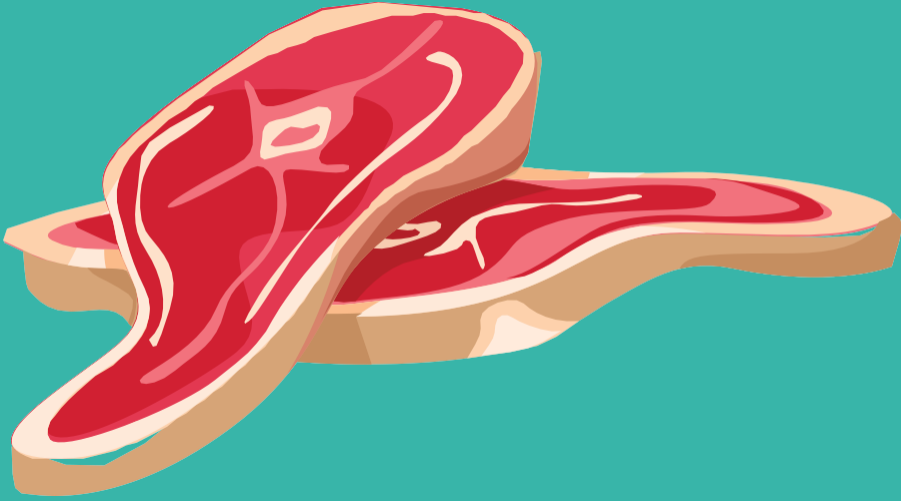


## A Guide to



# Cold Storage and Safety of Meat

Disclaimer: The English version is a translation of the original in Arabic for information purposes only.  
In case of a discrepancy, the Arabic original will prevail.



بالأهم  
#الضوء\_والصوت

# Goal



This Guide is intended to keep consumers informed about the safety and wholesomeness of meat, sold at local market, from farm to table. It highlights the importance of warding off the environmental impact on meat while placed on the market.

## Interpretation:

### Carcass:

An animal body slaughtered, according to the Islamic law, for human consumption.

### Fresh Meat:

Meat kept at room temperature after the meat is taken from healthy animals slaughtered according to Islam, and has not undergone preservation or any processing that may change its properties,

### Chilled Meat:

Fresh meat stored in a refrigeration room at a core temperature of or below 4 °C for no longer than 24 hours.

### Frozen Meat:

Fresh meat which is initially refrigerated and then frozen at a temperature between - 18 to- 35 °C.

### Quick freeze:

A process whereby a product is frozen rapidly below the thermal point.

### Core Temperature;

The temperature in the Center of food marking the highest set point compared to the remaining parts of the product in the final freezing stage.

### Drip loss

The percentile loss in weight of meat owing to meat juices oozing during the thawing of frozen meat.





## General Requirements of Carcasses:

- The meat must be taken from animals slaughtered in accordance with the Islamic law and in a way that ensures complete bleeding of the carcass.
- The meat must be taken from animals originating in regions free of outbreaks, epidemiological diseases, radiation or any other contaminants.

When slaughtering animals subject to veterinary drug treatment, consideration must be given to the withdrawal period recommended by the drug manufacturer.

The slaughter must be immediately followed by postmortem preparations (e.g.;skinning, eviscerating, decapitating, removing the limbs ...etc.) while ensuring that the meat is clear from contamination with the internal organs (viscera).

The meat must be washed in clean running potable water. The animal must be slaughtered in licensed and authorized butcheries and abattoirs.

- The meat surface must be clear of any dirt or microbial growth, or any signs of spoilage.
- The meat must maintain all its qualitative and quantitative properties.
- The meat must be natural in terms of appearance color, and free from any unpleasant odor.



## Chilled Meat Requirements:



- As far as chilled meat is concerned, the meat must be mechanically refrigerated immediately after slaughter at a core temperature between 1 and  $-5^{\circ}\text{C}$  within no longer than 24 hours.
- No drip loss is allowed inside chilled meat packages.



## Frozen Meat Requirements:

- As far as frozen meat is concerned, the meat must be frozen at a temperature between  $-18$  and  $-35^{\circ}\text{C}$  with a core temperature of no higher than  $-18^{\circ}\text{C}$  within as soon as possible and within a maximum time of 48 hours from the time of slaughter.
- The drip loss in frozen meat must not be greater than 5% of the total weight of the carcass or meat cut.
- The product must not show any signs of melting ice, refreezing, contamination or mishandling.
- Frozen meat must not be refrozen after thawing.
- Water must not be used to add weight to carcasses or meat cuts.



## Packing and Packaging:

- The packing and packaging materials must be durable, intact, healthy, and of materials which do not affect meat properties or allow for cross-contamination.
- The packing and packaging materials must provide protection to the whole carcass or meat cuts in transit or during storage and distribution.

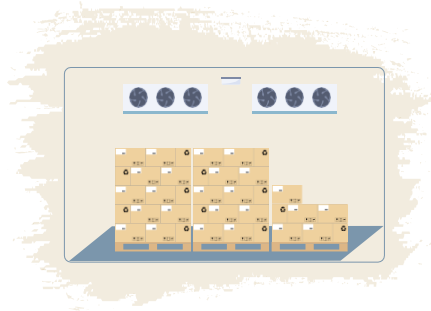
- The meat must be vacuum-packed, or gas-packed, and hermetically sealed.
- The containers, casings or wrappings used as packing and packaging materials for meat must only be used once.
- The packing must be carried out under cooling conditions and at a temperature of  $(1 \pm 0.5)$  °C.
- Only homogenous meat cuts are packed together. Using the same package for different types of meat or meat from different carcasses must not allowed.

## Transportation:



- Fresh, chilled, frozen meat shall be transported with prepared means of transportation of this purpose, and it shall be cleaned before.
- Fresh, chilled and frozen meat must be transported in purpose-built vehicles. They must be cleaned and, if necessary, disinfected before loading. They must not be used for moving live animals or any other substances which may affect meat properties.
- The surfaces of all the carriers or containers in contact with meat must be stainless, corrosion-resistant, smooth, and easy to clean and to disinfect.
- The transport temperature for chilled meat is  $(1 \pm 0.5)$  °C. The meat must be refrigerated prior to dispatch, while in transit, and at the time of unloading.
- The means of transport must be designed in such a way as to safeguard meat against dirt, insect, and other sources of contamination.
- The maximum temperature for the transport of frozen meat is  $(-18)$  °C.





## Storage:

- The maximum storage temperature for chilled meat is  $(1\pm 0.5)$  °C for both meat cuts and whole carcasses.
- The maximum storage temperature for frozen meat is  $(-18)$  °C.
- The fluctuation in temperature inside the refrigerator or freezer must not be higher or lower than 2 degrees Celsius.
- Carcasses and unpacked meat cuts must be hoisted or placed on appropriate corrosion-resistant surfaces, allowing for the air to circulate around the meat while preventing meat juices from travelling between different meat cuts and keeping the meat at a safe distance from walls, ceilings and floors.
- The meat must be chilled or frozen at quantities within the storage capacity of the refrigerating machine which must have a thermometer and a temperature recording equipment.





## Set Chilling and Freezing Conditions:

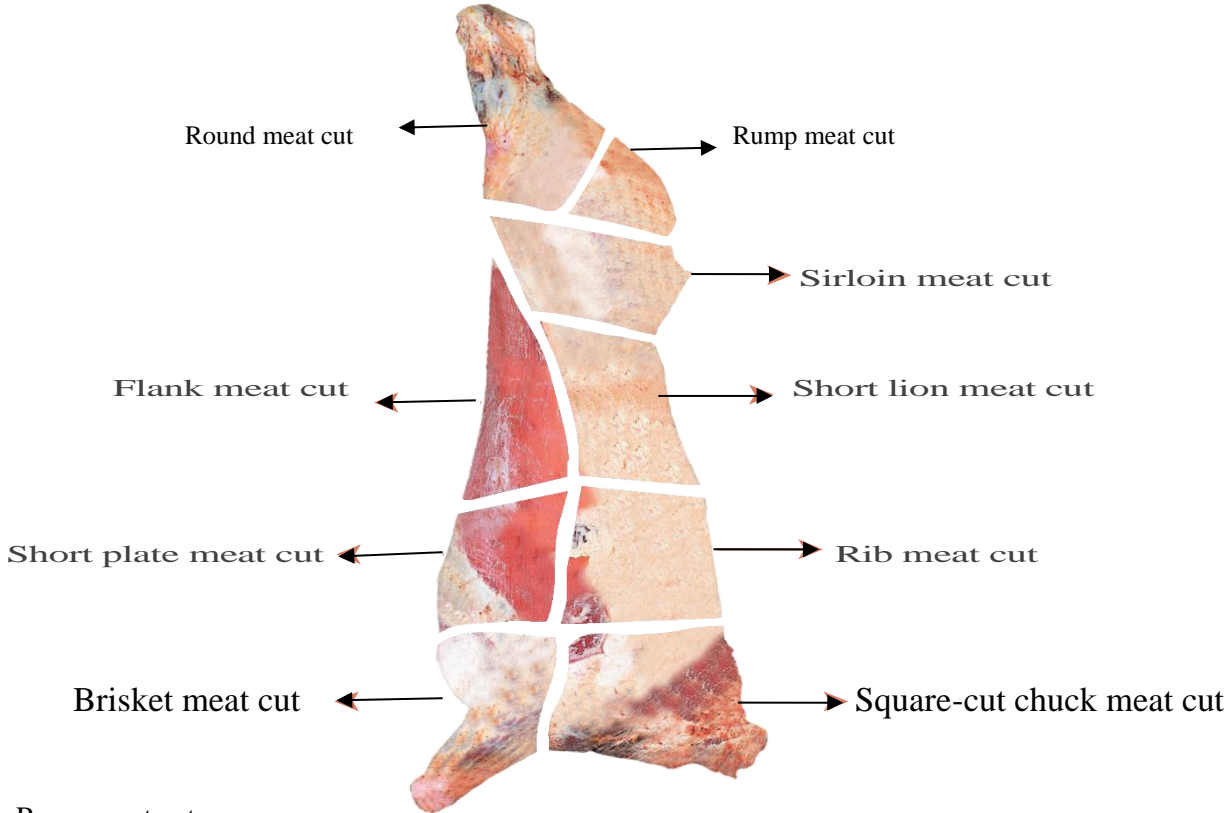


- To maintain the appropriate temperature for meat, the doors must not be left open for a long time and the storing facility for chilled and frozen meat must not be overloaded.
- The refrigeration coils must be timely wiped to prevent accumulation of ice and eventually debilitation of cooling performance. The ice must be removed cautiously without causing damage to the product.
- The temperature, relative humidity and air circulation must be kept at the right levels for the preservation of meat.



## Carcasses Cuts:

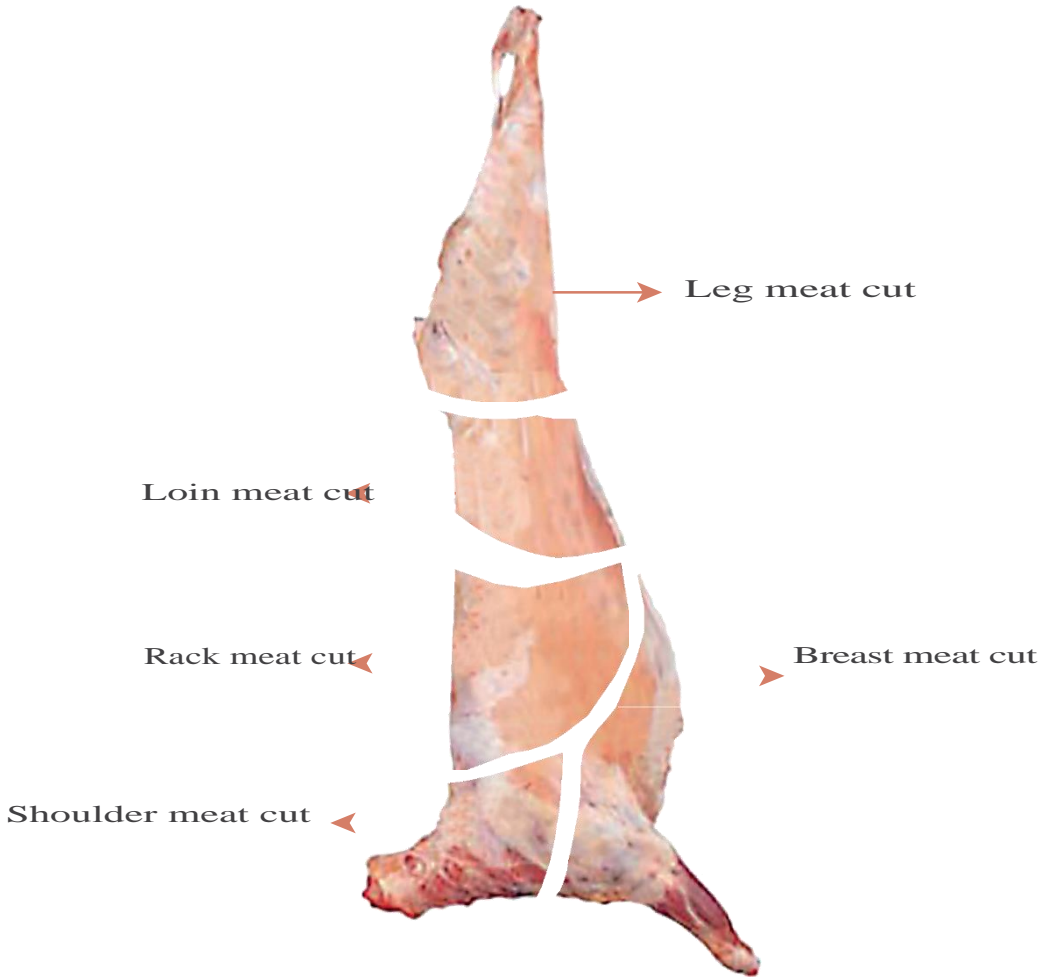
### Cows Cuts



- 1- Rump meat cut.
- 2- Round meat cut.
- 3- Sirloin meat cut.
- 4- Short lion meat cut.
- 5- Flank meat cut.
- 6- Rib meat cut.
- 7- Short plate meat cut.
- 8- Square-cut chuck meat cut.
- 9- Brisket meat cut.
- 10- Breast meat cut.



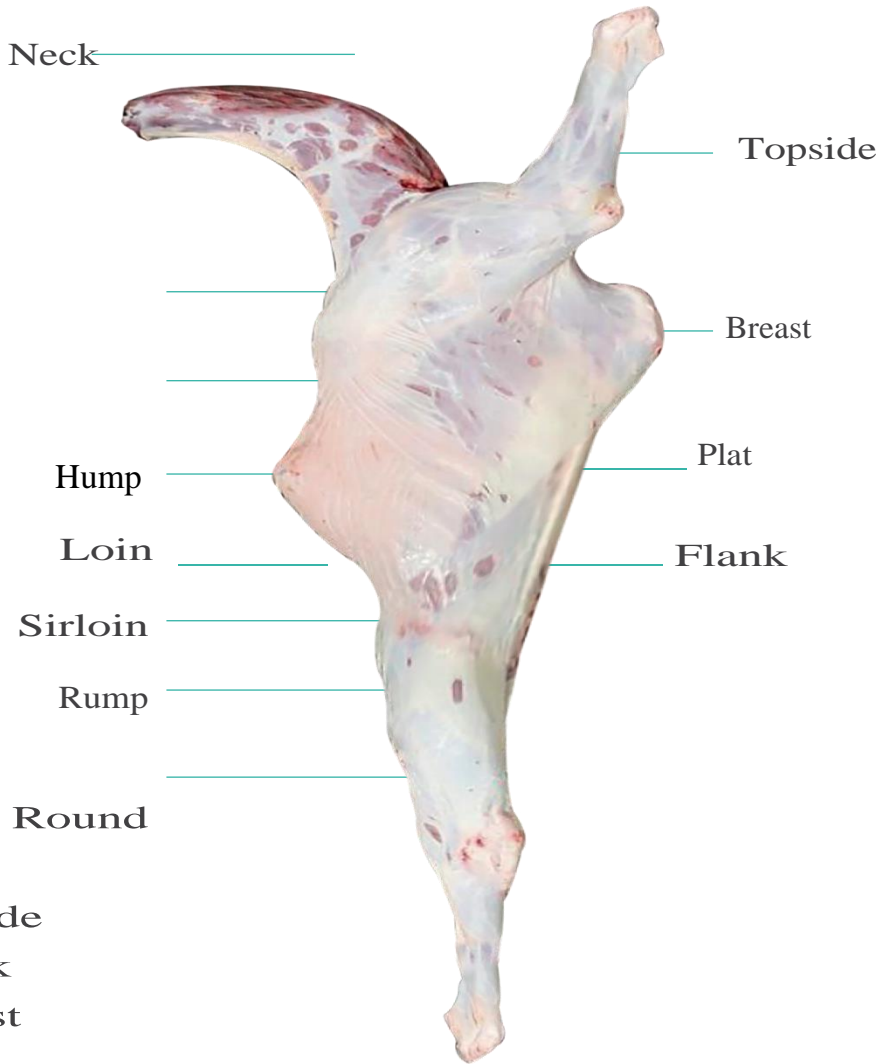
## Lamb cuts



- 1-Leg meat cut.
- 2-Loin meat cut.
- 3-Breast meat cut.
- 4-Rack meat cut.
- 5-Shoulder meat cut.



## Camels Cuts



- 1- Neck
- 2- Topside
- 3- Chuck
- 4- Breast
- 5- Rips
- 6- Plat
- 7- Hump
- 8- Flank
- 9- Loin
- 10- Sirloin
- 11- Rump

12- Round

