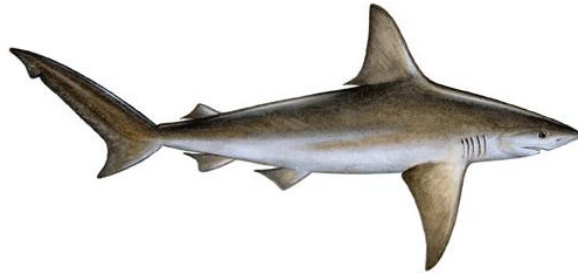
3. Flat White

- Horizontal backbone with 2 fillets on either side
- Both eyes on the topside of the head
- Light-colored skin underneath, dark on top



4. Non-Bony

- Have cartilage instead of bone
- Examples: shark, rays



Handling and Storage

Fresh Fish

- ✓ Cleaned and gutted to preserve freshness
- ✓ Gills should also be removed
- ✓ Should be received on self-draining ice
- ✓ Should be refrigerated at (0-1°C) as soon as received
- ✓ Seal in plastic wrap if skinned when received
- ✓ Should not come in contact with other foods
- ✓ Should not be exposed to air unnecessarily

Frozen Fish

- ✓ Should be wrapped and sealed in moisture-proof and vapor-proof material
- ✓ May be frozen by glazing
- ✓ Commercially frozen should be placed in the freezer in their original packaging, immediately after purchase.
- ✓ Store at -18 °C
- ✓ Date packages for easy rotation

Quality Points for Selection

- ✓ Eyes should be bright and full, not sunken
- ✓ Gills should be bright pinkish red in color
- ✓ Flesh must be firm and springy, or elastic
- ✓ Scales, if any, should be plentiful and firm and should not come off when handled
- ✓ Should have a pleasant, salty smell
- ✓ Skin should be shining and have a good color

- ✓ Flesh of white fish should be really white, not yellowish
- ✓ Should feel heavy in relation to size

Staleness Indicators

- ✓ Unpleasant ammonia odor
- ✓ Sunken eyes with loss of clarity
- ✓ Gills will be dull and discolored

Fish Fabrication

Fabrication is the process of cutting primal cuts into usable portions. The steps of fish fabrication are given below:

1. Scaling (the removal of scales from the skin of the fish)
2. Trimming
3. Gutting (remove the intestines and other internal organs of a fish or other animal before cooking it.)
4. Filleting (a boneless cut or slice of fish)

Cuts of Fish

a. Steaks

Fish steaks are simply crosscuts of the fish and relatively easy to cut. The fish is scaled, gutted and trimmed of its fins and gills. Steak can be of virtually thickness. Use a chef's knife to make crosswise cuts through the fish to yield steaks of the desired size.



b. Tranche

A tranche is simply a slice of the fillet. It is cut by holding the knife at an angle while cutting to expose more surface area and give the piece of fish a larger appearance. A tranche can be cut from any relatively large fillet of fish, for example salmon or halibut. Though this cut is normally associated with sautéed or pan-fried dishes, a tranche is often grilled or broiled.



c. Paupiette

A paupiette is a rolled thin fillet filled with a force meat or other stuffing. The most common preparation technique for paupiettes is shallow poaching.



Use of Different Fish Cuts

Grilling

Always well grease grill pan or rack. Brush the fish with oil or butter, then cook under a preheated grill.

Baking

Unless baking in liquid, always well grease the dish. Bake in a moderate oven.

Shallow frying

Coat the fish with seasoned flour or egg and crumbs and fry.

Deep frying

Coat the fish with seasoned flour, batter or egg and crumbs. Preheat the oil to 190 °C and then fry.

Quality of Meat

Serving meat is one of the most expensive, yet profitable areas. Meat can be purchased from a whole carcass to individual cuts of meat. Quality can be defined as the inherent characteristics of any product which affect its acceptability by consumers.

U.S. Department of Agriculture has established grades called quality grades

Quality Grade: Standards given to meats based on their freshness and quality

Yield Grade: Refers to the amount of usable meat after the fat has been trimmed (this only applies to lamb and beef).

In case of meat we discuss two quality parameters.

1. Compositional quality
2. Eating quality/Palatability

1. Compositional quality

It includes lean to fat ratio, more lean meat indicates good quality of meat.

2. Eating quality/Palatability

It includes four parameters

- a. Appearance
- b. Flavor
- c. Juiciness
- d. Tenderness

a. Appearance

It includes

Water holding capacity

Meat with more water holding capacity will not dry and not so much moist/sticky and after cooking remain tender. A good quality meat will hold water within the meat.

Marbling

Marbling is streaks of fat within muscles and it improves juiciness, tenderness and appearance of meat and recommended for good quality meat.

Color

Good quality meat is that having uniform color throughout the entire cut. Color depends upon the quantity of myoglobin and its chemical state.

Chemical State	Color of meat cut
Myoglobin	Purplish red
Oxymyoglobin (oxygenated form of myoglobin)	Bright Red
Met myoglobin (oxidized form)	Brown

b. Flavor

It depends on:

Water soluble components in meat, diet of animals, use of animal, cooking method.

c. Juiciness

More water holding capacity and more marbling results in good quality meat.

d. Tenderness

It depends on:

Age of animal, sex of animal, muscle location, aging, temperature during the onset of rigor mortis.

Grading of Meat

Grading is segregation of meat on the basis of quality.

Meat Grade	Characteristics
Prime grade	Abundant marbling, meat of young animal
Choice grade	Much marbling but less than prime grade, meat of young animal
Select grade	Marbling is present, but less than prime and choice grade, meat of young animals
Standard grade	No marbling, meat of young animal
Commercial grade	Marbling is present, meat of mature animal
Utility grade	No marbling, meat of mature animal

Storing Meat

- Sanitary procedures must be followed when storing meats.
- Meat should be loosely wrapped in air-permeable paper and stored under refrigeration.
- Never tightly wrap fresh meats in plastic wrap because this creates a perfect breeding ground for bacteria and will severely limit the shelf life.